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Decreto Rettore Università di Roma “La Sapienza” n 3207/2020 del 16/12/2020

## Fabrizio Lirer Curriculum Vitae

### Part I – General Information

|                     |                |
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| Full Name           | Fabrizio Lirer |
| Date of Birth       |                |
| Place of Birth      |                |
| Citizenship         |                |
| Permanent Address   |                |
| Mobile Phone Number |                |
| E-mail              |                |
| Spoken Languages    |                |

### Part II – Education

| Type                  | Year                     | Institution   | Notes (Degree, Experience,...)  |
|-----------------------|--------------------------|---|---|
| University graduation | 25/02/1994               | University Federico II of Napoli  | Degree in Geological Science. Thesis titled “Rilevamento geologico dell’area di Pietra Montecorvino (Daunia Settentrionale)” with grade 110/110 cum laude   |
| Post-graduate studies | 2/5/1994 -<br>25/11/1994 | Formez of Naples (Italy) -<br>Centro di Formazione e Studi di<br>Pozzuoli di Napoli | Master in Geographic Information System and Remote Sensing. Fondo Sociale Europe obiettivo 4 misura 906022I1 autorizzato delibera Giunta Regionale n. 7113 del 28/12/1990. Prot. 4667/F del 15/12/1994 (Formez. Centro di Formazione e Studi, Arco Felice, Pozzuoli, Na)  |
| PhD                   | 17/02/2003               | University of Parma   | PhD in Earth Science at University of Parma, titled “Integrated Stratigraphy (Cyclostratigraphy and Biochronology) of Middle Miocene deposits in the Mediterranean Area and comparison with Atlantic Ocean. XIV Ciclo Dottorato di Ricerca in Scienze della Terra, Consorzio Università di Ferrara, Firenze e Parma- Università degli Studi di Parma, Servizio Borse e Dottorati Prot. N. Reg. Cert. 170 del 15/04/2003 |

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| Specialty              |  |  |  |
| Pre-doctorate training |  |  |  |
| Licensure 01           |  |  |  |
| Licensure 02           |  |  |  |

### Part III – Appointments

#### IIIA – Academic Appointments

| Start      | End        | Institution  | Position  |
|------------|------------|--|---|
| 1/03/1995  | 28/02/1996 | CNR - Centro di Studio per la Geologia Strutturale e Dinamica dell'Appennino of Pisa (Italy) | CNR - European Science Foundation (ESF), fellowship. Pos. 202. 10054 027746   |
| 21/05/1996 | 21/08/1996 | Department of Earth Science, University of Pisa  | Research contract for detailed geological survey scale 1.25.000 of n. 15 transepts straddling the seismic lines acquired by Texaco Energia S.p.A in the area of the Maddalena Mountains (Southern Apennine, Italy). Agreement between Texaco Energia S.p.A and the University of Pisa. Resolution of the Council of the Department of Earth Science of Pisa University of 20/05/1996  |
| 28/02/1997 | 28/03/1997 | Department of Earth Science, University of Pisa  | Research contract for analysis of rock fragments (cuttings) representative of the lithological intervals drilled by the Gorgone 1 well. Resolution of the Council of the Department of Earth Science of Pisa University N ° 30 of 27/02/1997  |
| 28/02/1997 | 28/05/1997 | Department of Earth Science, University of Pisa  | Research contract for analysis of rock fragments (cuttings) representative of the lithological intervals drilled by the Monte Taburno 1 well. Resolution of the Council of the Department of Earth Science of Pisa University N°29 del 27/02/1997   |
| 19/07/1997 | 19/01/1998 | Department of Earth Science, University of Pisa  | Research contract for analysis of cuttings samples from three wells, with sampling spacing ranging from five to ten meters; construction of the cutting log for each well analyzed and correlation between cuttings log and gamma ray logs, spontaneous potential and resistivity. Agreement between the Earth Science Department of Pisa University and the Enterprise Oil Expl. Ltd. Resolution of the Council of the Department of Earth Science of Pisa University N ° 91 of 18/07/1997 |

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|------------|------------|---|--|
| 29/01/1998 | 29/07/1998 | Department of Earth Science, University of Pisa                     | Research contract for the stratigraphic study of the Monte Foi1 well and for the improvement of the geological-structural knowledge of the Apennines for the purpose of exploration for hydrocarbon research within the framework of the Agreement between the Department of Earth Science of Pisa University and Enterprise Oil Expl. Ltd. Resolution of the Council of the Department of Earth Science of Pisa University N ° 10 of 29/01/1998   |
| 26/05/2003 | 26/05/2004 | Institute for the Coastal Marine Environment (IAMC), Naples (Italy) | CNR Research Fellow at the Institute for the Coastal Marine Environment (IAMC) -CNR of Naples, to carry out Studies of Integrated Stratigraphy of marine sediments of the Quaternary and Neogene. Prot. IAMC-CNR N ° 145/03 of 20/05/03 (Operational Program of the "Marine Environment" Plan Cluster 10 "Geomorphological and sedimentological study in selected areas of the continental shelf of Southern Italy") on the topic "Micropaleontological research on sediments of the Quaternary and Neogene. High resolution integrated biostratigraphy and stratigraphy " |
| 24/06/2004 | 08/03/05   | Institute for the Coastal Marine Environment (IAMC), Naples (Italy) | CNR Research Fellow at the Institute for the Coastal Marine Environment (IAMC) -CNR of Naples, to carry out studies on Stratigraphy of preset day and recent marine sediments in coastal areas as part of the GARG Project - Geological cartography of the emerged and submerged areas of the Campania Region. Prot. IAMC-CNR N ° 247/04 of 24/06/2004;  |
| 9/03/2007  | 06/2007    | Institute for the Coastal Marine Environment (IAMC), Naples (Italy) | Research contact at the University of Molise - Department of Sciences and Technologies for the Environment and the Territory (S.T.AT.) - S.T.A.T. of 12/07/2006, as part of the CARG Campobasso Project financed by the Molise Region entitled "creation and computerization of sheet no. 405 Campobasso" for biostratigraphic analysis and sampling of carbonate and terrigenous sequences of the Mesozoic and Tertiary sectors both in margin facies of carbonate platform and basin and geological survey on a  |

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| 09/03/05   | 10/07/06     | Institute for the Coastal Marine Environment (IAMC), Naples (Italy)  | scale of 1: 10,000 of 20.3 sq km (type of hill / mountain areas).   |
| 11/07/06   | 01/05/07     | Institute for the Coastal Marine Environment (IAMC), Naples (Italy)  | Researcher III level with fixed-term employment contract (TD) - recruitment by direct call pursuant to art. 15 - at the Institute for the Coastal Marine Environment (IAMC) -CNR of Naples. Prot. IAMC-CNR N° 109/05 of 08/03/2005. Letter of Recruitment Prot. IAMC-CNR N° 107/05. Scientific activity "Sedimentological and paleoecological biostratigraphic study of marine cores".  |
| 02/05/07   | still active | Institute for the Coastal Marine Environment (IAMC), Naples (Italy) [since 2018, Institute of Marine Sciences (ISMAR) of the National Research Council]. | Researcher III level with fixed-term employment contract (TD) - recruitment by direct call pursuant to art. 36 Law 70/75, TREU Package - at the Institute for the Coastal Marine Environment (IAMC) -CNR of Naples. Prot. IAMC-CNR N° 0000823 of 11/07/2006 and Prot. IAMC-CNR N° 0000823 of 11/07/2006. Scientific activity "Sedimentary geology, with particular reference to problems relating to cyclical and non-cyclical climatic variations.                             |
| 2011       | 2013         | Institute for the Coastal Marine Environment (IAMC), Naples (Italy)  | Researcher III level with permanent employment contract, with reference to competition no. 310.2.122 / M for the "Earth Sciences" Scientific Area - Provision of the President of the CNR Prot. N. 0002978 of 24/04 // 2007, at the Institute for the Coastal Marine Environment (IAMC) - CNR of Naples [now the Institute of Marine Sciences (ISMAR) of the National Research Council]. Prot. AMMCNT-CNR N° 0034728 of 27/04/2007, and Prot. AMMCNT, N° 0047325 of 08/06/2007. |
| 24/12/2013 | 24/12/2022   | Institute for the Coastal Marine Environment (IAMC), Naples (Italy)  | Chief scientist for the IAMC-CNR of Module TA.P04.028.002 - Study of paleoclimatic and paleoceanographic events for the understanding of present and future marine biogeochemical systems.  |
|            |              |  | Abilitazione Scientifica Nazionale per la Seconda Fascia MIUR-Bando 2012 (DD n. 222/2012), 24 Dicembre 2013, Settore Concorsuale 04/A2 GEOLOGIA STRUTTURALE, GEOLOGIA STRATIGRAFICA,  |

|            |              |   | SEDIMENTOLOGIA  | E |
|------------|--------------|---|---|---|
|            |              |   | PALEONTOLOGIA   |   |
| 27/09/2017 | 18/02/2019   | Institute for the Coastal Marine Environment (IAMC), Naples (Italy) | Member of the Gruppo Istruttorio Navi (GIN) of the National Research Council (CNR). Provision of the Director General of the CNR prot. n. 0061475 of 27 September 2017  |   |
| 08/11/2017 | 18/09/2018   | Institute for the Coastal Marine Environment (IAMC), Naples (Italy) | Member of the Support Group to the Management of the Institute for the Coastal Marine Environment (IAMC) of the National Research Council to optimize and control the functional organization of the transversal research support activities carried out at the Naples office and divided into two types: i) at headquarters (administration, plant / laboratory management, orders / purchases, missions, administrative procedures, security, etc.) and ii) at the Institute (secretariat, protocol, staff, support for offices, etc.). Provision for Appointment of the acting Director of the IAMC-CNR Dr. Ermanno Crisafi Prot. 12486 del 08/11/2017 |   |
| 22/05/2018 | 08/12/2020   | Institute for the Coastal Marine Environment (IAMC), Naples (Italy) | Member of the "Dynamics of paleoclimate" Working Group of the Department of Earth System Sciences and Technologies for the Environment (DSSTA) of the CNR (Provision Director DSSTA-CNR of 22/05/2018)  |   |
| 19/02/2019 | still active | Institute for Marine Science (ISMAR), Naples (Italy)                | Member of the Gruppo Istruttorio Navi (GIN) of the National Research Council (CNR). Provision of the Director General of the CNR_0012512/2019 del 19/02/2019  |   |
| 09/12/2020 | Still active | Institute for Marine Science (ISMAR), Naples (Italy)                | Member of the "Dynamics of paleoclimate" Working Group of the Department of Earth System Sciences and Technologies for the Environment (DSSTA) of the CNR (Provision Director DSSTA-CNR of 09/12/2020, Prot. 0079269/2020)  |   |
| 08/11/2020 | 08/11/2029   | Institute for Marine Science (ISMAR), Naples (Italy)                | Abilitazione Scientifica Nazionale per Seconda Fascia MIUR-Bando D.D. 2175/2018<br>SETTORE<br>CONCORSUALE 04/A2<br>GEOLOGIA STRUTTURALE,<br>GEOLOGIA STRATIGRAFICA,<br>SEDIMENTOLOGIA E<br>PALEONTOLOGIA  |   |
| 08/11/2020 | 08/11/2029   | Institute for Marine Science (ISMAR), Naples (Italy)                | Abilitazione Scientifica Nazionale per Prima Fascia MIUR-Bando D.D.   |   |

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|------------|--------------|---|---|---|
|            |              |   | 2175/2018<br>CONCORSUALE<br>GEOLOGIA<br>GEOLOGIA<br>SEDIMENTOLOGIA<br>PALEONTOLOGIA   | SETTORE<br>04/A2<br>STRUTTURALE,<br>STRATIGRAFICA,<br>E |
| 01/1/2012  | 31/12/2014   | Institute for the Coastal Marine Environment (IAMC), Naples (Italy) | Member of the Academic Board of the PhD School (cycle XXVII) in Sciences of the Sea, Earth and Climate of University "Parthenope" of Naples. Prot. CNR 3672 del 02/09/2020  |   |
| 01/01/2013 | 31/12/2015   | Institute for the Coastal Marine Environment (IAMC), Naples (Italy) | Member of the Academic Board of the PhD School (cycle XXVIII) in Sciences of the Sea, Earth and Climate of University "Parthenope" of Naples. Prot. CNR 3672 del 02/09/2020   |   |
| 01/11/2015 | 31/10/2018   | Institute for the Coastal Marine Environment (IAMC), Naples (Italy) | Member of the Academic Board of the PhD School (cycle XXXI) in Phenomena and Environmental Risks of University "Parthenope" of Naples. Prot. CNR 3672 del 02/09/2020.   |   |
| 01/11/2016 | 31/10/2019   | Institute for the Coastal Marine Environment (IAMC), Naples (Italy) | Member of the Academic Board of the PhD School (cycle XXXII) in Phenomena and Environmental Risks of University "Parthenope" of Naples. This PhD School is an interdepartmental doctorate between the Department of Science and Technology and the Department of Engineering. Prot. CNR 3672 del 02/09/2020.  |   |
| 01/11/2017 | still active | Institute for the Coastal Marine Environment (IAMC), Naples (Italy) | Member of the Academic Board of the PhD School (cycle XXXIII) in Phenomena and Environmental Risks of University "Parthenope" of Naples. This PhD School is an interdepartmental doctorate between the Department of Science and Technology and the Department of Engineering. Prot. CNR 3672 del 02/09/2020. |   |
| 01/11/2018 | still active | Institute for the Coastal Marine Environment (IAMC), Naples (Italy) | Member of the Academic Board of the PhD School (cycle XXXIV) in Phenomena and Environmental Risks of University "Parthenope" of Naples. This PhD School is an interdepartmental doctorate between the Department of Science and Technology and the Department of Engineering. Prot. CNR 3672 del 02/09/2020.  |   |
| 01/11/2019 | still active | Institute for Marine Science (ISMAR), Naples (Italy)                | Member of the Academic Board of the PhD School (cycle XXXV) in Phenomena and Environmental Risks  |   |

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|            |            |   | of University “Parthenope” of Naples. This PhD School is an interdepartmental doctorate between the Department of Science and Technology and the Department of Engineering. Prot. CNR 3672 del 02/09/2020.  |
| 21/10/2003 | 31/10/2003 | Institute for the Coastal Marine Environment (IAMC), Naples (Italy) | Participation in Oceanographic cruise for the Campania Region Carg Project, from 21 to 31 October 2003, N/O: Urania of CNR in the Gulfs of Salerno and Policastro (South Tyrrhenian Sea) for high-resolution marine geological cartography. Data acquisition (sampling and geophysics).   |
| 14/09/2010 | 19/09/2010 | Institute for the Coastal Marine Environment (IAMC), Naples (Italy) | Participation in the Oceanographic cruise of the ARCOSE (Age and Recurrence of Campania Offshore Slide Events) project, from 14 to 19 September 2010, N / O: Urania of CNR in the Sardinia Channel (Tyrrhenian Sea). Data acquisition Data acquisition (sampling and geophysics).   |
| 19/06/2012 | 21/06/2012 | Institute for the Coastal Marine Environment (IAMC), Naples (Italy) | Participation in the Oceanographic cruise I-AMICA2012 from 19/06/2012 to 21/06/2012, N / O: Astrea of ISPRA at the mouth of the Volturno River in the Gulf of Gaeta (central Tyrrhenian Sea) for water, box corer and gravity cores sampling.   |
| 29/01/2013 | 11/02/2013 | Institute for the Coastal Marine Environment (IAMC), Naples (Italy) | Participation in Oceanographic cruise I-AMICA 2013 from 29/01/2013 to 11/02/2013, N / O Urania of CNR in the Gulf of Gaeta (central Tyrrhenian Sea) for the sampling of sediments with gravity cores, water sampling, geophysics.   |
| 12/09/2013 | 19/09/2013 | Institute for the Coastal Marine Environment (IAMC), Naples (Italy) | Chief Scientist of Oceanographic cruise NEXTDATA2013 from 12 to 19/09/2013 N / O: Urania of CNR. Data acquisition (coring of marine sediments and water samples) at Channel of Sicily, Gulf of Taranto, Malta, Ionian Sea. Prot. IAMC-CNR N° 0004302 del 17/07/2012. Technical Report. Core description collected during Oceanographic Survey NextData2013 (12 – 19 September 2013). CNR SOLAR identification code:4517TR2014 |
| 09/07/2014 | 21/07/2014 | Institute for the Coastal Marine Environment (IAMC), Naples (Italy) | Chief Scientist of Oceanographic cruise NEXTDATA2014 from 09/07/2014 to 21/07/2014 N / O:   |

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|            |            |   | Urania of CNR. Data acquisition (coring of marine sediments and water samples) at Gulf of Taranto and the Adriatic Sea. Final Report of the Oceanographic Survey NextData2014: Paleoclimatic Data from Marine Sediments (09/07/2014 al 21/07/2014). CNR SOLAR identification code: 6429BC2015;   |
| 11/06/2016 | 29/06/2016 | Institute for the Coastal Marine Environment (IAMC), Naples (Italy) | Chief Scientist of Oceanographic cruise NEXTDATA2016 from 11/06/2016 to 29/06/2016 N/O: Minerva Uno of CNR. Data acquisition (coring of marine sediments, water samples and calcareous plankton fished) at Ionian Sea, Strait of Sicily, Tyrrhenian Sea and Ligurian Sea.  |
| 29/11/2017 | 06/12/2017 | Institute for the Coastal Marine Environment (IAMC), Naples (Italy) | Co-Chief Scientist of COSMEI Oceanographic cruise (Oceanographic Magnetic Magnetic Seismic Campaign Ischia) N/O: Minerva Uno of CNR from 29/11/2017 to 06/12/2017 at Ischia Island (Tyrrhenian Sea). Technical Report, Solar-CNR, 2018. V. Di Fiore, F. Lirer, F. Budillon, N. Pelosi, M. Punzo, G. Zeni, M. Iavarone, P. Scotto di Vettimo, C. Barbalucca, Campagna Oceanografica Sismica, Magnetica ed Elettrica - Ischia (COSMEI) |

### IIIB – Other Appointments

| Start      | End          | Institution  | Position  |
|------------|--------------|--|---|
| 2012       | 2020         | Institute for Marine Science (ISMAR), Naples (Italy) | Member of the Editorial Board of (AMQ) Alpine and Mediterranean Quaternary journal <a href="http://amq.aiqua.it/it/alpine-and-mediterranean-quaternary-journal">http://amq.aiqua.it/it/alpine-and-mediterranean-quaternary-journal</a> . Indexed journal by Scopus. ISSN 2279-7327 - Print version; ISSN 2279-7335 - Online version |
| 2016       | Still active | Institute for Marine Science (ISMAR), Naples (Italy) | Member of the Editorial Board of AIMS GEOSCIENCES <a href="http://www.aimspress.com/journal/geosciences">http://www.aimspress.com/journal/geosciences</a> . Open Access journal. ISSN (Online):2471-2132. Prot. IAMC-CNR N° 0012033 del 07/11/2016  |
| 2019       | Still active | Institute for Marine Science (ISMAR), Naples (Italy) | Member of the Editorial Board of Geosciences <a href="https://www.mdpi.com/journal/geosciences/editors">https://www.mdpi.com/journal/geosciences/editors</a> . Indexed journal by Scopus. Open Access journal. ISSN (Online):2471-2132  |
| 15/10/2020 | Still active | Institute for Marine Science (ISMAR), Naples (Italy) | Associate Editor for Alpine and Mediterranean Quaternary (AMQ) journal <a href="http://amq.aiqua.it/index.php">http://amq.aiqua.it/index.php</a> . Indexed journal by Scopus. ISSN 2279-7327 - Print version; ISSN  |

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|      |      |   | 2279-7335 - Online version. (Prot. CNR 4754 del 02/11/2020);   |
| 2013 | 2013 | Institute for the Coastal Marine Environment (IAMC), Naples (Italy) | Project Reviewer for: Swiss National Science Foundation (SNSF) - Div. Mathematics, Physical and Engineering Sciences. Project titled: Benthic foraminiferal biomonitoring: a low cost tool to evaluate anthropogenic impact: a case study in the Gulf of Gabes (Tunisia). 01/11/2013 – 200021_149589;  |
| 2013 | 2013 | Institute for the Coastal Marine Environment (IAMC), Naples (Italy) | Project Reviewer for: Austrian Science Fundation. Project titled: Impact of Mediterranean outflow water on the Pliocene north Atlantic: Site U1389/IODP Expedition 339 - stipendien.at, Dienstag, 14. Mai 2013 - 7:26 - 1/1;   |
| 2013 | 2013 | Institute for the Coastal Marine Environment (IAMC), Naples (Italy) | Project Reviewer for: French National Research Agency (ANR) – Evaluation Committee of Blanc SIMI 6 2013. Project titled: Sills and Corridors in the MEDiterranean: upheavals towards its modernity (SICOMED) - Edition 2013 - Projet_44430 – e-mail del 27/03/2013 di Patrick Monfray e Tamara Salameh-Moukarzel, Scientific coordinator and project manager SIM6, ANR;  |
| 2014 | 2014 | Institute for the Coastal Marine Environment (IAMC), Naples (Italy) | Project Reviewer for: Czech Science Foundation - Department of physical sciences. Project titled: Magnetostratigraphy and paleoenvironmental signals at the Jurassic/Cretaceous boundary: an integrated stratigraphy of selected key sections - Project Proposal, panel 210, Registration No.: 14-25562S;  |
| 2014 | 2014 | Institute for the Coastal Marine Environment (IAMC), Naples (Italy) | Project Reviewer for: Netherland Science Fundation - NWO division Earth and Life Sciences Innovational Research Incentives Scheme Veni 2014 ALW. Project titled: On the origin of sapropel formation: reconstructing the Mediterranean Hydrological Cycle and freshwater provenance. Aanvraagnummer/application number: 016.151.010;   |
| 2014 | 2014 | Institute for the Coastal Marine Environment (IAMC), Naples (Italy) | Project Reviewer for: MINISTERO DELL'ISTRUZIONE, DELL'UNIVERSITÀ E DELLA RICERCA (MIUR) - Programma SIR 2014 (Scientific Independence of young Researchers) - Decreto del 23 gennaio 2014 prot. n. 197. Proposal number RBSI14Z6KC – Project titled: The past as the key to the present: Oligocene high-resolution stratigraphy by means of larger foraminiferal biometry an its paleoenvironmental significance. Prot. CNR 3673 del 02/09/2020. |
| 2014 | 2014 | Institute for the Coastal Marine Environment (IAMC), Naples (Italy) | Project Reviewer for: MINISTERO DELL'ISTRUZIONE, DELL'UNIVERSITÀ E DELLA RICERCA (MIUR) - Programma SIR 2014 (Scientific Independence of young Researchers) - Decreto del 23 gennaio 2014 prot. n. 197. Proposal number RBSI14X6II - Project titled: Quantifying the organic carbon mineralization potential of carbonate sedimentary systems: a case study from the Triassic of the Dolomites. Prot. CNR 3673 del 02/09/2020                    |
| 2014 | 2014 | Institute for the Coastal Marine Environment                        | Project Reviewer for: MINISTERO DELL'ISTRUZIONE, DELL'UNIVERSITÀ E DELLA RICERCA (MIUR) - Programma SIR 2014 (Scientific Independence of young Researchers) - Decreto del 23 gennaio 2014 prot. n. 197.  |

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|      |      | (IAMC), Naples (Italy)  | Proposal number RBSI14ZQQO - Project titled: Biodiversity - climate feedbacks during environmental crises in semi-enclosed basins: lessons from the late Miocene (Messinian) palaeo-Mediterranean. Prot. CNR 3673 del 02/09/2020  |
| 2014 | 2014 | Institute for the Coastal Marine Environment (IAMC), Naples (Italy) | Project Reviewer and Rapporteur for: MINISTERO DELL'ISTRUZIONE, DELL'UNIVERSITÀ E DELLA RICERCA (MIUR) - Programma SIR 2014 (Scientific Independence of young Researchers) - Decreto del 23 gennaio 2014 prot. n. 197. Proposal number RBSI14UU81 - Project titled: Tracing calcareous nannoplankton response to ocean acidification under extreme climatic and ecological conditions: comparing culture experiment and geological data. Prot. CNR 3673 del 02/09/2020  |
| 2014 | 2014 | Institute for the Coastal Marine Environment (IAMC), Naples (Italy) | Project Reviewer and Rapporteur for: MINISTERO DELL'ISTRUZIONE, DELL'UNIVERSITÀ E DELLA RICERCA (MIUR) - Programma SIR 2014 (Scientific Independence of young Researchers) - Decreto del 23 gennaio 2014 prot. n. 197. Proposal number RBSI145U0Y - Project titled: The influence of volcanic activity on the marine carbonate production: the Miocene of Central Mediterranean case history. Prot. CNR 3673 del 02/09/2020   |
| 2016 | 2016 | Institute for the Coastal Marine Environment (IAMC), Naples (Italy) | Project Reviewer for: Programma Nazionale di Ricerca in Antartide (PNRA). Project titled: Segnali Geochimici in Carbonati Biogenici Antartici per Ricostruzioni Paleoceanografiche (GRACEFUL) - PNRA D.D. 651 del 05/04/2016 PNRA16_00069 - A3;   |
| 2009 | 2009 | Institute for the Coastal Marine Environment (IAMC), Naples (Italy) | Invited participant to Workshop of ESF/LESC – European Science Foundation. Strategic workshop on “Between Life and Earth Sciences - Palaeontology in a European Perspective. Heraklion, Crete, 22-25 October 2009   |
| 2010 | 2010 | Institute for the Coastal Marine Environment (IAMC), Naples (Italy) | Invited participant to Workshop of ESF – European Science Foundation - Magellan Workshop Series supported by ECORD-ESF-EDROME-INSU-CNRS Action Marges, 19th-22nd October 2010 in l'Observatoire Océanologique de Banyuls-sur-mer, FRANCE- The “GOLD” IODP drilling in the Western Mediterranean Sea.<br><a href="https://www.yumpu.com/en/document/read/17621388/esf-institut-carnot-edrome-insu-actions-marges-science-ifremer">https://www.yumpu.com/en/document/read/17621388/esf-institut-carnot-edrome-insu-actions-marges-science-ifremer</a> |
| 2010 | 2010 | Institute for the Coastal Marine Environment (IAMC), Naples (Italy) | Invited participant to Workshop of ESF – European Science Foundation - MagellanPlus DREAM-II workshop held in Paris on January 20-23 2014 - Deep-Sea Record of Mediterranean Messinian Events, Université Pierre et Marie Curie, Paris. ECORD newsletter22 (2014) <a href="https://www.ecord.org/resources/ecord-newsletter/">https://www.ecord.org/resources/ecord-newsletter/</a>   |
| 2016 | 2016 | Institute for the Coastal Marine Environment (IAMC), Naples (Italy) | Invited participant to Workshop of European Cooperation in Science and Technology (COST) and Agence Nationale de la Recherche (ARN) COST - ANR MEDSALT SYMPOSIUM, University of Palermo, 24-26 October 2016.  |

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| 4/06/2002  | 6/06/2002  | Institute for the Coastal Marine Environment (IAMC), Naples (Italy) | Co-organizer (Coccioni R., Galeotti S., <b>Lirer F.</b> ) 1° Meeting of Environmental micropaleontology for young Italian researchers. “La micropaleontologia applicata alle problematiche ambientali e paleoambientali”. Urbino University   |
| 10/06/2003 | 12/06/2003 | Institute for the Coastal Marine Environment (IAMC), Naples (Italy) | Co-organizer (Coccioni R., Galeotti S., <b>Lirer F.</b> ) 2° Meeting of Environmental micropaleontology “Past and Recent Perturbations in the Ocean-Climate System: Ecosystem Alterations and Response of Microorganisms. Urbino University   |
| 25/09/2003 | 2/10/2003  | Institute for the Coastal Marine Environment (IAMC), Naples (Italy) | Co-Scientific and Co- Organizer Secretary ( <b>Lirer F.</b> , Sprovieri M.) of the Summer School “Paleoceanography: Theory and Field Evidence” at Institute for the Coastal Marine Environment (IAMC)-CNR, Naples (Italy). Director of School Prof. B. D’Argenio.   |
| 8/06/2004  | 10/06/2004 | Institute for the Coastal Marine Environment (IAMC), Naples (Italy) | Co-organizer (Coccioni R., Marsili A., <b>Lirer F.</b> ) 3° Meeting di Micropaleontologia Ambientale “Microrganismi come indicatori ambientali e paleoambientali”. Urbino University  |
| 2/09/2009  | 6/09/2009  | Institute for the Coastal Marine Environment (IAMC), Naples (Italy) | Scientific Secretary and Co-Organizer (B. D’argenio, Iaccarino S., <b>Lirer F.</b> ) 13° Congress of Regional Committee on Mediterranean Neogene Stratigraphy (RCMNS) - Castel Dell’Ovo Napoli (Italia) - Earth System Evolution and the Mediterranean area from 23 Ma to the present.  |
| 28/10/2011 | 29/10/2011 | Institute for the Coastal Marine Environment (IAMC), Naples (Italy) | Co-Organizzatore (Pappone G., Aucelli P.C., <b>Lirer F.</b> , Lambiase R.) del Convegno Ordine dei Geologi Regione Campania: Approcci multidisciplinari per lo studio dei processi e la mitigazione dei rischi dei sistemi marino-costieri. Salerno   |
| 27/09/2012 | 20/09/2012 | Institute for the Coastal Marine Environment (IAMC), Naples (Italy) | Member of the Scientific Committee of the RCMNS Interim Colloquium 2012. Paratethys-Mediterranean Interactions. Environmental Crises during the Neogene. Bucharest 27-30 September 2012. Abstract Volume Ed.: Marius Stoica, Mihaela C. Melinte-Dobrinescu & Dan Palcu  |
| 19/06/2013 | 21/06/2013 | Institute for the Coastal Marine Environment (IAMC), Naples (Italy) | Co-Organizer ( <b>Lirer F.</b> , L. Ferraro, V. Di Fiore, G. Pappone, E. Marsella, B. D’Argenio) del Congresso dell’Associazione Italiana per lo Studio del Quaternario (AIQUA) 2013. L’Ambiente Marino Costiero del Mediterraneo oggi e nel recente passato geologico: conoscere per comprendere. University Parthenope of Naples  |
| 20/05/2016 | 24/05/2016 | Institute for the Coastal Marine Environment (IAMC), Naples (Italy) | Member of the Scientific Committee of the Interim Colloquium 2016 LAKE - BASIN - EVOLUTION Stratigraphy, Geodynamics, Climate, and Diversity of Past and Recent Lacustrine Systems, 20-24 May 2016, Zagreb / Croatia. University of Zagreb. Mandić, O., Pavelić, D., Kovačić, M., Sant, K., Andrić, N., Hrvatović, H. (eds.) 2016. Program & Abstracts. Lake-Basin-Evolution, RCMNS Interim Colloquium 2016 & Croatian Geological Society. Limnogeology Workshop, 20-24 May 2016, |

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|            |            |   | Zagreb, Croatia. Hrvatsko geološko društvo / Croatian Geological Society. 62 pp. ISBN 978-953-95130-9-0   |
| 16/06/2016 | 17/06/2016 | Institute for the Coastal Marine Environment (IAMC), Naples (Italy) | Co-Organizer (Negri A., Capotondi L., <b>Lirer F.</b> ) of the Congresso AIQUA (Associazione Italiana per lo Studio del Quaternario) Geocronologia e Cronostratigrafia del Quaternario, Luci e Ombre, Università di Bologna, 16-17 giugno 2016, Italy.<br><a href="http://www.aiqua.it/index.php/convegni-e-workshop/23-geocronologia-e-cronostratigrafia-del-quaternario">http://www.aiqua.it/index.php/convegni-e-workshop/23-geocronologia-e-cronostratigrafia-del-quaternario</a>   |
| 10/09/2019 | 13/09/2019 | Institute for the Coastal Marine Environment (IAMC), Naples (Italy) | Member of the Organizing Committee of the 34 <sup>th</sup> International Association of Sedimentology (IAS) Sedimentology to face societal challenges on risk, resources and record of the past- Meeting Rome 10-13 September 2019 ( <a href="http://iasroma2019.org/">http://iasroma2019.org/</a> )  |
| 17/06/2019 | 18/06/2019 | Institute of Marine Science (ISMAR) –CNR, Naples (Italy)            | Co-Organizer (A. Provenzale, P. Montagna, L. Capotondi, B. Giaccio, <b>F. Lirer</b> , G. Monegato, E. Palazzi, C. Pasquero, C. Ravazzi, B. Stenni, M. Brunetti, P. Braico, R. Bellucci) del WORKSHOP – Consiglio Nazionale delle Ricerche. La dinamica del clima nell'ultimo ciclo glaciale-interglaciale - Per una visione sinottica dei principali eventi nei mari, lungo le aree costiere e sui territori montani e pianiziali dell'area Mediterranea e Alpina. Area di Ricerca del CNR (Via Gobetti 101, Bologna). Volume contributi Workshop del CNR 17-18 Giugno 2019, Bologna. SOLAR CNR code: 9497OT2019<br><a href="http://eprints.bice.rm.cnr.it/id/eprint/19020">http://eprints.bice.rm.cnr.it/id/eprint/19020</a> . |
| 13/07/2023 | 20/07/2023 | Institute of Marine Science (ISMAR) – CNR, Naples (Italy)           | Co-Vice-Chair ( <b>Fabrizio Lirer</b> , Laura Sadori) of the next XXI INQUA Congress: a Mediterranean perspective on Quaternary Sciences. Rome 13-20 July 2023. Chairperson Francesco Latino Chiocci (Roma La Sapienza University) del XXI INQUA Congress ( <a href="https://www.inqua.org/meetings">https://www.inqua.org/meetings</a> ).  |
| 2011       | 2011       | Institute for the Coastal Marine Environment (IAMC), Naples (Italy) | Reviewer Activities year 2011 for the evaluation of the requests for access to the oceanographic infrastructures of the CNR for oceanographic cruise - Prot. AMMCNT-CNR N ° 0080249 of 04/11/2014   |
| 2012       | 2013       | Institute for the Coastal Marine Environment (IAMC), Naples (Italy) | Reviewer Activities year 2012 and 2013 for the evaluation of the requests for access to the oceanographic infrastructures of the CNR for oceanographic cruise - Prot. AMMCNT-CNR N° 0077487 del 24/11/2014.   |
| 2016       | 2016       | Institute for the Coastal Marine Environment (IAMC), Naples (Italy) | Reviewer of PhD thesis for University of Palermo - PhD in Earth and Sea Sciences, XXIX Cycle in co-supervision with the doctoral school of the Muséum Nationale d'histoire Naturelle (MNHN) in Paris. PhD thesis titled "Paleoclimatic and paleoceanographic reconstruction of Pleistocene-Holocene through the study of planktonic foraminifera of two sedimentary cores collected in the North Atlantic Ocean, southwest of the Azores islands" by Dr. Alessandro Bonfardeci. Legal person of reference Prof. Alessandro Aiuppa, coordinator of the PhD School in Earth and Sea Sciences of the University of Palermo (e-mail dated 27/12/2016).  |

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| 2004 | 2004 | Institute for the Coastal Marine Environment (IAMC), Naples (Italy) | Guest Editor: Proceedings of the First Italian Meeting on Environmental Micropaleontology. Grzybowski Foundation Special Publication, n°9. Coccioni R., Galeotti S. & <b>Lirer F.</b> (Eds.) ISBN: 83-912385-5-5 ( <a href="http://gf.tmsoc.org/publications.html">http://gf.tmsoc.org/publications.html</a> ) (2004). 108 pages  |
| 2009 | 2009 | Institute for the Coastal Marine Environment (IAMC), Naples (Italy) | Guest Editor: Abstract book (Editorial board). Earth System Evolution and the Mediterranean area from 23 MA to the present. Acta Naturalia de "L'Ateneo Parmense", vol. 45.13th Congress Regional Committee on Mediterranean Neogene Stratigraphy (RCMNS), 2nd -6th September 2009 Naples, Italy, International Standard Serial Number: ISSN 0004-654X. Iaccarino S., Vallefucio M., Tamburrino S., D'Argenio B., <b>Lirer F.</b> , (2009). 448 pages |
| 2011 | 2011 | Institute for the Coastal Marine Environment (IAMC), Naples (Italy) | Guest Editor: Geologica Carpathica volume 62, n°1 (2011)- Regional Committee on Mediterranean Neogene Stratigraphy (RCMNS). M. Kovac, J. Minar, <b>F. Lirer.</b> <a href="http://www.geologicacarthica.com/">http://www.geologicacarthica.com/</a> . Online ISSN 1336-8052; Print ISSN 1335-0552. Nine scientific articles;   |
| 2012 | 2012 | Institute for the Coastal Marine Environment (IAMC), Naples (Italy) | Guest Editor: Rendiconti dei Lincei, Scienze Fisiche e Naturali, volume 23, n°1 (2012): Land-Sea Interaction: the case of Sele River (southern Italy). B. D'Argenio, <b>F. Lirer</b> , G. Pappone. <a href="https://link.springer.com/journal/12210/volumes-and-issues/23-1">https://link.springer.com/journal/12210/volumes-and-issues/23-1</a> ; ISSN: 2037-4631 (Print) 1720-0776 (Online). Nine scientific articles and the Foreword;             |
| 2013 | 2013 | Institute for the Coastal Marine Environment (IAMC), Naples (Italy) | Guest Editor: Miscellanea INGV, n°19. ISNN2039-6651. Anzalone E., <b>Lirer F.</b> , Ferraro L., Di Fiore V., Pappone G., Marsella E., D'Argenio B. Riassunti Congresso AIQUA 2013. L'ambiente marino costiero del Mediterraneo oggi e nel recente passato geologico, conoscere per comprendere.   |

#### Part IV – Teaching experience

| Year      | Institution                                     | Lecture/Course  |
|-----------|---|---|
| 1996-1997 | Department of Earth Science, University of Pisa | Contract for professional teaching support service (24/04/1997-25/06/1997) - Teaching assignment support for Geology Laboratory 1 course (holder of the course Prof. Paolo Scandone) of the Degree Course in Geological Sciences - University of Pisa. Legal person of reference is the Dean of the Faculty of Mathematical, Physical and Natural Sciences of the University of Pisa, Prof. Marco Pasquali. There are no protocol numbers, since as per the contract the following wording was reported: this deed will be registered only in case of use pursuant to Articles 1-letter b) and 10 of the second part of the "Tariff" attached to the T.U. approved with D.P.R. 26 April 1986 n. 131 |
| 1997-1998 | Department of Earth Science, University of Pisa | Contract for professional teaching support service (24/02/1998-29/05/1998) - Teaching assignment support for Geology Laboratory 1 course (holder of the course Prof. Paolo Scandone) of the Degree Course in Geological Sciences - University of  |

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|                     |   | Pisa. Legal person of reference is the Dean of the Faculty of Mathematical, Physical and Natural Sciences of the University of Pisa, Prof. Marco Pasquali. There are no protocol numbers, since as per the contract the following wording was reported: this deed will be registered only in case of use pursuant to Articles 1-letter b) and 10 of the second part of the "Tariff" attached to the T.U. approved with D.P.R. 26 April 1986 n. 131       |
| 14-18/02/2005       | Institute for the Coastal Marine Environment (IAMC), Naples (Italy) | Professor at 4 <sup>th</sup> International School on Planktonic Foraminifera, (Oligocene to Middle Miocene Planktonic Foraminifera) at University of Perugia. Professors Iaccarino S., Premoli Silva I., Foresi L.M., <b>Lirer F.</b> , Petrizzo M.R. Organizer of the School on Planktonic Foraminifera, Prof. Roberto Rettori, University of Perugia.  |
| 2006-2007           | Institute for the Coastal Marine Environment (IAMC), Naples (Italy) | Teaching assignment by the University of Suor Orsola Benincasa of Naples, of 50 hours for Special Enabling Courses ex. Law 143/2004 for professors of Secondary Schools I and II level. Discipline of Mineralogy and Geology. Prot. N° 836 del 17/02/2006  |
| 2006-2007           | Institute for the Coastal Marine Environment (IAMC), Naples (Italy) | Formal teaching assignment (Teaching contract) for the Geological Survey Course, 52 hours of teaching, at the Department of Sciences and Technologies for the Environment and the Territory - S.T.A.T. (University of Molise) for the Degree Course in Environmental and Nature Sciences. Prot. SPP/34668-VII/4 del 24/11/2006   |
| 19-23/02/2007       | Institute for the Coastal Marine Environment (IAMC), Naples (Italy) | Professor at 6 <sup>th</sup> International School on Planktonic Foraminifera, Neogene Planktonic Foraminifera at University of Perugia. Professors Iaccarino S., Premoli Silva I., Foresi L.M., <b>Lirer F.</b> , Turco E. Organizer of the School on Planktonic Foraminifera, Prof. Roberto Rettori and Dr. Alessio Checconi, University of Perugia.  |
| 2013                | Institute for the Coastal Marine Environment (IAMC), Naples (Italy) | Teaching for the PhD School in Sciences of the Sea, Earth and Climate (Cycle XXVIII) of the Parthenope University of Naples. Topics: Turnover in planktonic foraminifera associations during the last 23 My in the Mediterranean; Planktonic foraminifera as bio-indicators for monitoring climate changes recorded in the last 2000 years in the south-eastern Tyrrhenian Sea; Geological and astronomical rhythms for measuring the time of the Earth. |
| 2005/2006-2008/2009 | Institute for the Coastal Marine Environment (IAMC), Naples (Italy) | Tutor: Prof. Bruno D'Argenio & Prof.ssa Vittoria Ferreri (Naples Federico II of University); Co-Tutor: Dr. <b>Fabrizio Lirer</b> & Dr.ssa Luciana Ferraro (IAMC-CNR); PhD thesis titled "Planktonic foraminiferal events and climatic variability in the sediment of Southern Tyrrhenian Sea during the last 80 kyr" Scuola di Dottorato in Scienze della Terra, Università Federico II di Napoli - Ciclo XXI (2005/2006-2008/2009). PhD                 |

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| 2013/2014-2016/2017 | Institute for the Coastal Marine Environment (IAMC), Naples (Italy) | student: Mattia Vallefucio<br>( <a href="http://www.fedoa.unina.it/3438/">http://www.fedoa.unina.it/3438/</a> )  |
| 2014-2015           | Institute for the Coastal Marine Environment (IAMC), Naples (Italy) | Tutor: Prof. Antonio Caruso (Palermo University); Co-Tutor: Dr. <b>Fabrizio Lirer</b> (IAMC-CNR); Tesi di Laura Magistrale dal Titolo “Studio paleoclimatico del tardo Olocene in una carota dell’Adriatico meridionale tramite foraminiferi planctonici. Corso di Laura in Scienze e tecnologie geologiche. Dipartimento di scienza della terra e del mare. Università di Palermo. Anno Accademico 2014-2015. Student: Irene Giliberti  |
| 2014/2015-2017/2018 | Institute for the Coastal Marine Environment (IAMC), Naples (Italy) | Tutor: Prof. Gerardo Pappone (University Parthenope of Naples); Co-Tutor: Dr. <b>Fabrizio Lirer</b> (IAMC-CNR); PhD thesis titled “Climate oscillations in the Mediterranean over the last millennia using planktonic foraminifera”. Scuola di Dottorato in Fenomeni e Rischi Ambientali, Università degli Studi “Parthenope” di Napoli – Ciclo XXX (2014/2015-2017/2018). PhD student: Mariapaola Dentice. Prot. ISMAR CNR 3744 del 07/09/2020  |
| 2015-2016           | Institute for the Coastal Marine Environment (IAMC), Naples (Italy) | Tutor: Prof.ssa Bianca Russo (Università Federico II di Napoli); Co-Tutor: Dr. <b>Fabrizio Lirer</b> (IAMC-CNR); Tesi di Laurea Sperimentale in Micropaleontologia dal titolo “Ecobiostratigrafia a foraminiferi planctonici del tardo Pleistocene-Olocene della carota CR5 (Mar Tirreno)”. CORSO DI LAUREA IN SCIENZE GEOLOGICHE DIPARTIMENTO DI SCIENZE DELLA TERRA, DELL’AMBIENTE E DELLE RISORSE. UNIVERSITA’ FEDERICO II DI NAPOLI. Anno Accademico 2015-2016. Student: Francesco Napolitano. |
| 2015-2016           | Institute for the Coastal Marine Environment (IAMC), Naples (Italy) | Tutor: Prof.ssa Bianca Russo (Università Federico II di Napoli); Co-Tutor: Dr. <b>Fabrizio Lirer</b> (IAMC-CNR); Tesi di Laurea Sperimentale in Micropaleontologia dal titolo “Le associazioni a foraminiferi planctonici del tardo Pleistocene-Olocene della carota CR5 (Mar Tirreno)”. CORSO DI LAUREA IN SCIENZE GEOLOGICHE DIPARTIMENTO DI SCIENZE DELLA TERRA, DELL’AMBIENTE E DELLE RISORSE. UNIVERSITA’ FEDERICO II DI  |

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| 2015/2016-2018/2019 | Institute for the Coastal Marine Environment (IAMC), Naples (Italy) | NAPOLI. Anno Accademico 2015-2016. Student: Ernesto Gagliardi.  |
| 2020/2021           | Institute for Marine Science (ISMAR), Naples (Italy)                | Tutor: Dr. <b>Fabrizio Lirer</b> (IAMC-CNR); Co-Tutor: Prof. Antonio Caruso (Palermo University); PhD thesis titled “Paleoecological and paleoclimatic analyses of Mediterranean marine sediments over the last 40000 years based on planktonic foraminifera and geochemical data”. Scuola di Dottorato in Fenomeni e Rischi Ambientali, Università degli Studi “Parthenope” di Napoli – Ciclo XXXI (2015/2016-2018/2019). PhD student: Irene Giliberti. The PhD student retired after the first year.  |
| 2013-2018           | Institute for the Coastal Marine Environment (IAMC), Naples (Italy) | Tutor: Prof. Luca Maria Foresi (Siena Università); Co-Tutor: Dr. <b>Fabrizio Lirer</b> (ISMAR-CNR) & Prof. Antonio Caruso (Palermo University); Reconstruction of CO <sub>2</sub> oscillations through the study of marine fossil records during the Neogene in the Mediterranean Sea: Boron isotopes in planktonic foraminifera as a tracer for paleo-pH and pCO <sub>2</sub> . Dottorato di Ricerca in Scienze e Tecnologie Ambientali, Geologiche e Polari A.A. 2020/2021 – Ciclo XXXVI. PhD student: Monica Pernice   |
| 2016                | Institute for the Coastal Marine Environment (IAMC), Naples (Italy) | Tutor for Research Grant at IAMC-CNR of Giulia Margaritelli. Topic for the Research Grant was as follows: Analisi paleoecologica e paleoclimatica di sedimenti marini nell’area mediterranea degli ultimi 2000 anni basata sull’integrazione di dati quantitativi provenienti dalle associazioni a foraminiferi bentonici e a foraminiferi planctonici. Assegnista: Giulia Margaritelli. Prot. IAMC-CNR 0005862 del 29/07/2013. Questo protocollo certifica la responsabilità scientifica del sottoscritto per il vincitore del Bando IAMC-018-2013-NA per l’Assegno di Ricerca per il Progetto NEXTDATA. Fabrizio Lirer was the Principal Investigator of WP 1.5 (Paleoclimatic data from sedimentary cores on the continental platform) of NEXTDATA Project (PROT. IAMC-CNR N°0006841 del 20/11/2012) |
| 2018                | Institute for the Coastal Marine Environment (IAMC), Naples (Italy) | Member of the international evaluation commission of the Research Doctorate at the University of Salamanca (Spain). PhD thesis “Astrobiological constraints on margin to deep basin correlation across the Balearic promontory and the Valencia basin” by Diana Paola Ochoa Lozano. (Prot. Universidad Salamanca COD. 2016/230/165). Composition of the evaluation committee: President: Roger Urgeles Esclasand (CSIC Barcelona); Vocal: Fabrizio Lirer (CNR, Italy); Secretary Johanna Lofi (Université de Montpellier, France).  |
|                     |   | Member (alternate member) of the evaluation commission for the PhD in PHYSICS AND   |

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|           |   | ASTROPHYSICS - XXX cycle (PhD student: Sara RUBINETTI). Department of Physics of the University of Turin. Rector's Decree n. 1534 of 18 April 2018. 1. The commission was composed as follows: Costanza BONADIMAN - Dipartimento di Fisica e scienze della terra - Università di Ferrara; Claudio CASSARDO - Dipartimento di Fisica - Università degli Studi di Torino; Miroslav GACIC - Istituto Nazionale di Oceanografia e Geofisica Sperimentale (OGS) - Trieste. Membri supplenti: Giuseppe CIVITARESE - Istituto Nazionale di Oceanografia e Geofisica Sperimentale (OGS) - Trieste; Silvia FERRARESE - Dipartimento di Fisica - Università degli Studi di Torino; <b>Fabrizio LIRER</b> - Istituto per l'Ambiente Marino Costiero - Consiglio Nazionale delle Ricerche, Napoli. |
| 2011      | Institute for the Coastal Marine Environment (IAMC), Naples (Italy) | Formal IAMC-CNR assignment to collaborate in the preliminary activities of data collection and study for stratigraphic analysis in the Campania and Sicily detailed study areas of the VIGOR Project (CUP B72J10000060007). Prot. CNR-IAMC N ° 40/2011;  |
| 2012-2015 | Institute for the Coastal Marine Environment (IAMC), Naples (Italy) | Formal IAMC-CNR assignment to carry out technical-scientific and organizational support activities for the PONa3_00363 Infrastruttura AMICA (I-AMICA) project (Infrastruttura di Alta tecnologia per il Monitoraggio Integrato Climatico-Ambientale). Prot. IAMC-CNR N ° 0001013 of 12/02/2012;  |
| 2012-2015 | Institute for the Coastal Marine Environment (IAMC), Naples (Italy) | Formal IAMC-CNR assignment to carry out technical-scientific coordination and organizational support to the constellation PON01_Pon Research & Competitiveness PARFAMAR (Strengthening Research and Training Activities on the Marine Environment in Southern Italy) for the IAMC-CNR. Prot. IAMC-CNR N ° 0005313 of 13/09/2012;   |
| 2012-2018 | Institute for the Coastal Marine Environment (IAMC), Naples (Italy) | Formal IAMC-CNR Appointment as Principal Investigator for Work Package 1.5 "Paleoclimatic data from marine sediments" for the Strategic project of Interest - PNR 2011-2013 NEXTDATA - A national system for the collection, conservation, accessibility and dissemination of environmental and climatic data in areas mountain and marine. NEXTDATA project Chief Dr. Antonello Provenzale (IGG-CNR). PROT. IAMC-CNR N° 0006841 of 20/11/2012;  |
| 2012      | Institute for the Coastal Marine Environment (IAMC), Naples (Italy) | Formal IAMC-CNR Assignment to carry out scientific activity for task OR.1 of the project PON 01_02651 Integrated Management System for Coastal Erosion "SIGIEC". Prot. IAMC-CNR N° 0007759 of 20/12/2012;  |

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| 2013-2015 | Institute for the Coastal Marine Environment (IAMC), Naples (Italy) | Formal IAMC-CNR Assignment to carry out scientific activity for task OR.1, OR2, OR3, OR4, OR5, OR6, OR7 of the project PON 01_02651 Integrated Management System for Coastal Erosion "SIGIEC". Prot. IAMC-CNR N° 0006382 of 30/08/2013;  |
| 2013-2015 | Institute for the Coastal Marine Environment (IAMC), Naples (Italy) | Formal IAMC-CNR Assignment to carry out technical-scientific and organizational support activities for the PONa3_00363 Infrastruttura AMICA (I-AMICA) project (Infrastruttura di Alta tecnologia per il Monitoraggio Integrato Climatico-Ambientale), sub-activity OR 2.3 and OR 4.4. Prot. IAMC-CNR N° 0004390 of 12/06/2013; |
| 2013-2018 | Institute for the Coastal Marine Environment (IAMC), Naples (Italy) | Principal Investigator for the Agreement for Scientific Collaboration within the NextData project and the PON_03_ Infrastruttura AMICA (I-AMICA) project (Infrastruttura di Alta tecnologia per il Monitoraggio Integrato Climatico-Ambientale) between IAMC-CNR and INGV of Pisa. Prot. IAMC-CNR N° 0005747 of 24/07/2013.    |

## Part V - Society memberships, Awards and Honors

| Year                    | Title  |
|-------------------------|--|
| Since 2005              | Secretary of the Regional Committee on Mediterranean Neogene Stratigraphy (RCMNS). Prot. IAMC-CNR N° 0004857 del 27/06/2013  |
| Since 2006              | Secretary of the Italian Stratigraphy Commission (CIS) <a href="https://www.socgeol.it/273/commissione-italiana-di-stratigrafia.html">https://www.socgeol.it/273/commissione-italiana-di-stratigrafia.html</a>   |
| 2008-2011               | Member of the Italian Association of Sedimentary Geology (GeoSed)  |
| 09/2008 - 09/2011       | Councilor of the Italian Association of Sedimentary Geology (GeoSed). Prot. IAMC-CNR N° 0000217 del 18/01/2012;  |
| 29/12/2011 - 29/12/2012 | Member of the Scientific Legal Technical Committee of Procida Municipality to evaluate the initiatives to be taken for the protection and management of the coastal area and, in particular, for the emergency of the erosion of the beaches in defense of the coastal marine area from weather-marine erosion. Prot. IAMC-CNR N° 0005488 del 29/12/2011 |
| 12/06/2012 - 23/06/2016 | Delegate of the Italian Association for the Study of the Quaternary (AIQUA) of the Italian Federation of Earth Science (FIST). Prot. IAMC-CNR N° 0003503 del 13/06/2012  |
| Since 2012              | Member of the Italian Association for the Study of the Quaternary (AIQUA)  |
| Since 2013              | Voting member of the Subcommittee on Quaternary Stratigraphy (SQS) of the International Commission on Stratigraphy (ICS). <a href="http://quaternary.stratigraphy.org/">http://quaternary.stratigraphy.org/</a>  |
| 2015-2018               | Member of the Presidency Council of the Italian Association for the Study of the Quaternary (AIQUA)  |
| 28/05/2015 - 31/10/2018 | Member of the Commission for the coordination of Italian activities in International Ocean Discovery Program (IODP) (Prot. CNR del 28/05/2015 N° 0037715).   |

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| 2015-2019        | Member of the Scientific Technical Committee (CTS) of the Observatory of the Sea. ( <a href="http://www.osservatoriodelmare.it/">http://www.osservatoriodelmare.it/</a> ). Prot. CNR Amministrazione Centrale N°E0011126 del 17/02/2017  |
| 2004-2010        | MIUR - ANVUR – Valutatore (VQR), Settore GEV4. E-mail del 26/09/2012 di Filippo Giorgi Presidente GEV04  |
| 2011-2014        | MIUR - ANVUR – Valutatore (VQR), Settore GEV4. E-mail di Sergio Benedetto (03/05/2016) Consiglio Direttivo ANVUR e Coordinatore della VQR 2011-2014. Prot. IAMC-CNR N° 0000079 del 10/01/2017  |
| 2019             | Member of EPRISE (albo degli esperti scientifici istituito presso il MIUR) per la Ricerca di Base. Attestato del Ministero dell'Istruzione, dell'Università e della Ricerca. Dipartimento per la Formazione Superiore e per la Ricerca. Direzione Generale per il coordinamento, la promozione e la valorizzazione della ricerca Ufficio III, 05/03/2019 Ing. Mauro Massulli         |
| Since 19/12/2019 | Member of the Scientific Technical Committee of the Observatory of the Sea Participation Foundation (Prot. OM/190009/PRES) ( <a href="http://www.osservatoriodelmare.it/">http://www.osservatoriodelmare.it/</a> ).  |
| Since 2020       | Voting member of the Subcommission on Neogene Stratigraphy (SNS) of the International Commission on Stratigraphy (ICS) – (Prot. ISMAR-CNR 0005338/2020)  |
| 2021             | Member of EPRISE (albo degli esperti scientifici istituito presso il MIUR) per la Ricerca di Base. Attestato del Ministero dell'Università e della Ricerca. Segretariato Generale. Direzione generale per il coordinamento e la valorizzazione della ricerca e dei suoi risultati Ufficio III. 02/02/2021 Dott. Gianluigi Consoli  |
| 2013             | Elsevier Certificate of Reviewing<br><a href="https://www.reviewerrecognition.elsevier.com/recognition/index?key=A002F298890F30D80A0B15B431D275EC7F2521AEE6E09C3D">https://www.reviewerrecognition.elsevier.com/recognition/index?key=A002F298890F30D80A0B15B431D275EC7F2521AEE6E09C3D</a> - Paleogeography, Paleoclimatology, Paleoecology  |
| 2014             | Elsevier Certificate of Reviewing<br><a href="https://www.reviewerrecognition.elsevier.com/recognition/index?key=A002F298890F30D80A0B15B431D275EC7F2521AEE6E09C3D">https://www.reviewerrecognition.elsevier.com/recognition/index?key=A002F298890F30D80A0B15B431D275EC7F2521AEE6E09C3D</a> - Quaternary International  |
| 2014-2015        | Elsevier Certificate of Reviewing - Continental Shelf Research (August 2015), Global and Planetary Change (May 2015), Marine and Petroleum Geology (October 2014), Quaternary Science Review (August 2014), Quaternary International (June 2014)   |
| 2016             | Elsevier (Deep-Sea Research Part I journal) Reviewer Recognition 2016 for contribution to the peer review process  |
| 2017             | Elsevier (Palaeogeography, Palaeoclimatology, Palaeoecology journal) Reviewer Recognition 2017 for contribution to the peer review process   |
| 2018             | Terra Nova Certificate of Reviewing - Terra Nova   |
| 2018             | Elsevier (Quaternary Science Reviews) Reviewer Recognition 2018 for contribution to the peer review process  |
| 2019             | Elsevier Certificate of Reviewing - Global and Planetary Change<br><a href="https://www.reviewerrecognition.elsevier.com/recognition/index?key=A002F298890F30D80A0B15B431D275EC7F2521AEE6E09C3D">https://www.reviewerrecognition.elsevier.com/recognition/index?key=A002F298890F30D80A0B15B431D275EC7F2521AEE6E09C3D</a>   |
| 2019             | Elsevier Certificate of Reviewing - Quaternary Science Review<br><a href="https://www.reviewerrecognition.elsevier.com/recognition/index?key=A002F298890F30D80A0B15B431D275EC7F2521AEE6E09C3D">https://www.reviewerrecognition.elsevier.com/recognition/index?key=A002F298890F30D80A0B15B431D275EC7F2521AEE6E09C3D</a>   |
| 2006             | Invited Speaker. Pangeo Congress (Innsbruck) Austria 2006 (18-19/09/2006) – Geologie and Palaontologie, Mineralogie and Petrographie alpS. Session S9: Globale events, Biodiversitätsdynamik und Paläomilieus. Contribution titled: The Mediterranean and the Paratethys. New biostratigraphic tools for the correlation between these two different realms by <b>Fabrizio Lirer</b> |
| 2007             | Invited Speaker. FIST Congress (2007) -Workshop W-06 della Commissione Italiana di Stratigrafia (CIS) - W-06 La stratigrafia in Italia. Inquadramento storico, Stato dell'arte, Dibattito sui problemi emergenti (10/09/2007). Convenor: M.B. Cita (Università di Milano) B.   |

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|      | D'Argenio (Università "Federico II" di Napoli e IAMC-CNR). Contribution titled: Problemi attuali in salsa storica: Il Neogene, di Silvia Iaccarino e <b>Fabrizio Lirer</b> .  |
| 2010 | Invited Speaker. AIQUA Congress, Bari 25-26 febbraio 2010. Le correlazioni marino-continentali nel Quaternario. Organizzato da: Bertini A., Ciaranfi n., Marino M., Palombo M.R. Contribution titled: Integrated Marine Stratigraphy for the last 3 million years (My) di <b>Lirer Fabrizio</b> , Sprovieri Mario, Pelosi Nicola. Sessione "Stratigrafia Integrata del Quaternario Marino" chairmen: Capotondi L., Marino M., Schiattarella M.  |
| 2010 | Invited Speaker. Workshop nazionale AIQUA, Commissione Italiana di Stratigrafia, ISPRA, SGI, SPI, CNR (2010) - La nuova scala del Quaternario: implicazioni e sviluppi futuri - Roma 17-18 giugno 2010. Contribution titled: Quaternary Integrated Marine Stratigraphy, di <b>Fabrizio Lirer</b> e Maria Marino   |
| 2011 | Lezione Magistrale (28/04/2011) tenuta all'Università degli Studi Federico II di Napoli, Facoltà di Matematiche, Fisiche e Naturali – La Scienza Plurale: colloqui multidisciplinari della Facoltà di Scienze. ( <a href="http://www.unina.it/-/1338118-ritmi-geologici-e-astronomici-per-la-misura-del-tempo-della-terra">http://www.unina.it/-/1338118-ritmi-geologici-e-astronomici-per-la-misura-del-tempo-della-terra</a> ). Invited Speaker. Lezione Magistrale dal titolo: Ritmi geologici e astronomici per la misura del tempo della Terra, di <b>Fabrizio Lirer</b> . |
| 2011 | Invited Speaker. Convegno Ordine dei Geologi Regione Campania: Approcci multidisciplinari per lo studio dei processi e la mitigazione dei rischi dei sistemi marino-costieri, Salerno 28-29 ottobre 2011 (Organizzatori: G. Pappone, P.C. Aucelli, F. Lirer, R. Lambiase). Contribution titled: l'ambiente marino: proxy sedimentari per la valutazione dell'impatto antropico e del clima, di <b>Fabrizio Lirer</b> .  |
| 2014 | Invited Speaker. Scuola di Paleoantropologia di Perugia (24 febbraio – 1 marzo 2014), Quarta Edizione, Comitato Organizzatore Angelo Barili, Marco Cherin, Sergio Gentili, Roberto Rettori, Bruno Romano (UniPG) - Mario Pagano (Soprintendenza). Contribution titled: Le variazioni climatiche registrate nel Mediterraneo negli ultimi 23 Ma: turnover nel biota marino e confronti con i proxy continentali, by <b>Fabrizio Lirer</b> .  |
| 2014 | Invited Speaker. PAGES Euro-Med2k Working Group held a workshop: Compilation and evaluation of marine and terrestrial archives for Europe and the last 2k years, from 14-17 September 2014 in Soria, Spain. Contribution titled: Introduction to and link with PAGES 2k Italy, di Carlo Barbante e <b>Fabrizio Lirer</b>  |
| 2015 | Invited Speaker. Mistral International Conference 2015- Environment in the Mediterranean statements and prospects for research and society. 20-22 October 2015, Villa Méditerranée, Marseille, FRANCE. Contribution titled: The NextData project, by <b>Fabrizio Lirer</b> . This link serves to see the video of the contribution of this MISTRALS Conference. <a href="https://webcast.in2p3.fr/video/paleomex_programme">https://webcast.in2p3.fr/video/paleomex_programme</a>   |
| 2016 | Invited Speaker Congresso AIQUA (Associazione Italiana per lo Studio del Quaternario) Geocronologia e Workshop Cronostratigrafia del Quaternario, Luci e Ombre, Università di Bologna, 16-17 Giugno 2016, Italia. Contribution titled: Formal subdivision of the Holocene Series/Epoch: Three Proposals by a Working Group of Members of INTIMATE (Integration of Ice-core, Marine and Terrestrial Records) and the Subcommittee on Quaternary Stratigraphy di <b>Lirer F.</b> , Capotondi L., Walker M., Head J.M.   |
| 2017 | Invited Speaker. Workshop – Piano Nazionale Caldo, estate 2017. Cambiamenti Climatici, eventi estremi e misure di adattamento e mitigazione. Palermo, CNR 23 giugno 2017. Contribution titled: Il paleoclima, analizzare il passato per comprendere il futuro. Primi dati sull'interazione tra Atlantic Multidecadal Oscillation index e l'asma dal 1960 ad oggi (USA), presentato da <b>Lirer Fabrizio</b> e Bonomo Sergio.  |
| 2005 | Chair ( <b>Fabrizio Lirer</b> ) of Scientific session: Integrated Stratigraphy – Paratethys. 12° Congress of Regional Committee on Mediterranean Neogene Stratigraphy (RCMNS) September 2005 (6-11/09/2005) Vienna - Patterns and Processes in the Neogene of the Mediterranean region. Abstract book. Editors Mathias Harzhauser and Martin Zuschin.   |
| 2009 | Co-Chair (Mirian Cobianchi, <b>Fabrizio Lirer</b> , Maria Marino) of Scientific session N 3: The climate system and its perturbations during the Pleistocene: biological, chemical and physical   |

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|      | evidences in the marine sedimentary record. Congresso Geoitalia 2009 – 9-11 settembre 2009 Rimini.  |
| 2010 | Co-Chair (Jean-Pierre Suc, Francisco Sierro, Christian Gorini, <b>Fabrizio Lirer</b> ) of Scientific session: Paleoenvironments, Paleoclimate and Messinian Event. ESF-Institut Carnot Edrome-INSU-Actions Marges Science Meeting in Banyuls: the GOLD project, drilling in the Western Mediterranean Sea. An ESF Magellan Workshop ECORD-ESF-EDROME-INSU-CNRS, 19th-22nd October 2010 -  |
| 2011 | Co-Chair (Balini Marco, Bertini Adele, Ciaranfi Neri, <b>Lirer Fabrizio</b> ) of Scientific session M2: Il contributo italiano alla definizione e taratura di scale cronostratigrafiche e geocronologiche. Congresso Geoitalia 2011- 21-23 settembre 2011, Rimini.  |
| 2011 | Co-Chair (Werner Piller and <b>Fabrizio Lirer</b> ) of the Scientific session 4: Dynamic of marine ecosystems from the Atlantic to the Paratethys. Joint RCMNS-RCANS Interim Colloquium, Salamanca, September 21-23 2011. Climate changes, bioevents and geochronology in the Atlantic and Mediterranean over the last 23 Myr. Abstract book Joint RCMNS-RCANS Interim Colloquium, 242 pages. F. Sierro and Gonzales-Delgado J.A. editors (deposito legal S1004-2011)   |
| 2011 | Chair ( <b>Fabrizio Lirer</b> ) for Congresso Annuale GEOSED 2011, Seconda Università di Napoli, Caserta 27-28 settembre 2011.  |
| 2012 | Co-Chair ( <b>Fabrizio Lirer</b> , Lucilla Capotondi) of Scientific session H04 - Marine proxy records. Congresso AIQUA 2012: The transition from natural to anthropogenic-dominated environmental change in Italy and the surrounding regions since the Neolithic- Pisa, February 15-16-17. ( <a href="http://www.aiqua.it/index.php/convegni-e-workshop/31-the-transition-from-natural-to-anthropogenic-dominated-environmental-change-in-italy-and-the-surrounding-regions-since-the-neolithic">http://www.aiqua.it/index.php/convegni-e-workshop/31-the-transition-from-natural-to-anthropogenic-dominated-environmental-change-in-italy-and-the-surrounding-regions-since-the-neolithic</a> ). |
| 2012 | Co-Chair (Mihaela Melinte-Dobrinescu and <b>Fabrizio Lirer</b> ) of Scientific session: Paratethys - Palaeogeography, Stratigraphy and Mediterranean Interactions. RCMNS Interim Colloquium 2012 Bucharest -Paratethys-Mediterranean Interactions: Environmental crises during the Neogene (27-30- September 2012) ( <a href="https://www.geocomar.ro/website/docs/noutati/2012.09.27/RCMNS%20Bucharest%202012_schedule.pdf">https://www.geocomar.ro/website/docs/noutati/2012.09.27/RCMNS%20Bucharest%202012_schedule.pdf</a> ).   |
| 2013 | Co-Chair ( <b>Fabrizio Lirer</b> , Gonzalo Jimenez, Mario Sprovieri, Laurance Vidal) for Scientific session: Advances in Mediterranean Paleooceanography and Recent Developments in Mediterranean Paleoclimatology. 14th RCMNS Congress, Istanbul (Turkey) 2013, 8-12 September. Neogene to Quaternary Geological Evolution of Mediterranean, Paratethys and Black Sea.   |
| 2019 | Co-Chair (Federico Di Rita, <b>Fabrizio Lirer</b> e Donatella Magri) of Scientific session: Quaternary climate dynamics peculiar to the Mediterranean region. INQUA Congress 2019- Dublin, Ireland, 25-31 July 2019. ( <a href="http://www.inqua2019.org/">http://www.inqua2019.org/</a> ). Co-chair: ( <a href="http://www.inqua2019.org/programme/special-sessions/#toggle-id-76">http://www.inqua2019.org/programme/special-sessions/#toggle-id-76</a> )   |

## Part VI - Funding Information [grants as PI-principal investigator or I-investigator]

| Year             | Title   | Program   | Grant value   |
|------------------|---|---|---------------|
| 1998-2000<br>(I) | Paleoceanographic and chronological reconstruction of the Middle and Upper Miocene in the Mediterranean through biostratigraphic analysis with calcareous plankton, cyclostratigraphy and stratigraphy isotopic. Comparisons with ocean areas. Principal Investigator Prof. Silvia Iaccarino (Parma | Project founded by MIUR-PRIN 1998 <a href="http://prin.cineca.it/cgi-bin/finanziati_x_area.pl?parte=1&amp;anno=1998&amp;area=04">http://prin.cineca.it/cgi-bin/finanziati_x_area.pl?parte=1&amp;anno=1998&amp;area=04</a> | 96.577,00 Eur |

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| 2000-2001<br>(I) | University). <b>Investigator Dr. Fabrizio Lirer at Parma University Unit</b>   | Project founded by MIUR-PRIN 2000 ( <a href="https://prin.cineca.it/cgi-bin/finanziati_x_area.pl?parte=1&amp;anno=2000&amp;area=04">https://prin.cineca.it/cgi-bin/finanziati_x_area.pl?parte=1&amp;anno=2000&amp;area=04</a> ) | 92.962,00 Eur |
| 2000-2005<br>(I) | Environments and Ecosystem Dynamics of the Eurasian Neogene (EEDEN). Palaeoenvironmental reconstruction during the Miocene in the Mediterranean and in the Paratethys. New biostratigraphic schemes for correlation between these two palaeogeographic areas. ( <a href="http://archives.esf.org/coordinating-research/research-networking-programmes/life-earth-and-environmental-sciences-lee/completed-esf-research-networking-programmes-in-life-earth-and-environmental-sciences.html?tx_ameosrnp_pi1%5Bpage%5D=2&amp;cHash=a9048a4b596f54261f6621395edb9e5f">http://archives.esf.org/coordinating-research/research-networking-programmes/life-earth-and-environmental-sciences-lee/completed-esf-research-networking-programmes-in-life-earth-and-environmental-sciences.html?tx_ameosrnp_pi1%5Bpage%5D=2&amp;cHash=a9048a4b596f54261f6621395edb9e5f</a> ). Project partners [(Istituto de Paleontologia M. Crusafont (Sabadell, Spagna), Università di Helsinki, Università di Parma, Museo di Storia Naturale di Vienna, Charles University (Czech Republic), Forschungsinstitut und Naturmuseum Senckenberg (Germania), Università di Lione 1.] Principal Investigator Prof. J.E. Meulenkamp (Università di Utrecht). <b>Investigator Dr. Fabrizio Lirer for Parma University</b> (PI of Parma University and Member of the Steering Committee of EEDEN Project, Prof. Silvia Iaccarino). Prot. ISMAR-CNR 0000531/2021 of 01/02/2021 (Document of Prof. Werner Piller from Graz University, Austria, Member of the Steering Committee of EEDEN Project). | Project founded by European Research Project – ESF Research Networking Programme – Life, Earth and Environmental Science (LEE)  |               |
| 2004-2011<br>(I) | CARG Project “realizzazione ed informatizzazione del foglio geologico in scala 1:50.000 – n° 431 Caserta. The following link contains all the information concerning my position as  | Project founded by Regione Campania   |               |

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|                  | <p>micropaleontologist (Biostratigraphy)<br/> <a href="http://www.isprambiente.gov.it/Media/carg/campania.html">http://www.isprambiente.gov.it/Media/carg/campania.html</a> Principal Investigator Prof. Gabriele Carannante (Napoli Federico II University).<br/> <b>Investigator Dr. Fabrizio Lirer (IAMC-CNR)</b></p>   |  |
| 2004-2009<br>(I) | <p>CARG Project “realizzazione ed informatizzazione del foglio geologico in scala 1:50.000 – n° 405 Campobasso. The following link contains all the information concerning my position as micropaleontologist (Biostratigraphy) and field activities (<a href="http://www.isprambiente.gov.it/Media/carg/405_CAMPOBASSO/Foglio.html">http://www.isprambiente.gov.it/Media/carg/405_CAMPOBASSO/Foglio.html</a>); Principal Investigator Prof. Gerardo Pappone (Molise University).<br/> <b>Investigator Dr. Fabrizio Lirer (IAMC-CNR)</b></p> | <p>Project founded by Regione Molise</p> <p>454.482,00 Eur</p>   |
| 2004-2005<br>(I) | <p>High resolution reconstruction of the paleoclimatic, paleoceanographic and eco-biostratigraphic evolution of the Mediterranean basin in the late Quaternary (0-450 Ky Bp) based on the analysis of faunal, floristic, chemical and isotopic proxies. Principal Investigator Prof. Rodolfo Sprovieri (Palermo University). <b>Investigator Dr. Fabrizio Lirer (IAMC-CNR) for Palermo University Unit</b></p>   | <p>Project founded by MIUR-PRIN 2004 (<a href="http://prin.cineca.it/cgi-bin/finanziati_x_area.pl?parte=1&amp;anno=2004&amp;area=04">http://prin.cineca.it/cgi-bin/finanziati_x_area.pl?parte=1&amp;anno=2004&amp;area=04</a>)</p> <p>101.000,00 Eur</p> |
| 2005-2006<br>(I) | <p>Climate change, palaeoceanography of the Southern Ocean (southern sector of the Indian Ocean) and fluctuations of the eastern Antarctic ice sheet during the Middle Miocene, deduced from the sediment analysis of the Kerguelen Plateau, Antarctica. ID-PROJECT 2006/4.01. Principal Investigator Prof. Luca Maria Foresi (Siena University).<br/> <b>Investigator Dr. Fabrizio Lirer (IAMC-CNR) for Siena University Unit</b></p>   | <p>Project founded by Programma Nazionale di Ricerche in Antartide (PNRA) - FORES13-Prot. Proposte_012 Participant to project founded by Programma Nazionale di Ricerche in Antartide (PNRA) /2006/jm-28/04/2006</p> <p>70.000,00 Eur</p>                |
| 2006-2009<br>(I) | <p>Austrian Science Foundation project (P18519-B17) - Evolution within Isolated Ecosystems: The Neogene Dinaride Lake System. Principal Investigator Dr. Oleg Mandic (Natural History Museum of Vienna).<br/> <b>Investigator Dr. Fabrizio Lirer at IAMC-CNR of Naples</b> (Document of Dr. Oleg Mandic from Natural History Museum of Vienna, Austria, PI of the Project, Prot. ISMAR-CNR 0000596/2021 del 03/02/2021)</p>  | <p>Project founded by Austrian Science Foundation (FWF) project number (P18519-B17)</p> <p>192.289,34 Eur</p>  |

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| 2006-2007<br>(I)  | In search of the Global Stratotype Sections and Points (GSSPs) of the Burdigalian and Langhian stages and paleoceanographic implications. Principal Investigator Prof. Silvia Iaccarino (Parma University). prot. 2006047534. <b>Investigator Dr. Fabrizio Lirer (IAMC-CNR) for Siena University Unit</b> (PI for Siena University Prof. Roberto Mazzei)   | Project founded by MIUR-PRIN 2006 (prin.miur.it/esq/ESQ/esq.php?chiave=asfunkILQDQ]LDWL   TnP H91L99uQ1171367386&prin=xgqvovnicpGhDGdwKd&valore_param[]=04). Area: 04 - Scienze della Terra  | 70.000,00 Eur  |
| 2006-2008<br>(PI) | Geobiology and Paleoceanography of the eastern Mediterranean Middle Miocene. <b>Principal Investigator Dr. Fabrizio Lirer (IAMC-CNR)</b> <a href="http://www.esteri.it/MAE/doc/4_28_67_81_91_89_103.pdf">http://www.esteri.it/MAE/doc/4_28_67_81_91_89_103.pdf</a>   | Project founded by PROGRAMME OF THE 8th SESSION OF THE JOINT GREEK-ITALIAN COMMITTEE FOR THE SCIENTIFIC AND TECHNOLOGICAL CO-OPERATION 2006-2008. Ministry for Foreign Affairs, Directorate General for Cultural Promotion and Cooperation | Project financed yearly by the Ministry of each countries short-term stay (up to 10 days) and long-term stay (1 / 2 or 3 months) and some facilities. All the information are reported in the Protocol |
| 2006-2009<br>(PI) | Vulnerability of Italian coasts and marine ecosystems to climate change and their role in the Mediterranean carbon cycles (VECTOR) – Principal Investigator Prof. Cesare Corselli (CONISMA). Linea2 VULCOST: Vulnerability of 5 COSTier systems, impact of climate change on river transport and aquifers. Principal Investigator Prof. Bruno D'Argenio (IAMC-CNR) and <b>Principal Investigator for scientific coordination activities for VULCOST project at the mouth of the Sele River (Campania) Dr. Fabrizio Lirer (IAMC-CNR)</b> PROT. IAMC-CNR N°0006840 del 20/11/2012; | Project funded by the Ministry of Economy and Industry- Fondo Integrativo Speciale per la Ricerca FISR. Prot.n.101/CC/tp/st/2006 del CONISMA)  | 455.593,60 Eur (for VULCOST Linea2 of VECTOR project)  |
| 2007<br>(I)       | Integrated Stratigraphy of the Chattian/Rupelian boundary in the Mediterranean area (OLIS). Principal Investigator Prof. Rodolfo Coccioni (Urbino University). <b>Investigator at IAMC-CNR Dr. Fabrizio Lirer</b>  | Project founded by CNR no. 97.00242.05   | 15.000,00 Eur  |
| 2009-2012<br>(I)  | GTSnext (Towards a next generation of the Geological Time Scale for the last 100 million years- The European contribution to EARTHTIME- Task III-Project 1- Dating the Late Cretaceous: pushing orbital tuning to its limits. PTN-GA-2008-215458 (Grant Agreement Number 215458). Principal Investigator of Task III Dr. Mario   | Project founded by Marie Curie Initial Training Network (ITN) under the 7th Framework Programme of the European Union  | 2.597.791,00 Eur   |

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| 2010-2011<br><b>(PI)</b> | Sprovieri of IAMC-CNR). <b>Investigator for IAMC-CNR Dr. Fabrizio Lirer.</b><br>Collaboration agreement (901/GEOS/548) between IAMC-CNR and Ecole Normale Supérieure (ENS) Laboratoire de Géologie Paris, for micropaleontological analysis of sediment samples from the island of Cyprus for the study of surface geology. <b>Principal Investigator Dr. Fabrizio Lirer (IAMC-CNR). Prot. IAMC-CNR N° 0002112</b>   | Project founded by Ecole Normale Supérieure (ENS)  | 4.801,94 Eur  |
| 2010-2011<br><b>(I)</b>  | Avant-Fosse Apenninique et crise de salinité Messinienne (AFAME). CNRS Prot. BG/LG/2010-14. Principal Investigator Dr. Rabineau, Marina, CR1 CNRS, Domaines Océaniques (UMR 6538), IUEM. <b>Investigator for IAMC-CNR Dr. Fabrizio Lirer</b>   | Project founded by CNRS Project-ACTION SYSTER  | 54.460,00 Eur   |
| 2012-2013<br><b>(I)</b>  | Transitions from glacial to interglacial periods deduced from the multidisciplinary study of glaciomarine sediments deposited in the Ross Sea (Antarctica). (PROP09-150-PROT.CSNA/273/2010). Principal Investigator Dr. Paola Del Carlo (INGV Pisa). <b>Investigator for IAMC-CNR Dr. Fabrizio Lirer</b>   | Project founded by Programma Nazionale di Ricerche in Antartide (PNRA)   | 55.000,00 Eur   |
| 2012-2018<br><b>(PI)</b> | The Project of Interest NextData ( <a href="http://nextdataprotect.it">http://nextdataprotect.it</a> ) - A national system for the retrieval, storage, access and diffusion of environmental and climate data from mountain and marine areas. Principal Investigator Dr. Antonello Provenzale (IGG-CNR). Work Package (WP 1.5) of NEXDATA Project: Climatic data from marine sediments. <b>Principal Investigator Dr. Fabrizio Lirer (IAMC-CNR) PROT. IAMC-CNR N°0006841 (20/11/2012), PROT. IAMC-CNR N° 0001196 of 05/02/2014</b> | Project founded by MIUR-PNR 2011-2013  | 525.000,00 Eur (for WP 1.5 - Climatic data from marine sediments) |
| 2012-2015<br><b>(PI)</b> | AMICUS - Study of the reduction and protection of pollutants in the coastal environment in selected areas of Calabria. PON01_02818 (Partners: IAMC-CNR, Calabria University, Ecologia Oggi S.P.A.). <b>Principal Investigator for IAMC-CNR Dr. Fabrizio Lirer (Prot. IAMC-CNR N°0005313 del 13/09/2012)</b>  | Project founded by Programma Operativo Nazionale Ricerca e Competitività per le Regioni di Convergenza 2007/2013 | 540.501,00 Eur (for IAMC-CNR)                                     |
| 2012-2015<br><b>(PI)</b> | Integrated Management System for Coastal Erosion (SIGIEC) PON01_2651. (Partners: IAMC-CNR, ISAC-CNR, Calabria University,  | Project founded by Programma Operativo Nazionale Ricerca e   | 1.001.230,51 Euro (for IAMC-CNR)                                  |

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|                          | Sistemi Territoriali S.r.l, Massa Spin-off S.r.l., CRATI s.c.r.l). Principal Investigator Prof. Rosanna De Rosa (Calabria University). <b>Principal Investigator for IAMC-CNR Dr. Fabrizio Lirer (IAMC-CNR N°0009965 del 22/09/2014)</b>  | Competitività per le Regioni di Convergenza 2007/2013  |                                   |
| 2013-2015<br><b>(PI)</b> | Scientific Agreement within the NEXTDATA project between ISMAR-CNR Bologna and IAMC-CNR Naples to analyze marine sediment cores. <b>Principal Investigator Dr. Fabrizio Lirer (Prot. IAMC-CNR N°0006022 - 01/08/2013)</b>   | Project founded by IAMC-CNR with NEXTDATA project  | 4.000,00 Eur                      |
| 2014-2016<br><b>(I)</b>  | The Burdigalian GSSP (Global Stratotype Section and Point): the missing tile to complete the Neogene interval of the Geological Time Scale. PRIN 20123MCKT5– settore PE, Linea C. Principal Investigator Prof. Agata Di Stefano (Catania University). <b>Investigator Dr. Fabrizio Lirer (IAMC-CNR) for Siena University Unit (PI for Siena University Prof. Luca Maria Foresi).</b>  | Project founded by MIUR-PRIN 2012<br><a href="http://attiministeriali.miur.it/anno-2013/ottobre/dd18102013-1959.aspx">http://attiministeriali.miur.it/anno-2013/ottobre/dd18102013-1959.aspx</a> | 195.401,00 Eur                    |
| 2017-2023<br><b>(PI)</b> | ERC Consolidator Grant “TIMED” Testing the role of Mediterranean thermohaline circulation as a sensor of transient climate events and shaker of North Atlantic Circulation". Proposal number: 683237, Proposal acronym: TIMED. Principal Investigator Prof. Isabel Cacho (Barcelona University) – <b>Principal Investigator for Associate Partner Organisation IAMC-CNR Dr. Fabrizio Lirer (GRANT AGREEMENT NUMBER — 683237 — TIMED)</b>  | ERC Consolidator Grant Horizon 2020, Excellent Science, Call: ERC-2015-CoG, Topic: ERC-CoG-2015, Type of action: ERC-COG,  | 124.375,00 Eur<br>(for IAMC-CNR)  |
| 2018-2020<br><b>(PI)</b> | (ItalGas project), CNR - Italian Gas Society S.p.A. - Experimental investigations and comparative evaluations useful for verifying the compliance of the gas distribution network in selected sections of the Italian territory. Project aimed at sedimentological analysis of discrete sediment samples. (ITALGAS-CNR n°3216000015 prot. CNR n.0018528 17/03/2016). Principal Investigator for CNR Dr. Giorgio Iabichino (IGG-CNR). <b>Principal Investigator for ISMAR-CNR Dr. Fabrizio Lirer (Prot. CNR 0002080_2020_12/05/2020)</b> | Project founded by Italian Gas Society S.p.A   | 527.820,68 Eur<br>(for ISMAR-CNR) |

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|--------------------------|--|---|------------------------------|
| 2019-2021<br><b>(PI)</b> | <p>RECONstrucción de las comunidades de MAR Profundo en Márgenes Continentales Ibéricos en las últimas décadas/siglos (RECOMARES). ID Project RTI201800X094066IV0 (<a href="http://www.icm.csic.es/en/projects">http://www.icm.csic.es/en/projects</a>). Prot. RTI2018-094066-B-I0. Principal Investigator Dr. Joan Cartes Rodriguez (CSIC- Barcellona, Recursos Marins Renovable). <b>Principal Investigator for sub-task D2 of RECOMARES project: Changes in the planktonic foraminiferal communities Dr. Fabrizio Lirer (ISMAR-CNR)</b></p> | Project founded by MINISTERIO DE CIENCIA, INNOVACIÓN y UNIVERSIDADES (Spagna)   | 9.380,00 Eur (for ISMAR-CNR) |
| 2019-2021<br><b>(I)</b>  | <p>Human-Induced Changes Compromising the open ocean: Understanding from Paleooceanography (HICCUP). ID Project number TI2018-095083-B-I00. Principal Investigator Eva Calvo, (Departament de Biologia Marina i Oceanografia Institut de Ciències del Mar, CSIC, Bacellona, Spagna). <b>Investigator for HICCUP project Dr. Fabrizio Lirer (ISMAR-CNR)</b> (Prot. CNR 3743 - 07/09/2020)</p>   | Project founded by MINISTERIO DE CIENCIA, INNOVACIÓN y UNIVERSIDADES (Spagna) ( <a href="http://www.icm.csic.es/en/projects">http://www.icm.csic.es/en/projects</a> ) | 181.000 Eur                  |
| 2020-2023<br><b>(I)</b>  | <p>TRANSMOW: TRACiNg chemical and isotopic Signature of Mediterranean Outflow Waters and its response to past climate transitions. ID Project number PID2019-105523RB-I00. Principal Investigator Isabel Cacho &amp; Leopoldo Pena (Barcelona University). <b>Investigator for ISMAR-CNR for TRANSMOW project Dr. Fabrizio Lirer</b></p>   | Project founded by MINISTERIO DE CIENCIA, INNOVACIÓN y UNIVERSIDADES (Spagna)   | 265.595,00 Eur               |
| 2020-2022<br><b>(I)</b>  | <p>AMUSED (A MULTidisciplinary Study of past global climatE changes from continental and marine archives in the MeDiterranean region). Principal Investigator Dr. Patrizia Macrì (INGV-Roma). <b>Investigator for ISMAR-CNR Dr. Fabrizio Lirer</b></p>   | Project founded by Istituto Nazionale di Geofisica e Vulcanologia (INGV). Delibera del CdA n. 671/2018 del 31/10/2018   | 350.000,00 Eur               |
| 2021-2023<br><b>(PI)</b> | <p>COLLABORATION AGREEMENT within the "AMUSED (A MULTidisciplinary Study of past global climatE changes from continental and marine archives in the MeDiterranean region) project (founded by Istituto Nazionale di Geofisica e Vulcanologia, Delibera del CdA n. 671/2018 del 31/10/2018), between INGV, ISMAR-CNR, IRPI-CNR, IGAG-CNR, ISP-CNR, Dipartimento di Scienze della Terra e del Mare dell'Università degli</p>   | Project founded by Istituto Nazionale di Geofisica e Vulcanologia (INGV). Delibera del CdA n. 671/2018 del 31/10/2018   | 7.500,00 Eur (for ISMAR-CNR) |

Studi di Palermo, Dipartimento di Fisica e Geologia dell'Università degli Studi di Perugia, Dipartimento di Scienze Ambientali, Informatica e Statistica, dell'Università degli Studi Ca' Foscari di Venezia e Dipartimento di Geoscienze L'Università degli Studi di Padova. **Principal Investigator for ISMAR-CNR Dr. Fabrizio Lirer** (ISMAR-CNR, Napoli).

## Part VII – Research Activities

### Keywords

### Brief Description

|                         |   |
|-------------------------|---|
| Planktonic foraminifera | <p>Fabrizio Lirer directed the scientific interest on planktonic foraminifera since his researchers at Earth Science Department of Pisa University for studies related to hydrocarbon exploration in the South Apennines (Mesozoic and Cenozoic deposits), successively continued at Parma University for PhD and from 2003 at IAMC-CNR in Naples, for the Biostratigraphy of Neogene and Quaternary records of the Mediterranean area. His research on planktonic foraminifera is focused to improve the knowledge gaps on two main challenges. The first challenge is focused to use the planktonic foraminifera in Biostratigraphy for the definition/implementation of the accuracy of standard biostratigraphic scheme of the Mediterranean area and to contribute to the extension of the Astronomical Time Scale in the late Cenozoic. For this reason, he becomes Voting member of the Subcommittee on Quaternary Stratigraphy (SQS) and of Subcommittee on Neogene Stratigraphy (SQS), and Secretary of the Regional Committee on Mediterranean Neogene Stratigraphy (RCMNS) and of Italian Commission on Stratigraphy (CIS). The second challenge is focused to use planktonic foraminifera and geochemistry performed on their carbonate shell in paleoclimatology and paleoceanography. The main goal is to investigate the influence and evolution of astronomically-forced climate changes in the late Cenozoic world and to reconstruct the past climatic oscillations documented in the marine records of the Mediterranean over the last millennia and their relations with the socio-cultural evolution of the Mediterranean area. He participated in several Mediterranean oceanographic cruises to the Tyrrhenian and Adriatic seas, Sicily Channel and in Sardinia dedicated to study late Quaternary Mediterranean records to reconstruct past climate oscillation, and since 2018, he became formally member of Dynamic of Paleoclimate Group of CNR. He was tutor and co-tutor of several PhD students and Master thesis focused on Mediterranean past climate reconstruction and since 2012 he was Member of the Academic Board of the PhD Schools (Sciences of the Sea, Earth and Climate Phenomena and Environmental Risks) at University Parthenope of Naples. From 2012 to 2018, he coordinated the scientific research on Mediterranean paleoclimatic data from marine sedimentary cores for NexData project (PNR 2011-2013, <a href="http://www.nextdataproject.it/">http://www.nextdataproject.it/</a>) and from 2017 is become Principal Investigator for IAMC-CNR (Associate Partner Organization) of a ERC Consolidator Grant “TIMED” (Testing the role of Mediterranean thermohaline circulation as a sensor of transient climate events and shaker of North Atlantic Circulation). In 2020, he starts a new challenge within an agreement between University and CNR focused to reconstruct the late Cenozoic CO<sub>2</sub> perturbation from Mediterranean area through geochemistry and planktonic foraminifera with the aim to propose the first continuous CO<sub>2</sub> signal over the last 23 Ma.</p> |
| Biostratigraphy         |   |
| Mediterranean           |   |
| Paleoclimatology        |   |
| Paleoceanography        |   |
| Cyclostratigraphy       |   |
| Neogene                 |   |
| Quaternary              |   |

## Part VIII – Summary of Scientific Achievements

| Product type           | Number | Data Base      | Start | End  |
|------------------------|--------|----------------|-------|------|
| Papers [international] | 92     | Scopus         | 2000  | 2020 |
| Papers [national]      |        |                |       |      |
| Books [scientific]     | 1      | Google Scholar | 2020  | 2020 |
| Books [teaching]       | 2      | Google Scholar | 2005  | 2007 |

|                               |                          |
|-------------------------------|--------------------------|
| Total Impact factor           | 182,379 (Web of Science) |
| Total Citations               | 1905 (Scopus)            |
| Average Citations per Product | 20,70 (Scopus)           |
| Hirsch (H) index              | 27 (Scopus)              |
| Normalized H index*           | 1,35 (Scopus)            |

\*H index divided by the academic seniority.

## Part IX– Selected Publications (Citations from Scopus), IF (Web of Science), IFmedio (Web of Science)

List of the publications selected for the evaluation. For each publication report title, authors, reference data, journal IF (if applicable), citations, press/media release (if any).

1. Margaritelli G., Cacho I., Català, A., Barra M., Bellucci L.G., Lubritto C., Rettori R., **Lirer F.**, (2020). Persistent warm Mediterranean surface waters during the Roman period. *Scientific Reports*, 10, <https://doi.org/10.1038/s41598-020-67281-2>. Citations (3), IF (3,998), IFmedio (4,4).
  - a. Press release:
    - i. Barcelona University: [https://www.ub.edu/web/ub/en/menu\\_eines/noticies/2020/07/016.html?fbclid=IwAR0i5pKgS6iCthU\\_9IQEduMqE4C8tq74pv3P5tHZhK\\_QZEv3Go6xGRtzAL0](https://www.ub.edu/web/ub/en/menu_eines/noticies/2020/07/016.html?fbclid=IwAR0i5pKgS6iCthU_9IQEduMqE4C8tq74pv3P5tHZhK_QZEv3Go6xGRtzAL0);
    - ii. CNR: <https://www.cnr.it/it/comunicato-stampa/9558/impero-romano-temperature-marine-da-record>;
    - iii. 23 press release as follows: BluePlanetHeart.it; Fanpage.it; NONSOLONAUTICA.IT; 9colonne.it; 9colonne.it; Aise.it; Altoadige.it; Ansa.it; Ansamed.info; Corrierequotidiano.it; Dazebaonews.it; Gds.it; Giornaletrentino.it; Meteoweb.eu; Quasimezzogiorno.org; Ragusaoggi.it; Rainews.it; Rivistamicron.it; Romadailynews.it; Tg24.sky.it; Ulixesnews.it; Vglobale.it; Zarabaza.it (20 dated 17/07/2020 and 3 dated 18/07/2020. To control, document available).
    - iv. Intervista alla trasmissione Linea Blu andata in onda su Rai 1 il 22/08/2020 (<http://www.irpi.cnr.it/outreach/linea-blu-eolie-e-ricerche-sul-clima-del-mediterraneo/>), per l'articolo Margaritelli G., Cacho I., Català, A., Barra M., Bellucci L.G., Lubritto C., Rettori R., Lirer F., (2020). Persistent warm Mediterranean surface waters during the Roman period. *Scientific Reports*, 10, <https://doi.org/10.1038/s41598-020-67281-2>
2. **Lirer F.**, Foresi LM, Iaccarino SM, Salvatorini G, Turco E, Cosentino C, Sierro FJ, Caruso A (2019). Mediterranean Neogene planktonic foraminifer biozonation and biochronology. *Earth-Science Reviews*, vol. 196, ISSN: 0012-8252, doi: 10.1016/j.earscirev.2019.05.013. Citations (20), IF (9,724), IFmedio (5,534).
3. Margaritelli G, Cisneros M, Cacho I, Capotondi L, Vallefucoco M, Rettori R, **Lirer F.**, (2018). Climatic variability over the last 3000 years in the central - western Mediterranean Sea (Menorca Basin)

- detected by planktonic foraminifera and stable isotope records. *Global and Planetary Change*, vol. 169, p. 179-187, ISSN: 0921-8181, doi: 10.1016/j.gloplacha.2018.07.012. Citations (16), IF (4,1), IFmedeo (2,662).
4. Di Rita F, **Lirer F**, Bonomo S, Cascella A, Ferraro L, Florindo F, Insinga D, Lurcock P, Margaritelli G, Petrosino P, Rettori R, Vallefucio M, Magri D., (2018). Late Holocene forest dynamics in the Gulf of Gaeta (central Mediterranean) in relation to NAO variability and human impact. *Quaternary Science Reviews*, vol. 179, p. 137-152, ISSN: 0277-3791, doi: /10.1016/j.quascirev.2017.11.012. Citations (27), IF (4,641), IFmedeo (3,581).
  5. Margaritelli G, Vallefucio M, Di Rita F, Capotondi L, Bellucci LG, Insinga DD, Petrosino P, Bonomo S, Cacho I., Cascella A., Ferraro L., Florindo F, Lubritto C, Lurcock PC, Magri D, Pelosi N, Rettori R, **Lirer F.**, (2016). Marine response to climate changes during the last five millennia in the central Mediterranean Sea. *Global and Planetary Change*, vol. 142, p. 53-72, ISSN: 0921-8181, doi: doi.org/10.1016/j.gloplacha.2016.04.007. Citations (52), IF (3,915), IFmedeo (2,524).
  6. Cisneros M, Cacho I, Frigola J, Canals M, Masqué P, Martrat B, Casado M, Grimalt J, Pena L D, Margaritelli G, **Lirer F.**, (2016). Sea surface temperature variability in the central-western Mediterranean Sea during the last 2700 years: a multi-proxy and multi-record approach. *Climate of the Past*, vol. 12, p. 849-869, ISSN: 1814-9324, doi: 10.5194/cp-12-849-2016. Citations (27), IF (3,543), IFmedeo (3,175).
  7. **Lirer F**, Sprovieri M, Vallefucio M, Ferraro L, Pelosi N, Giordano L, Capotondi L (2014). Planktonic foraminifera as bio-indicators for monitoring the climatic changes that have occurred over the past 2000 years in the southeastern Tyrrhenian Sea. *Integrative Zoology*, vol. 9, p. 542-554, ISSN: 1749-4877, doi: DOI: 10.1111/1749-4877.12083. Citations (28), IF (1,904), IFmedeo (1,364).
  8. **Lirer F**, Sprovieri M, Ferraro L, Vallefucio M, Capotondi L, Cascella A, Petrosino P, Insinga DD, Pelosi N, Tamburrino S, Lubritto C, (2013). Integrated stratigraphy for the Late Quaternary in the eastern Tyrrhenian Sea. *Quaternary International*, vol. 292, p. 71-85, ISSN: 1040-6182, doi: doi.org/10.1016/j.quaint.2012.08.2055. Citations (49), IF (2,128), IFmedeo (1,344).
  9. Batenburg S J, Sprovieri M, Gale A S, Hilgen F J, Husing S, Laskar J, Liebrand D, **Lirer F**, Orue-Etxebarria X, Pelosi N, Smit J (2012). Cyclostratigraphy and astronomical tuning of the Late Maastrichtian at Zumaia (Basque country, Northern Spain). *Earth and Planetary Science Letters*, 359-360, p. 264-278, ISSN: 0012-821X, doi: <http://dx.doi.org/10.1016/j.epsl.2012.09.054>. Citations (55), IF (4,349), IFmedeo (3,478).
  10. **Lirer F.**, Harzhauser M., Pelosi N., Piller W.E., Schmid H.P., Sprovieri M., (2009). Astronomically forced teleconnection between Paratethyan and Mediterranean sediments during the Middle and Late Miocene. *Palaeogeography, Palaeoclimatology, Palaeoecology* 275, p. 1–13. DOI: 10.1016/J.PALAEO.2009.01.006. Citations (53), IF (2,646), IFmedeo (1,781).
  11. Coccioni R., Marsili A., Montanari A., Bellanca A., Neri R., Bice D.M., Brinkhuis H., Church N., Macalady A., A. Mcdaniel, Deino A., **Lirer F.**, Sprovieri M., Maiorano P., Monechi S., Nini C., Nocchi M., Pross J., Rochette P., Sagnotti L., Tateo F., Touchard Y., Van Simaey S.& Williams G.L., (2008). Integrated stratigraphy of the Oligocene pelagic sequence in the Umbria- Marche basin (north-eastern Apennines, Italy): A potential Global Stratotype Section and Point (GSSP) for the Rupelian/Chattian boundary. *Geological Society of America Bulletin*, v. 120, 3/4, 487–511. DOI: 10.1130/B25988.1. Citations (52), IF (3,032), IFmedeo (2,473).
  12. **Lirer F.** and Iaccarino S., (2005). Integrated Stratigraphy (Cyclostratigraphy and Biochronology) of late Middle Miocene deposits in the Mediterranean area and comparison with the North and Equatorial Atlantic Oceans: synthesis of the major results. *Terranova*, 17, 338-349. DOI: 10.1111/J.1365-3121.2005.00619.X. Citations (16), IF (1,739), IFmedeo (1,550).

#### **Part X– All Publications (Citations from Scopus), IF (Web of Science), IFmedeo (Web of Science)**

1. **Lirer F.**, (2000). A new technique for retrieving calcareous microfossils from lithified lime deposits. *Micropaleontology* vol. 46, n°4, pp. 365-369. ISSN: 0026-2803. Citations (91), IF (0,456), IFmedeo (0,427).
2. Turco E., Bambini A., Foresi L.M., **Lirer F.**, Iaccarino S., Mazzei R., Salvatorini G., (2002). Middle Miocene High-resolution calcareous plankton biostratigraphy at Site 926 (Leg 154, Equatorial Atlantic

- Ocean): paleoecological and paleobiogeographical implications. *Geobios* 35 (M.S. 24), 257-276. DOI: 10.1016/S0016-6995(02)00064-5. Citations (40), IF (0,410), IFmedio (0,536).
3. Foresi L.M., Bonomo S., Caruso A., Di Stefano A., Di Stefano E., Iaccarino S., **Lirer F.**, Mazzei R., Salvatorini G., Sprovieri R. (2002). High resolution calcareous plankton biostratigraphy of the Serravallian succession of the Tremiti Islands (Italy). *Rivista Italiana di Paleontologia e Stratigrafia*, vol. 108, 257- 273, Milano. Citations (23), IF (0,531), IFmedio (0,451).
  4. Sprovieri R., Bonomo S., Caruso A., Di Stefano A., Di Stefano E., Foresi L.M., Iaccarino S., **Lirer F.**, Mazzei R., Salvatorini G. (2002). An Integrated calcareous plankton biostratigraphic scheme and biochronology of the Mediterranean Middle Miocene. *Rivista Italiana di Paleontologia e Stratigrafia*, vol. 108, 337-353, Milano. Citations (74), IF (0,531), IFmedio (0,451).
  5. **Lirer F.**, Caruso A., Foresi L. M., Sprovieri M., Bonomo S., Di Stefano A., Iaccarino S., G. Salvatorini, Sprovieri R., Mazzola S., (2002). Astrochronological calibration of the upper Serravallian/lower Tortonian sedimentary sequence at Tremiti Islands (Adriatic Sea, southern Italy). *Rivista Italiana di Paleontologia e Stratigrafia*, vol.108,241-256, Milano. Citations (37), IF (0,531), IFmedio (0,451).
  6. **Lirer F.**, Persico D., & Vigorito M., (2005). Calcareous plankton biostratigraphy and age of the Middle Miocene deposits of Longano Formation (Eastern Matese Mountains, Southern Apennines). *Rivista Italiana di Paleontologia e Stratigrafia*, vol. 111 (1), 91-108, Milano. Citations (11), IF (0,569), IFmedio (0,510).
  7. **Lirer F.** and Iaccarino S., (2005). Integrated Stratigraphy (Cyclostratigraphy and Biochronology) of late Middle Miocene deposits in the Mediterranean area and comparison with the North and Equatorial Atlantic Oceans: synthesis of the major results. *Terranova*, 17, 338-349. DOI: 10.1111/J.1365-3121.2005.00619.X. Citations (16), IF (1,739), IFmedio (1,550).
  8. Ferraro L., Sprovieri M., Alberico I., **Lirer F.**, Prevedello L. and Marsella E. (2006). Benthic foraminifera and heavy metals distribution: a case study from the Naples Harbour (Tyrrhenian Sea, Southern Italy). *Environmental Pollution*, 142 (2), 274-287. DOI: 10.1016/J.ENVPOL.2005.10.026. Citations (103), IF (2,769), IFmedio (1,752).
  9. Sprovieri M., Coccioni R., **Lirer F.**, Pelosi N., and Lozar F. (2006). Orbital tuning of a Lower Cretaceous composite record (Maiolica Formation - Central Italy). *Paleoceanography*, 21, 1-19. DOI: 10.1029/2005PA001224. Citations (77), IF (3,018), IFmedio (3,324).
  10. **Lirer F.**, Cascella A., Cesarano M., Casciello E., Pappone G. (2007). Micropaleontological study on the Miocene Calcareous turbidite deposits of Faeto and Tuffillo Formations (eastern sector of the Southern Apennine chain). *Rivista Italiana di Paleontologia e Stratigrafia*, 113, v2, pag. 269-286, Milano. Citations (9), IF (0,483), IFmedio (0,505).
  11. Cita M. B., Capraro L., Ciaranfi N., Di Stefano E., **Lirer F.**, Maiorano P., Marino M., Raffi I., Rio D., Sprovieri R., Stefanelli S., Vai G. B., (2008). The Calabrian Stage redefined. *Episodes*, 31, n°4, 408-418, <https://doi.org/10.18814/epiugs/2008/v31i4/006>. Citations (38), IF (1,870), IFmedio (1,054).
  12. Aziz H. A., Di Stefano A., Foresi L. M., Hilgen F.J., Iaccarino S. M., Kuiper K.F., **Lirer F.**, Salvatorini G. and Turco E. (2008). Integrated stratigraphy and <sup>40</sup>Ar/<sup>39</sup>Ar chronology of early Middle Miocene sediments from DSDP Leg 42A, Site 372 (western Mediterranean). *Palaeogeography, Palaeoclimatology, Palaeoecology*, 257, 123–138. DOI: 10.1016/J.PALAEO.2007.09.013. Citations (70), IF (2,405), IFmedio (1,709).
  13. Maiorano P., Aiello G., Barra D., Di Leo P., Joannin S., **Lirer F.**, Marino M., Pappalardo A., Capotondi L., Ciaranfi N., Stefanelli S. (2008) Geochemical, mineralogical and micropaleontological proxies in sapropel 19 (i-cycle 90): evidence from the Montalbano Jonico land section (Southern Italy). *Palaeogeography, Palaeoclimatology, Palaeoecology*, 257, 308–334. DOI: 10.1016/J.PALAEO.2007.10.025. Citations (20), IF (2,405), IFmedio (1,709).
  14. Di Stefano A., Foresi L. M., **Lirer F.**, Iaccarino S. M., Turco E., Amore F. O., Mazzei R., Morabito S., Salvatorini G. & Abdul Aziz H., (2008). Calcareous plankton high resolution bio-magnetostratigraphy for the Langhian of the Mediterranean area. *Rivista Italiana di Paleontologia e Stratigrafia*, 114, v1, pag. 51-76, Milano. DOI: 10.13130/2039-4942/6369. Citations (70), IF (0,766), IFmedio (0,531).
  15. Coccioni R., Marsili A., Montanari A., Bellanca A., Neri R., Bice D.M., Brinkhuis H., Church N., Macalady A., A. Mcdaniel, Deino A., **Lirer F.**, Sprovieri M., Maiorano P., Monechi S., Nini C., Nocchi M., Pross J., Rochette P., Sagnotti L., Tateo F., Touchard Y., Van Simaey S.& Williams G.L., (2008). Integrated stratigraphy of the Oligocene pelagic sequence in the Umbria- Marche basin (north-

- eastern Apennines, Italy): A potential Global Stratotype Section and Point (GSSP) for the Rupelian/Chattian boundary. *Geological Society of America Bulletin*, v. 120, 3/4, 487–511. DOI: 10.1130/B25988.1. Citations (52), IF (3,032), IFmedio (2,473).
16. Sprovieri M., Ribera D'alcalà M., Salvagio Manta D., Bellanca A., Neri R., **Lirer F.**, Taberner Hernandez C., Jose Pueyo J., and Sammartino S. (2008). Ba/Ca evolution in water masses of the Mediterranean late Neogene. *Paleoceanography* v.23, 1-17. DOI: 10.1029/2007PA001469. Citations (15), IF (3,626), IFmedio (3.355).
  17. Marino M., Maiorano P., **Lirer F.**, (2008). Changes in calcareous nannofossil assemblages during the Mid-Pleistocene Revolution. *Marine Micropaleontology*, 257, 70-90. DOI: 10.1016/J.MARMICRO.2007.11.010. Citations (31), IF (1,954), IFmedio (1,705).
  18. Iaccarino S. M., Bertini A., Di Stefano A., Ferraro L., Gennari R., Grossi F., **Lirer F.**, Manzi V., Menichetti E., Ricci Lucchi M., Taviani M., Sturiale G., Angeletti L., (2008). The Trave section (Monte dei Corvi, Ancona, Central Italy): an integrated paleontological study of the Messinian deposits. *Stratigraphy*, vol. 5, pag. 283-308. Citations (42), IF (acquisito nel 2009), IFmedio (non calcolabile).
  19. **Lirer F.**, Harzhauser M., Pelosi N., Piller W.E., Schmid H.P., Sprovieri M., (2009). Astronomically forced teleconnection between Paratethyan and Mediterranean sediments during the Middle and Late Miocene. *Palaeogeography, Palaeoclimatology, Palaeoecology* 275, p. 1–13. DOI: 10.1016/J.PALAEO.2009.01.006. Citations (53), IF (2,646), IFmedio (1,781).
  20. Budillon F., **Lirer F.**, Iorio M., Macrì P., Sagnotti L., Vallefucio M., Ferraro L., Innangi S., Sahabi M., Tonielli R., (2009). Integrated stratigraphic reconstruction for the last 80 kyr in a deep sector of the Sardinia Channel (Western Mediterranean). *Deep - Sea Research II*, 56, 725–737. DOI: 10.1016/J.DSR2.2008.07.026. Citations (14), IF (1,965), IFmedio (1,216).
  21. Marino M, Maiorano P, **Lirer F**, Pelosi N, (2009). Response of calcareous nannofossil assemblages to paleoenvironmental changes through the mid-Pleistocene revolution at Site 1090 (Southern Ocean). *Palaeogeography, Palaeoclimatology, Palaeoecology*, 280- 333–349. DOI: 10.1016/J.PALAEO.2009.06.019. Citations (23), IF (2,646), IFmedio (1,781).
  22. Verducci M., Foresi L. M., Scott G. H., Sprovieri M., **Lirer F.**, Pelosi N., (2009). The Middle Miocene Climatic Transition in the Southern Ocean: evidence of paleoclimatic and hydrographic changes at Kerguelen Plateau from planktonic foraminifers and stable isotopes. *Palaeogeography, Palaeoclimatology, Palaeoecology*, 280, 371-386. DOI: 10.1016/J.PALAEO.2009.06.024. Citations (25), IF (2,646), IFmedio (1,781).
  23. Hohenegger J, Rögl F, Ćorić S, Pervesler P, **Lirer F**, Roetzel R, Scholger R & Stingl K, (2009). The Styrian Basin: a key to the Middle Miocene (Badenian/Langhian) Central Paratethys transgressions. *Austrian Journal of Earth Sciences*, v°102, 102-132. Citations (59), IF (acquisito nel 2010), IFmedio (non calcolabile).
  24. Maiorano P, Capotondi L, Ciaranfi N, Girone A, **Lirer F**, Marino M, Pelosi N, Petrosino P, and Piscitelli A (2010). Vrica-Crotone and Montalbano Jonico sections: a potential unit-stratotype of the Calabrian Stage. *Episodes*, vol. 33, p. 218-233, ISSN: 0705-3797, <https://doi.org/10.18814/epiiugs/2010/v33i4/001>. Citations (26), IF (2,041), IFmedio (1,201).
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  80. Checa H., Margaritelli G., Pena L.D., Frigola J., Cacho I., Rettori R. and **Lirer F.**, (2020). High resolution paleo-environmental changes during the Sapropel 1 in the North Ionian Sea, Central Mediterranean. *The Holocene*, DOI: 10.1177/0959683620941095. Citations (1), IF (2,353), IFmedio (2,327).
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  82. Margaritelli G., Cacho I., Català, A., Barra M., Bellucci L.G., Lubritto C., Rettori R., **Lirer F.**, (2020). Persistent warm Mediterranean surface waters during the Roman period. *Scientific Reports*, 10, <https://doi.org/10.1038/s41598-020-67281-2>. Citations (3), IF (3,998), IFmedio (4,4).

#### Part XI– other Publications without IF and reported in Scopus database

1. **Lirer F.**, (2003). Integrated Stratigraphy (Cyclostratigraphy and Biochronology) of Middle Miocene deposits in the Mediterranean Area and comparison with Atlantic Ocean. *Acta Naturalia "Ateneo Parmense"*, vol. 39, pag. 117-121. Citations (1).
2. **Lirer F.** & Iaccarino S. (2008). Il futuro e lo sviluppo della Time Scale del Neogene: un breve riassunto. *Italian Journal of Quaternary Science*, 21(1A), 17-22. (Citations 0).
3. Ciaranfi N., **Lirer F.**, Maiorano P., Marino M. & Stefanelli S. (2008) - Il piano Ioniano del Quaternario mediterraneo. *Italian Journal of Quaternary Science*, 21(1A), 29-34. Citations (0).
4. Ciaranfi N., Di Stefano E., **Lirer F.**, Maiorano P., Marino M., Rio D., Sprovieri R., Stefanelli S. & Vai G. (2008) – Il piano Calabriano. *Italian Journal of Quaternary Science*, 21(1A), 22-28. Citations (0).
5. Cesarano M, Pappone G, Amato V, Aucelli P, Baranello S, Cascella A, Casciello E, Ferrarini F, **Lirer F.**, Roskopf C., (2011). Stratigrafia ed assetto geometrico dell'Unità del Sannio nel settore settentrionale dei monti del Matese. *Rendiconti Online della Società Geologica Italiana*, Volume, 12, 35-38. Citations (14).
6. **Lirer F.**, Afferri A., Bergami C., Capotondi L., De Lange G., Ferraro L., Foresi L.M., Gironi A., Lourens L., Vallefucio M. & Verducci M., (2011). Variability in the Ionian Sea (core kc01b) during MIS 9-13 evidenced by planktonic foraminiferal assemblages. *Il Quaternario Italian Journal of Quaternary Sciences*, 24, pp. 211. Citations (1).
7. Giannandrea P., Loiacono F., Maiorano P., **Lirer F.**, Puglisi D., (2012). Unconformity-bounded stratigraphic units approach to a siliciclastic turbidite basin: the eastern part of Miocene Gorgoglione Flysch (Southern Apennines, Italy). *Rendiconti Online della Società Geologica Italiana*, Vol. 21 (2012), pp. 902-904, 1 fig., 1 tab. Citations (0).
8. Ferraro L., Giordano L., Bonomo S., Cascella A., Di Martino G., Innangi S., Gherardi S., Tamburrino S., Alberico I., Budillon F., Di Fiore V., Punzo M., Tarallo D., Anzalone E., Capodanno M., Cavuoto G, Evangelista L., Ferraro R., Iavarone M., Iengo A., **Lirer F.**, Marsella E., Migliaccio R., Molisso F., Pelosi N., Rumolo P., Scotto di Vettimo P., Tonielli R., Vallefucio M., (2017). Monitoraggio integrato di un'area marino-costiera: la foce del fiume Volturno (Mar Tirreno centrale). *Quaderni di Geofisica*, 146: 1-70. Citations (3).
9. Punzo M., Cavuoto G., Di Fiore V., Tarallo D., Ludeno G., De Rosa R., Cianflone G., Dominici R., Iavarone M., **Lirer F.**, Pelosi N., Giordano L., Natale A., Marsella E., (2017). Application of X-Band Wave Radar for coastal dynamic analysis: case test of Bagnara Calabria (south Tyrrhenian Sea, Italy). IMEKO TC19 Workshop on Metrology for the Sea, *MetroSea 2017: Learning to Measure Sea Health Parameters*, 2017, 2017-October, pp. 186–191. Citations (1)
10. Di Fiore V., **Lirer F.**, Budillon F., Pelosi N., Punzo M., Iavarone M., Scotto di Vettimo, P., (2019). Combined geophysical measurements off the coast of Ischia Island (Southern Tyrrhenian Sea) as a

contribution to the natural hazard assessment. IMEKO TC19 International Workshop on Metrology for the Sea: Learning to Measure Sea Health Parameters, *MetroSea* 2019, 2020, pp. 58–63. Citations (0).

#### **Part XII–peer-reviewed Publications present in Google Scholar database**

11. Iaccarino S., **Lirer F.**, Bonomo S., Caruso A., Di Stefano A., Di Stefano E., Foresi L.M., Mazzei R., Salvatorini G., Sprovieri M., Sprovieri R., Turco E., (2004). Astrochronology of Late Middle Mediterranean sections. In: Cyclostratigraphy: An Essay of Approaches and Case Histories. *SEPM (Society of Sedimentary Geology)*, Special Publication, n°81, p. 27-44. ISSN:1060-071X; ISBN 978-1-56576-108-7. Citations (21) from Google Scholar database
12. **Lirer F.**, Caruso A., Foresi L.M., Iaccarino S. & Iacumin P., (2004). Palaeoclimatic changes in the Serravallian record of the Mediterranean area. In Coccioni R., Galeotti S. & Lirer F. (Eds.) Proceedings of the 1st Italian Meeting on Environmental Micropaleontology. *Grzybowski Foundation Special Publication*, 9: 77-96. ISBN: 83-912385-5-5 (<http://gf.tmsoc.org/publications.html>). Citations (11) from Google Scholar database
13. Ferraro L. & **Lirer F.** (2006). Evidence of morphological deformities in benthic foraminifera from Holocene sediments of Sorrento Peninsula (South Tyrrhenian Sea). In Coccioni R. & Marsili A., (Eds.). Proceedings of the 2<sup>th</sup> and 3<sup>st</sup> Italian Meeting on Environmental Micropaleontology. *Grzybowski Foundation Special Publication*, 11: 45-58. ISBN: 83-912385-7-1 (<http://gf.tmsoc.org/publications.html>). Citations (4) from Google Scholar database
14. Verducci, M., Foresi L. M., Scott G. H., Tiepolo M., Sprovieri M. and **Lirer F.**, (2007). East Antarctic Ice Sheet fluctuations during the Middle Miocene Climatic Transition inferred from faunal and biogeochemical data on planktonic foraminifera (Kerguelen Plateau), in Antarctica: A Keystone in a Changing World – *Online Proceedings* of the 10th ISAES, edited by A. K. Cooper and C. R. Raymond et al., USGS Open-File Report 2007-1047, Short Research Paper 037, 5 p.; doi:10.3133/of2007-1047.srp037. Citations (10) from Google Scholar database
15. **Lirer F.**, and Iaccarino S., (2011). Mediterranean Neogene historical stratotype sections and Global Stratotype Section and Point (GSSP): state of the art. *Annalen des Naturhistorischen Museums in Wien A Mineralogie Petrologie Geologie Palaeontologie Archaeozoologie Anthropologie Praehistorie*, Serie A., 113, 67-144. ISSN: 0255-0091. Citations (14) from Google Scholar database
16. Ribotti A., Bonomo S., Alberico I., **Lirer F.**, Cascella A., Ferraro L., Sorgente R. (2019). I-AMICA coastal hydrological surveys in the eastern Tyrrhenian Sea. SEANOE – Sea scientific open data edition. <https://doi.org/10.17882/70324>. Citations (2) from Google Scholar database

#### **Part XIII– other Publications**

1. Cascella A. and **Lirer F.**, (1998). Upper Miocene pre-terrestrial deposits of the Queglia Unit (Abruzzo, Central Apennines, Italy): Biostratigraphic data. *Atti Soc. Tosc. Sci. Nat.*, Mem. Serie A, 105, 137-149. ISSN 0365-7655.
2. **Lirer F.** (2002). Integrated Stratigraphy (Cyclostratigraphy and Biochronology) of Middle Miocene deposits in the Mediterranean Area and comparison with Atlantic Ocean. P.h.D. Thesis, XIV CICLO, University of Parma, p.1-204
3. Fabbrini A., Foresi L., **Lirer F.**, Pelosi N., (2020). Preliminary cyclostratigraphic results on planktonic foraminifera from IODP-Hole U1406A. *Fossilia*, Volume 2020: 15-17. <https://doi.org/10.32774/FosRepPal.2020.0605>

#### **Part XIV– Foreword of ISI journal Publications (Web of Science database)**

1. Kovac M., Minar J., **Lirer F.**, (2011). Foreword: Earth System Evolution and the Mediterranean area from 23 Ma to the present. *Geologica Carpathica*, 62, 1, 3.
2. Corselli C. D'Argenio B., Di Bitetto M., **Lirer F.**, Pappone G., (2012). Foreword of Land-Sea Interaction: the Case of Sele River, Southern Italy. *Rendiconti Lincei. Scienze Fisiche e Naturali*, 23, 1, pag. 1-2.

#### **Part XV– Dissemination publication and Press release**

1. **Lirer F.**, Sprovieri M., Pelosi N., Ferraro L. (2007). Periodicità sub-millenarie registrate nei sedimenti marini degli ultimi 2000 anni (Tirreno orientale). Special Volume: Clima e Cambiamenti Climatici: le

- attività di ricerca del CNR Consiglio Nazionale delle Ricerche. Ed. (B. Carli et al.) CNR. pag. 209-212.
- Budillon F, **Lirer F.**, Iorio M, Macrì P, Sagnotti L, Vallefucio M, Ferraro L, Innangi S, Di Martino G, Tonielli R (2011). Deep marine record from Sentinelle Valley (Sardinia Channel): integrated stratigraphy of a key site for Western Mediterranean paleoceanographic and geological reconstruction. In: Enrico Brugnoli, Giuseppe Cavarretta, Salvatore Mazzola, Fabio Trincardi, Mariangela Ravaoli, Rosalia Santoleri. *MARINE RESEARCH AT CNR*. vol. Volume DTA/06-2011 – Marine Geology, p. 491-508, Roma: CNR, ISBN/ISSN: ISSN 2239-5172
  - Ferraro L, Alberico I, **Lirer F.**, Budillon F, Vallefucio M (2011). Distribution of Benthic Foraminiferal Assemblages on the Southern Campanian Continental Shelf. In: Enrico Brugnoli, Giuseppe Cavarretta, Salvatore Mazzola, Fabio Trincardi, Mariangela Ravaoli, Rosalia Santoleri. *MARINE RESEARCH AT CNR*. vol. Volume DTA/06-2011 - Marine Geology, p. 645-656, ROMA: Edizioni Servizio Pubblicazioni CNR (Roma), ISBN/ISSN: ISSN 2239-5172
  - Vallefucio M, **Lirer F.**, Ferraro L, Sprovieri M, Capotondi L, Bellucci L, Albertazzi S, Giuliani S, Angelino A, Iorio M, Iavarone M (2011). Environmental changes and human impact in the southern Tyrrhenian Sea during the last 520 years: evidence from a high-resolution foraminiferal record. In: Enrico Brugnoli, Giuseppe Cavarretta, Salvatore Mazzola, Fabio Trincardi, Mariangela Ravaoli, Rosalia Santoleri. *MARINE RESEARCH AT CNR*. vol. DTA/06-2011- Marine Geology, p. 797-808, Roma: CNR, ISBN/ISSN: ISSN 2239-5172
  - Lirer F.** (2018). Salinità: una caratteristica che ha origini lontane. *Almanacco della Scienza del CNR*. Mensile a cura dell'Ufficio stampa del CNR. N°6, 6 giugno 2018. ISSN 2037-4801. [http://www.almanacco.cnr.it/reader/cw\\_usr\\_view\\_articolo.html?id\\_articolo=8681&giornale=8646](http://www.almanacco.cnr.it/reader/cw_usr_view_articolo.html?id_articolo=8681&giornale=8646)
  - Press release at CNR del 06/09/2019 titled “Aridità e asma: uno studio conferma la correlazione” per l’articolo Bonomo S., Ferrante G., Palazzi E., Pelosi N., Lirer F., Viegi G., La Grutta S. (2019). Evidence for a link between the Atlantic Multidecadal Oscillation and annual asthma mortality rates in the US. *Scientific Reports* (Aug 12; 9 (1):11683. doi: 10.1038/s41598-019-48178-1 [www.nature.com/articles/s41598-019-48178-1](http://www.nature.com/articles/s41598-019-48178-1). <https://www.cnr.it/it/comunicato-stampa/8912/aridita-e-asma-uno-studio-conferma-la-correlazione>
  - Press release at Barcelona University titled “Can deep water masses in the Mediterranean cross the Sicily Strait?” per l’articolo: Garcia-Solsona E., Pena L. D., Paredes E., Pérez-Asensio J.N., Quirós-Collazos L., **Lirer F.**, Cacho I., (2020). Rare Earth Elements and Nd isotopes as tracers of modern ocean circulation in the central Mediterranean Sea. *Progress in Oceanography*, 185. <https://doi.org/10.1016/j.pocean.2020.102340> - [https://www.ub.edu/web/ub/en/menu\\_eines/noticies/2020/06/002.html](https://www.ub.edu/web/ub/en/menu_eines/noticies/2020/06/002.html)
  - Press release at Barcelona University titled “The expansion of the Roman Empire coincided with the warmest period in the Mediterranean of the last 2,000 years” per l’articolo: Margaritelli G., Cacho I., Català, A., Barra M., Bellucci L.G., Lubritto C., Rettori R., **Lirer F.**, (2020). Persistent warm Mediterranean surface waters during the Roman period. *Scientific Reports*, 10, <https://doi.org/10.1038/s41598-020-67281-2>, [https://www.ub.edu/web/ub/en/menu\\_eines/noticies/2020/07/016.html?fbclid=IwAR0i5pKgS6iCthU9lQEduMqE4C8tq74pv3P5tHZhK\\_QZEv3Go6xGRtzAL0](https://www.ub.edu/web/ub/en/menu_eines/noticies/2020/07/016.html?fbclid=IwAR0i5pKgS6iCthU9lQEduMqE4C8tq74pv3P5tHZhK_QZEv3Go6xGRtzAL0)
  - Comunicato Stampa presso CNR del 17/07/2020 dal titolo “Impero Romano: temperature marine da record” per l’articolo: Margaritelli G., Cacho I., Català, A., Barra M., Bellucci L.G., Lubritto C., Rettori R., **Lirer F.**, (2020). Persistent warm Mediterranean surface waters during the Roman period. *Scientific Reports*, 10, <https://doi.org/10.1038/s41598-020-67281-2>, <https://www.cnr.it/it/comunicato-stampa/9558/impero-romano-temperature-marine-da-record>
  - 23 comunicati stampa per l’articolo di Margaritelli G., Cacho I., Català, A., Barra M., Bellucci L.G., Lubritto C., Rettori R., Lirer F., (2020). Persistent warm Mediterranean surface waters during the Roman period. *Scientific Reports*, 10, <https://doi.org/10.1038/s41598-020-67281-2>. Di seguito si riporta la lista delle testate giornalistiche: BluePlanetHeart.it; Fanpage.it; NONSOLONAUTICA.IT; 9colonne.it; 9colonne.it; Aise.it; Altoadige.it; Ansa.it; Ansamed.info; Corrierequotidiano.it; Dazebaonews.it; Gds.it; Giornaletrentino.it; Meteoweb.eu; Quasimezzogiorno.org; Ragusaoggi.it; Rainews.it; Rivistamicron.it; Romadailynews.it; Tg24.sky.it; Ulixesnews.it; Vglobale.it; Zarabaza.it (20 dated 17/07/2020 and 3 dated 18/07/2020. To control, document available).
  - Intervista alla trasmissione Linea Blu andata in onda su Rai 1 il 22/08/2020 (<http://www.irpi.cnr.it/outreach/linea-blu-eolie-e-ricerche-sul-clima-del-mediterraneo/>), per

l'articolo Margaritelli G., Cacho I., Català, A., Barra M., Bellucci L.G., Lubritto C., Rettori R., **Lirer F.**, (2020). Persistent warm Mediterranean surface waters during the Roman period. *Scientific Reports*, 10, <https://doi.org/10.1038/s41598-020-67281-2>

#### **Part XVI– Proceeding of Congresses and Extended abstracts**

- 1) **Lirer F.**, Sprovieri M., Pelosi N., Ferraro L., (2008). Clues of solar forcing from a 2000 years long sedimentary record of the eastern Tyrrhenian margin. *Proceedings of Italian Association of Oceanology and Limnology*, Volume 19, part II, pag. 257-272- AIOL del XVII Congresso di Napoli 3-7 luglio 2006.
- 2) Antonarakou A., Drinia H., **Lirer F.**, Foresi L.M., Kontakiotis G., (2008). Foraminiferal Assemblages and Paleoclimatic changes in the Langhian record of the Ionian Sea. EMMM'2008 5<sup>th</sup> International Conference "Environmental Micropaleontology, Microbiology and Meiobenthology" University of Madras, India, February 17-25, 2008. [http://users.uoa.gr/~cntrinia/CV%20pdf/78\\_Antonarakou%20et%20al.%202008.pdf](http://users.uoa.gr/~cntrinia/CV%20pdf/78_Antonarakou%20et%20al.%202008.pdf).
- 3) Sprovieri M., **Lirer F.**, Ferraro L., Vallefucio M., Capotondi L., Cascella A., Petrosino P., Insinga D.D., Pelosi N., Tamburrino S., Lubritto C., (2011). An Eastern Tyrrhenian marine sedimentary archive of high-resolution late Quaternary climate changes. *Accademia Nazionale dei Lincei – XIX Giornata dell' Ambiente. Clima del Bacino del Mediterraneo negli ultimi 12 mila anni, in ricordo di Ardito Desio nel decennale della morte*, 43-46.
- 4) Di Rita F., Margaritelli G., Vallefucio M., Capotondi L., Bellucci L.G., Insinga D.D., Petrosino P., Bonomo S., Cacho I., Cascella A., Ferraro L., Florindo F., Lubritto C., Lurcock P.C., Magri D., Pelosi N., Rettori R., **Lirer F.**, (2016). Late-Holocene palaeoenvironmental changes from the Gulf of Gaeta. International Expert Meeting: Distal impacts of major volcanic eruptions on pre-industrial societies in the Mediterranean. Extended abstract 49-53. Osservatorio Vesuviano Ercolano (Italy), 5-7 June 2016.

#### **Part XVII– Books**

1. Iaccarino S., Premoli Silva I., Biolzi M., Foresi L.M., **Lirer F.**, Petrizzo M.R. (2005). Practical manual of Oligocene to Middle Miocene planktonic foraminifera. International School on Planktonic Foraminifera, (Oligocene to Middle Miocene Planktonic Foraminifera) Università di Perugia Press. 1-124. Citations (20) from Google Scholar database. (To control document available)
2. Iaccarino S., Premoli Silva I., Biolzi M., Foresi L.M., **Lirer F.**, Turco E. (2007). Practical manual of Neogene planktonic foraminifera. International School on Planktonic Foraminifera, (Neogene Planktonic Foraminifera). Università di Perugia Press. 1-180. Citations (99) from Google Scholar database. (To control document available)
3. Bank A., Pavelić D., Mandić O., Kovačić M., **Lirer F.**, (2020). Pleistocene climate change in Central Europe", 21 pages. Chapter in "Pleistocene Archaeology - Migration, Technology, and Adaptation" book, ISBN 978-1-83880-358-2. Open Access book, IntechOpen, edited by Ph.D. Rintaro Ono. Citations (1) from Google Scholar database. (To control document available)

#### **Part XVIII– Geological maps**

- 1) Pappone G., Ruberti D., P.P.C. Aucelli, R. Graziano, Bravi S., **Lirer F.**, Cascella A., Vecchio E., Petrosino P., Russo Ermolli E., Cesarano M., Roskopf C., Amato V., Casciella E., Ciarcia S., Ferrarini F., Pitzianti P., Putignano M.L., Randisi A., Ravera F. (2011). CARTA GEOLOGICA D'ITALIA - Foglio 405 - Campobasso, scala 1:50.000. Servizio Geologico d'Italia (ISPRA). [http://www.isprambiente.gov.it/Media/carg/405\\_CAMPOBASSO/Foglio.html](http://www.isprambiente.gov.it/Media/carg/405_CAMPOBASSO/Foglio.html);  
ENTE REALIZZATORE: Regione Molise  
RESPONSABILE DEL PROGETTO CARG PER LA REGIONE MOLISE: S. Baranello  
COORDINATORE SCIENTIFICO: G. Pappone  
DIRETTORI DEL RILEVAMENTO: D. Ruberti, P. P. C. Aucelli, R. Graziano  
RILEVATORI: V. Amato, A. Cascella, E. Casciello, M. Cesarano, S. Ciarcia, F. Ferrarini, R. Graziano, **F. Lirer**, P. Pitzianti, M. L. Putignano, A. Randisi, F. Ravera  
ANALISTI: D. Ruberti, E. Vecchio, **F. Lirer**, A. Cascella, S. Bravi, P. Petrosino, E. Ermolli, M. Cesarano, C. Roskopf  
SERVIZIO GEOLOGICO D'ITALIA - IN ATTESA DI STAMPA
- 2) Giulivo I. Monti L., Carannante G., Pappone G., Cesarano M., Putignano M.L. Santangelo N., Bravi S., Romano R., **Lirer F.**, Cascella A., Casciello E., Aucelli P.P.C., Boiano U, Caiazzo C., Sirna M.,

- Santo A., Tescione M., Vigorito M. (2011). CARTA GEOLOGICA REGIONALE - Caiazzo - 431 NO, scala 1:25.000. Progetto CARG - Regione Campania, cartografia al 25.000;  
ENTE REALIZZATORE: Regione Campania  
RESPONSABILE DEL PROGETTO CARG PER LA REGIONE CAMPANIA: L. Monti  
RESPONSABILE DEL PROGETTO CARG FINO AL 2004: D. Stanzione  
COORDINATORE SCIENTIFICO: G. Carannante  
DIRETTORE DEL RILEVAMENTO: P. Pappone  
RILEVATORI: U. Boiano, C. Caiazzo, E. Casciello, M. Cesarano, G. Pappone, M. L. Putignano, M. Sirna, A. Santo, M. Tescione, M. Vigorito  
CONSULENZA PER IL QUATERNARIO: N. Santangelo  
ANALISTI: Biostratigrafia: S. Bravi, R. Romano, **F. Lirer**, A. Cascella - Analisi ed elaborazione dei dati strutturali: E. Casciello, M. Cesarano - Analisi dei fenomeni franosi: P.P.C. Aucelli  
SERVIZIO GEOLOGICO D'ITALIA - IN ATTESA DI STAMPA
- 3) Giulivo I. Monti L., Carannante G., Pappone G., Cesarano M., Putignano M.L. Santangelo N., Bravi S., Romano R., **Lirer F.**, Cascella A., Casciello E., Aucelli P.P.C., Boiano U, Caiazzo C., Sirna M., Santo A., Tescione M., Vigorito M. (2011). CARTA GEOLOGICA REGIONALE - Caserta Est - 431 SO, scala 1:25.000. Progetto CARG - Regione Campania, cartografia al 25.000.  
<http://www.isprambiente.gov.it/Media/carg/campania.html>;  
ENTE REALIZZATORE: Regione Campania  
RESPONSABILE DEL PROGETTO CARG PER LA REGIONE CAMPANIA: L. Monti  
RESPONSABILE DEL PROGETTO CARG FINO AL 2004: D. Stanzione  
COORDINATORE SCIENTIFICO: G. Carannante  
DIRETTORE DEL RILEVAMENTO: P. Pappone  
RILEVATORI: U. Boiano, C. Caiazzo, E. Casciello, M. Cesarano, G. Pappone, M. L. Putignano, M. Sirna, A. Santo, M. Tescione, M. Vigorito  
CONSULENZA PER IL QUATERNARIO: N. Santangelo  
ANALISTI: Biostratigrafia: S. Bravi, R. Romano, **F. Lirer**, A. Cascella - Analisi ed elaborazione dei dati strutturali: E. Casciello, M. Cesarano - Analisi dei fenomeni franosi: P.P.C. Aucelli  
SERVIZIO GEOLOGICO D'ITALIA - IN ATTESA DI STAMPA
- 4) Giulivo I. Monti L., Carannante G., Pappone G., Cesarano M., Putignano M.L. Santangelo N., Bravi S., Romano R., **Lirer F.**, Cascella A., Casciello E., Aucelli P.P.C., Boiano U, Caiazzo C., Sirna M., Santo A., Tescione M., Vigorito M. (2011). CARTA GEOLOGICA REGIONALE - Montesarchio - 431 SE, scala 1:25.000. Progetto CARG - Regione Campania, cartografia al 25.000;  
ENTE REALIZZATORE: Regione Campania  
RESPONSABILE DEL PROGETTO CARG PER LA REGIONE CAMPANIA: L. Monti  
RESPONSABILE DEL PROGETTO CARG FINO AL 2004: D. Stanzione  
COORDINATORE SCIENTIFICO: G. Carannante  
DIRETTORE DEL RILEVAMENTO: P. Pappone  
RILEVATORI: U. Boiano, C. Caiazzo, E. Casciello, M. Cesarano, G. Pappone, M. L. Putignano, M. Sirna, A. Santo, M. Tescione, M. Vigorito  
CONSULENZA PER IL QUATERNARIO: N. Santangelo  
ANALISTI: Biostratigrafia: S. Bravi, R. Romano, **F. Lirer**, A. Cascella - Analisi ed elaborazione dei dati strutturali: E. Casciello, M. Cesarano - Analisi dei fenomeni franosi: P.P.C. Aucelli  
SERVIZIO GEOLOGICO D'ITALIA - IN ATTESA DI STAMPA
- 5) Giulivo I. Monti L., Carannante G., Pappone G., Cesarano M., Putignano M.L. Santangelo N., Bravi S., Romano R., **Lirer F.**, Cascella A., Casciello E., Aucelli P.P.C., Boiano U, Caiazzo C., Sirna M., Santo A., Tescione M., Vigorito M. (2011). CARTA GEOLOGICA REGIONALE - Solopaca - 431 NE, scala 1:25.000. Progetto CARG - Regione Campania, cartografia al 25.000;  
ENTE REALIZZATORE: Regione Campania  
RESPONSABILE DEL PROGETTO CARG PER LA REGIONE CAMPANIA: L. Monti  
RESPONSABILE DEL PROGETTO CARG FINO AL 2004: D. Stanzione  
COORDINATORE SCIENTIFICO: G. Carannante  
DIRETTORE DEL RILEVAMENTO: P. Pappone  
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ANALISTI: Biostratigrafia: S. Bravi, R. Romano, **F. Lirer**, A. Cascella - Analisi ed elaborazione dei dati strutturali: E. Casciello, M. Cesarano - Analisi dei fenomeni franosi: P.P.C. Aucelli  
SERVIZIO GEOLOGICO D'ITALIA - IN ATTESA DI STAMPA

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- 1) Provenzale A., Montagna P., Capotondi L., Giaccio B., **Lirer F.**, Monegato G., Palazzi E., Pasquero C., Ravazzi C., Stenni B., Brunetti M., Braico P., Bellucci R., (2019). La dinamica del clima nell'ultimo ciclo glaciale-interglaciale. In: La dinamica del clima nell'ultimo ciclo glaciale-interglaciale, Volume contributi Workshop del CNR 17-18 Giugno 2019, Bologna. SOLAR CNR code: 9497OT2019 <http://eprints.bice.rm.cnr.it/id/eprint/19020>
- 2) Ferraro L., Alberico I., Angelino A., Anzalone E., Bonomo S., Budillon F., Cascella A., Cavuoto G., Capodanno M., Di Fiore V., Di Martino G., Evangelista L., Ferraro R., Gherardi S., Giordano L., Iavarone M., Iengo A., Innangi S., **Lirer F.**, Marsella E., Migliaccio R., Molisso F., Pelosi N., Punzo M., Rumolo P., Scotto di Vettimo P., Tamburrino S., Tarallo D., Tonielli R., Vallefucio M. (2016). Studio integrato di un'area marino-costiera: la foce del fiume Volturno. Technical Report. Istituto per l'Ambiente Marino Costiero (IAMC), Napoli. (Unpublished). (code: 7029BC2016-<http://eprints.bice.rm.cnr.it/12009/>)
- 3) Punzo M., Tarallo D., Di Fiore V., Cavuoto G., Pelosi N., **Lirer F.**, Marsella E., Baculo R., Iavarone M., Scotto di Vettimo P., Cianflone G., Dominici R., De Rosa R. (2016). Shallow-seismic site characterizations of near-surface geology at terme Caronte area, Lamezia Terme. (Rapporto Tecnico). CNR SOLAR (code: 6857TR2016 - <http://eprints.bice.rm.cnr.it/id/eprint/11921>).
- 4) Punzo M., Lanciano C., Tarallo D., Bianco F., Cavuoto G., De Rosa R., Di Fiore V., **Lirer F.**, Pelosi N., Cianflone G., Dominici R., Iavarone M., Baculo R., Scotto di Vettimo P., Musella S., Ludeno G., Natale A., Iavarone R., Marsella E. (2015). Wave-Field Measurements Using Marine X-Band Radar: case study of Bagnara Calabria (south Tyrrhenian Sea, Italy). (Rapporto Tecnico). CNR SOLAR (code: 6709TR2015 - <http://eprints.bice.rm.cnr.it/id/eprint/11692>).
- 5) Punzo M., Lanciano C., Tarallo D., Bianco F., Cavuoto G., De Rosa R., Di Fiore V., **Lirer F.**, Pelosi N., Cianflone G., Dominici R., Iavarone M., Baculo R., Scotto di Vettimo P., Musella S., Ludeno G., Natale A., Iavarone R., Marsella E. (2015). Radar Ondametrico in Banda X per l'analisi di campi d'onda: caso studio di Monasterace Marina (Mar Jonio, Italia). (Rapporto Tecnico). CNR SOLAR (code: 6710TR2015 - <http://eprints.bice.rm.cnr.it/id/eprint/11693>).
- 6) Bonomo S., **Lirer F.**, Ferraro L., Albano L., Alberico I., Anzalone E., Barra R., Cascella A., Castellano M., Di Stefano E., D'Orlando C., Ferraro R., Giordano L., Lurcock P.C., Margaritelli G., Marsella E., Pelosi N., Punzo M., Vallefucio M., Tarallo D., Zarccone G. (2014). Core description collected during Oceanographic Survey NextData2013 (12 – 19 September 2013). Technical Report. Istituto Ambiente Marino Costiero di Napoli. (Unpublished). (code: 4517TR2014 - <http://eprints.bice.rm.cnr.it/8143>)
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- 8) **Lirer F.**, Vallefucio M., Albertazzi S., Anzalone E., Bonomo S., Capotondi L., Cascella A., De Michelis P., Di Rita F., Ferraro L., Florindo F., Giuliani S., Insinga D., Lurcock P.C., Magri G., Margaritelli G., Marra F., Marsella E., Meloni A., Montagna P., Pelosi N., Petrosino P., Sorgato S., Venuti A., Winkler A., Bellucci L., (2014). “Attività di ricerca e risultati preliminari del Progetto NEXTDATA”. Project Report. IAMC-CNR, Napoli. (<http://eprints.bice.rm.cnr.it/id/eprint/8623>).
- 9) Bonomo S., **Lirer F.**, Ferraro L., Albano L., Alberico I., Anzalone E., Barra R., Cappelli C., Cascella A., Castellano M., Cavallina C., Di Stefano E., D'Orlando C., Ferraro R., Francesconi M., Gazzola R., Giordano L., Lurcock P.C., Margaritelli G., Marsella E., Pelosi N., Punzo M., Vallefucio M., Tarallo D., Zarccone G. (2013). Final Report of the Oceanographic Survey NextData2013. Project NEXTDATA WP-1.5: Paleoclimatic Data from Marine Sediments. Technical Report. Istituto Ambiente Marino Costiero di Napoli. (Unpublished). (code: 3691TR2013 - <http://eprints.bice.rm.cnr.it/7177>)

- 10) Ferraro L., Bonomo S., **Lirer F.**, Albano L., Anzalone E., Bellucci L., Di Martino G., Innangi S., Lurcock P.C., Misuraca M., Migliaccio R., Pelosi N., Punzo M., Tarallo D., Torcasio C., Vallefucio M., Zizzo E., Alberico I., Barra R., Di Fiore V., Ferraro R., Giordano L., Marsella E., (2013). “Rapporto di fine Campagna. Campagna Oceanografica I-AMICA\_2013\_01, Progetto PON I-AMICA OR.4.4, Foce del Fiume Volturno (Golfo di Gaeta, Mar Tirreno)”. Technical Report. IAMC-CNR di Napoli. CNR SOLAR, (identification code: 3713TR2013 - <http://eprints.bice.rm.cnr.it/7220/>).
- 11) Di Fiore V., Cavuoto G., Ferraro L., Giordano L., **Lirer F.**, Marsella E., Nicla Pelosi N., Punzo M., Tarallo D., Vallefucio M., Di Gregorio C., Michele Iavarone M., Scotto di Vettimo P., Losanno S., Ferraro R., Gargiulo V., Sclafani P., (2013). “Prospezioni sismiche, geoelettriche ed elettomagnetiche ad alta risoluzione in prossimità della foce del Fiume Volturno”. Technical Report. IAMC-CNR di Napoli. CNR SOLAR, (identification code: 2632TR2013 - <http://eprints.bice.rm.cnr.it/5405/>).
- 12) Di Fiore V., Aiello G., Alberico I., **Lirer F.**, Pelosi N., Punzo M., Tarallo D., Giordano L., Buonocunto F.P., Angelino A., Iavarone M., Scotto di Vettimo P., Mazzola S. Prospezione sismica terra-mare: l'esempio di Procida e Ventotene. (Rapporto Tecnico, 2013). CNR SOLAR (code: 2215TR2013 - <http://eprints.bice.rm.cnr.it/4599>)
- 13) Ferraro L., **Lirer F.**, Bonomo S., Cascella A., Vallefucio M., Gherardi S., Tamburrino S., Alberico I., Anzalone E., Barra R., Capodanno M., Di Fiore V., Ferraro R., Giordano L., Iavarone M., Marsella E., Migliaccio R., Molisso F., Punzo P., Rumolo P., Scotto di Vettimo P., Tarallo D., (2013). “Risultati preliminari delle campagne oceanografiche I-AMICA\_2012\_01 e I-AMICA\_2012\_02 Foce del Fiume Volturno, Golfo di Gaeta Mar Tirreno centrale”. Technical Report. IAMC-CNR di Napoli. CNR SOLAR, (identification code: 2624TR2013 - <http://eprints.bice.rm.cnr.it/5265/>).
- 14) Punzo M., Di Fiore V., Ferraro L., Iavarone M., **Lirer F.**, Marsella E., Pelosi N., Scotto di Vettimo P., Tarallo D., Vallefucio M., Alberico I., Pietropaolo A. (2012). Indagine di sismica marina multicanale a riflessione ad alta risoluzione in prossimità della foce del Fiume Volturno (Golfo di Gaeta). (Rapporto Tecnico). CNR SOLAR (code: 2004TR2013- <http://eprints.bice.rm.cnr.it/4421>).
- 15) Vallefucio M., Gherardi S., Rumolo P., Tamburrino S., Anzalone E., Capodanno M., Capuozzo B., De Martino R., Di Gregorio C., Esposito G., Ferraro L., Ferraro R., Iavarone M., **Lirer F.**, Marsella E., Molisso F., Musella S., Paolillo A., Sprovieri M., (2012). “Caratterizzazione di sedimenti marini di un'area portuale: Il Porto commerciale di Salerno”. (prot. n.0004396 del 20/07/2012). Rapporto tecnico. IAMC-CNR di Napoli. CNR SOLAR, (identification code: 1865TR2012 CDD (895) 500, ID 4249 (2012) - <http://eprints.bice.rm.cnr.it/id/eprint/4249>).
- 16) Marsella E., Sprovieri M., Bellonia A., Bianchi B., Buonocunto P., Canzanella E., Capone P., d'Isanto C., De Rosa A., Feo M.L., Ferraro L., Ferraro R., Gherardi S., Giordano L., Iavarone M., **Lirer F.**, Musella S., Passaro S., Pelosi N., Prevedello L., Rinaldini F., Ruggieri S., Rumolo P., Vallefucio M., Salvagio Manta D., Sammartino S., Tamburrino S. e Alberico I., (2005). Caratterizzazione geochimica dei sedimenti del porto di Napoli. Rapporto Tecnico, IAMC-CNR di Napoli, 2005. CNR SOLAR, (identification code: 800TR2009 (2009) - <http://eprints.bice.rm.cnr.it/1188/>).

## **Part XX– Technical Reports for Oil Company deposited at Department of Earth Science of Pisa University**

- 1) Patacca E., Scandone P., Bellatalla M., Cascella A., **Lirer F.**, Pantani P., Ruberti S., (1996). Analisi stratigrafica del pozzo Vallauria 1bis. Rapporto finale. EDISON GAS - DIPARTIMENTO DI SCIENZE DELLA TERRA PISA. Dip. di Scienze della Terra, dell'Università di Pisa nella persona giuridica del Prof. Paolo Scandone e della Prof.ssa Etta Patacca;
- 2) Cascella A., **Lirer F.**, Patacca E., Scandone P., 1996. Analysis of rock-samples collected during the 1990 and 1992 uphole surveys in the Torrente Sauro permit. Final Report. LASMO - DIPARTIMENTO DI SCIENZE DELLA TERRA PISA. Dip. di Scienze della Terra, dell'Università di Pisa nella persona giuridica del Prof. Paolo Scandone e della Prof.ssa Etta Patacca;
- 3) Patacca E., Scandone P., Cascella A., Danese E., **Lirer F.**, Pagliaro S., 1996. Geological map of Monti della Maddalena in the Sant'Arsenio Permit (1:25000) and geological cross sections. Final Report. TEXACO - DIPARTIMENTO DI SCIENZE DELLA TERRA PISA. Dip. di Scienze della Terra, dell'Università di Pisa nella persona giuridica del Prof. Paolo Scandone e della Prof.ssa Etta Patacca;
- 4) Patacca E., Cascella A., **Lirer F.**, Scandone P., Meletti C., Pantani P., Ruberti S., 1997. Gorgoglione 1 well (Potenza – Italy). Stratigraphic analysis of the allochthonous sheet and Apulia Pliocene deposits. Final Report. LASMO - DIPARTIMENTO DI SCIENZE DELLA TERRA PISA. Dip. di Scienze

- della Terra, dell'Università di Pisa nella persona giuridica del Prof. Paolo Scandone e della Prof.ssa Etta Patacca;
- 5) Patacca E., Scandone P., Cascella A., **Lirer F.**, Meletti C., Pantani P., Ruberti S., 1998. Tempa d'Emma 1 well (Potenza – Italy). Stratigraphic analysis of the allochthonous sheet and Apulia Platform (30-6200 m). Preliminary Report. FINA - DIPARTIMENTO DI SCIENZE DELLA TERRA PISA. Dip. di Scienze della Terra, dell'Università di Pisa nella persona giuridica del Prof. Paolo Scandone e della Prof.ssa Etta Patacca;
  - 6) Patacca E., Scandone P., Cascella A., **Lirer F.**, Meletti C., P. Pantani, S. Ruberti., 1998. Giove 1 well (off-shore Adriatic, Italy). Stratigraphic analysis of the interval (880-1050 m). Final Report. ENTERPRISE - DIPARTIMENTO DI SCIENZE DELLA TERRA PISA. Dip. di Scienze della Terra, dell'Università di Pisa nella persona giuridica del Prof. Paolo Scandone e della Prof.ssa Etta Patacca;
  - 7) Patacca E., Scandone P., Cascella A., **Lirer F.**, Merola D., Meletti C., Pantani P., Ruberti S., 1998. Monte Taburno 1 well (Tocco Gaudio Permit – Italy). Stratigraphic analysis of the allochthonous sheet and Apulia Platform (0-3733 m). Final Report. TEXACO - DIPARTIMENTO DI SCIENZE DELLA TERRA PISA. Dip. di Scienze della Terra, dell'Università di Pisa nella persona giuridica del Prof. Paolo Scandone e della Prof.ssa Etta Patacca;
  - 8) Patacca E., Scandone P., Cascella A., **Lirer F.**, Merola D., Meletti C., Pantani P., Ruberti S., 1998. Tempa d'Emma 1 well (Potenza – Italy). Final Report. Part 1. Stratigraphic analysis of the allochthonous sheets (30-4020 m). Part 2. Stratigraphic analysis of the Apulia Platform (4020-6200 m). Final Report. FINA - DIPARTIMENTO DI SCIENZE DELLA TERRA PISA. Dip. di Scienze della Terra, dell'Università di Pisa nella persona giuridica del Prof. Paolo Scandone e della Prof.ssa Etta Patacca;
  - 9) Patacca E., Scandone P., Cascella A., **Lirer F.**, Merola D., Meletti C., Pantani P., Ruberti S., 1999. Setteporte 1 well (Roccasicura Permit – Italy) Stratigraphic analysis (40 – 3200 m). Final Report. LASMO - DIPARTIMENTO DI SCIENZE DELLA TERRA PISA. Dip. di Scienze della Terra, dell'Università di Pisa nella persona giuridica del Prof. Paolo Scandone e della Prof.ssa Etta Patacca;
  - 10) Patacca E., Scandone P., Cascella A., **Lirer F.**, Meletti C., Pantani P., Ruberti S., 1999. Giove 2 well (off-shore Adriatic, Italy). Stratigraphic analysis of the interval (885-1266 m). Final Report. ENTERPRISE - DIPARTIMENTO DI SCIENZE DELLA TERRA PISA. Dip. di Scienze della Terra, dell'Università di Pisa nella persona giuridica del Prof. Paolo Scandone e della Prof.ssa Etta Patacca;
  - 11) Cascella A., **Lirer F.**, Meletti C., Patacca E., 2000. Late Jurassic - Holocene Time Table. ENTERPRISE - DIPARTIMENTO DI SCIENZE DELLA TERRA PISA 1999. Dip. di Scienze della Terra, dell'Università di Pisa nella persona giuridica del Prof. Paolo Scandone e della Prof.ssa Etta Patacca.

## **Part XXI– Participation to Champion Commission**

### *Commissioni di concorso per Assegni di Ricerca*

- 1) Bando di concorso n.IAMC-ADR-11/08/NA per il conferimento per titoli e colloquio di n.1 assegno di collaborazione ad attività di ricerca inerente l'Area Scientifica Geologia, da svolgersi presso l'IAMC-CNR sede di Napoli. PROT. IAMC-CNR N°0000862 del 28/03/2008.
- 2) Bando di concorso n.IAMC-ADR-12/08/NA per il conferimento per titoli e colloquio di n.1 assegno di collaborazione ad attività di ricerca inerente l'Area Scientifica Geologia, da svolgersi presso l'IAMC-CNR sede di Napoli. PROT. IAMC-CNR N°0000860 del 28/03/2008.
- 3) Bando di concorso n.IAMC-ADR-01/08/NA Prot. N° 0000110 del 16/01/2008 per il conferimento per titoli e colloquio di n.1 assegno di collaborazione ad attività di ricerca inerente l'Area Scientifica Geologia, da svolgersi presso l'IAMC-CNR sede di Napoli. PROT. IAMC-CNR N°0000334 del 08/02/2008.
- 4) Bando di concorso n.IAMC-ADR-02/08/NA per il conferimento per titoli e colloquio di n.1 assegno di collaborazione ad attività di ricerca inerente l'Area Scientifica Geologia, da svolgersi presso l'IAMC-CNR sede di Napoli. PROT. IAMC-CNR N°0000428 del 19/02/2008.
- 5) Bando di concorso n.IAMC-ADR-14/08/NA per il conferimento per titoli e colloquio di n.1 assegno di collaborazione ad attività di ricerca inerente l'Area Scientifica Geologia, da svolgersi presso l'IAMC-CNR sede di Napoli.

- 6) Bando di concorso n.IAMC-ADR-13/08/NA per il conferimento per titoli e colloquio di n.1 assegno di collaborazione ad attività di ricerca inerente l'Area Scientifica Geologia, da svolgersi presso l'IAMC-CNR sede di Napoli.
- 7) Bando di concorso n.IAMC-ADR-14/08/NA per il conferimento per titoli e colloquio di n.1 assegno di collaborazione ad attività di ricerca inerente l'Area Scientifica Geologia, da svolgersi presso l'IAMC-CNR sede di Napoli. PROT. IAMC-CNR N°0000436 del 18/02/2008.
- 8) Bando di concorso n.IAMC-ADR-04/08/NA per il conferimento per titoli e colloquio di n.1 assegno di collaborazione ad attività di ricerca inerente l'Area Scientifica Geologia, da svolgersi presso l'IAMC-CNR sede di Napoli. PROT. IAMC-CNR N°0000476 del 26/02/2008.
- 9) Bando di concorso n.IAMC-008-2011-NA per titoli e colloquio per il conferimento di n.1 assegno di collaborazione ad attività di ricerca inerente l'Area Scientifica Geologia, da svolgersi presso l'IAMC-CNR sede di Napoli, con la seguente tematica "lineamenti geologici e idrogeologici della Sicilia centro-occidentale volti a definire le caratteristiche dei corpi idrici a bassa entalpia: variazioni delle risorse bilanci idrogeologici". PROT. IAMC-CNR N°0002568 del 30/06/2011.
- 10) Bando di concorso n.IAMC-007-2011-NA per titoli e colloquio per il conferimento di n.1 assegno di collaborazione ad attività di ricerca inerente l'Area Scientifica Geologia, da svolgersi presso l'IAMC-CNR sede di Napoli, con la seguente tematica "lineamenti geologici e idrogeologici della Sicilia centro-occidentale volti a definire le caratteristiche dei corpi idrici a bassa entalpia: variazioni delle risorse bilanci idrogeologici". PROT. IAMC-CNR N°0002387 del 22/06/2011.
- 11) Bando di concorso n.IAMC-004-2011-NA per titoli e colloquio per il conferimento di n.1 assegno di collaborazione ad attività di ricerca nell'ambito del programma di ricerca VIGOR per la seguente tematica "Campionamento ed analisi geochimiche di elementi maggiori, minori e in tracce in suoli, sedimenti e acque", da svolgersi presso l'IAMC-CNR sede di Napoli. PROT. IAMC-CNR N°0002010 del 27/05/2011.
- 12) Bando n. IAMC-010-2010-NA Prot. 0001372 del 08/06/2012 per il conferimento di n.1 assegno di collaborazione ad attività di ricerca inerenti il progetto di ricerca "Marine Geohazard along the Italian coast" (MAGIC), da svolgersi presso l'IAMC-CNR sede di Napoli. PROT. IAMC-CNR N°0001610 del 02/07/2010.
- 13) Bando n. IAMC-ADR-10/08/NA per il conferimento di n.1 assegno di collaborazione ad attività di ricerca inerenti l'area di scientifica "Geologia" da svolgersi presso l'IAMC-CNR sede di Napoli. PROT. IAMC-CNR N°0000861 del 28/03/2008.
- 14) Bando n. IAMC-018/2013/NA per il conferimento di n.1 assegno di collaborazione ad attività di ricerca per lo svolgimento di attività di ricerca per il Progetto Strategico Nextdata PNR 2011-2013. PROT. IAMC-CNR N°0005862 del 29/07/2013.
- 15) Bando n. IAMC-014/2014/NA per il conferimento di n.1 assegno di collaborazione ad attività di ricerca senior per lo svolgimento di attività di coordinamento scientifico a supporto della costituenda Commissione CNR per la partecipazione Italiana all'International Ocean Discovery Program (IODP). PROT. IAMC-CNR N°0015132 del 15/12/2014.
- 16) Bando n. IAMC-015/2014/NA per il conferimento di n.1 assegno di collaborazione ad attività di ricerca per lo svolgimento della seguente tematica Utilizzo di tecniche di campionamento e analisi dei sedimenti marini per la valutazione dello stato di salute dei fondali attraverso l'utilizzo dei foraminiferi bentonici quali indicatori ambientali. PROT. IAMC-CNR N°0000020 del 07/01/2015.
- 17) Bando n° IBAF0052015NA per il conferimento di n.1 assegno di collaborazione ad attività di ricerca, nell'ambito del POR CAMPANIA FSE 2007/2013 - POR CAMPANIA FSE 2014/2020, ASSE IV - CAPITALE UMANO, ASSE V - TRANSSNAZIONALITA' ED INTERREGIONALITA' per la seguente tematica: Analisi spazio/temporali dell'interazione tra sistema insediativo e quello naturale delle aree marino costiere ad elevato impatto antropico. Prot. IBAF-CNR-IBAF N° 0002396 del 18/09/2015.
- 18) Bando n° IBAF0042015NA per il conferimento di n.2 assegno di collaborazione ad attività di ricerca, nell'ambito del POR CAMPANIA FSE 2007/2013 - POR CAMPANIA FSE 2014/2020, ASSE IV - CAPITALE UMANO, ASSE V - TRANSSNAZIONALITA' ED INTERREGIONALITA' per la seguente tematica: Strategie bio-chimiche per il monitoraggio della qualità dell'ambiente e la caratterizzazione dei fenomeni di contaminazione a carico di matrici ambientali. Prot. IBAF-CNR-IBAF N° 0002395 del 18/09/2015.

- 1) Bando n. 2007/4866 per l'affidamento di due incarichi per l'acquisizione e processing di datasse riguardanti metodologie basate sull'acustica, con particolare attenzione alla conoscenza delle tecniche Multibeam, sismica a riflessione monocanale (metodi Chirp e Sparker) e multicanale. Acquisizione e processing di dati riguardanti altre tecniche classiche della geofisica (metodo magnetico, metodo geoelettrico). PROT. IAMC-CNR N°. 0002731 del 27/12/2007.
- 2) Bando n. IAMC-CO-04/08/NA Prot. N° 0000298 del 05/02/2008. Selezione pubblica per titoli e colloquio per n.1 unità di personale a contratto di prestazione d'opera, sottoforma di rapporto di collaborazione coordinata e continuativa, da svolgersi presso l'IAMC-CNR sede di Napoli. PROT. IAMC-CNR N° 0000532 del 28/02/2008.
- 3) Bando n. IAMC-CO-03/08/NA Prot. N° 0000297 del 05/02/2008. Selezione pubblica per titoli e colloquio per n.1 unità di personale a contratto di prestazione d'opera, sottoforma di rapporto di collaborazione coordinata e continuativa, da svolgersi presso l'IAMC-CNR sede di Napoli. PROT. IAMC-CNR N° 0000529 del 28/02/2008.
- 4) Bando n. IAMC 0012761 DEL 06/11/2014. Selezione pubblica per titoli e colloquio per il conferimento di n° 3 unità contratti di collaborazione occasionale nell'ambito del Progetto PON STIGEAC PON01\_02848 aventi come oggetto attività di ricerca per la realizzazione di laboratori mobili per acquisizione ed elaborazione di dati meteo-marini, presso l'Istituto per l'Ambiente Marino Costiero del C.N.R. Napoli.

#### *Commissioni di concorso per Borse di Studio*

- 1) Bando n. IAMC-BS-005-2012-NA- Bando di concorso per n.2 Borse di Studio per laureati per ricerche nel campo dell'area delle scienze della terra, nell'ambito del progetto PON-RICERCA E COMPETITIVITA' 2007-2013 per le regioni della convergenza (Puglia, Campania, Calabria, Sicilia) "Progetto formativo I-AMICA, Infrastruttura di Alta tecnologia per il Monitoraggio Integrativo Climatico-Ambientale" Codice PON03\_00363. PROT.IAMC-CNR N°0005139 del 05/09/2012.

#### *Commissioni di concorso per Tecnici*

- 1) Bando n. CTD.IAMC.01/09/NA per la selezione per titoli e colloquio di n. 1 unità di personale con profilo professionale di Collaboratore Tecnico Enti di Ricerca, livello VI presso l'IAMC-CNR sede di Napoli. PROT. IAMC-CNR 0001800 del 02/07/2009.
- 2) Bando n.IAMC-15-11-NA per titoli e colloquio per la selezione di n.1 unità di personale con il profilo di Collaboratore Tecnico Enti di Ricerca, livello VI presso l'IAMC-CNR sede di Napoli. PROT.IAMC-CNR N°0005155 del 02/12/2011.
- 3) Bando di selezione N. IAMC. 02/12//NA, prot. N. 0009489 del 16/02/2012 pubblica selezione per titoli e colloquio ai sensi dell'art.10 comma 3 lettera b del "disciplinare concernente le assunzioni di personale con contratto di lavoro a tempo determinato" per l'assunzione ai sensi dell'ART.15 DEL CCNL del 7 ottobre 1996, di n.1 unità di personale con profilo professionale di Collaboratore tecnico Enti di Ricerca, livello VI presso l'Istituto per l'Ambiente Marino Costiero del C.N.R. - sede Napoli.

#### *Commissioni di concorso per Ricercatori*

- 1) Bando n.IAMC-10-11-NA per titoli e colloquio per la selezione di n.1 unità di personale con il profilo di Ricercatore livello III presso l'IAMC-CNR sede di Napoli. PROT.IAMC-CNR N°0004101 del 12/10/2011
- 2) Bando n.IAMC-15-12-NA per titoli e colloquio per la selezione di n.1 unità di personale con il profilo di Ricercatore livello III presso l'IAMC-CNR sede di Napoli. PROT.IAMC-CNR N°0004296 del 17/07/2012
- 3) Bando n.IAMC-10-14-NA per titoli e colloquio per la selezione di n.1 unità di personale con il profilo di Ricercatore livello III presso l'IAMC-CNR sede di Napoli. PROT.IAMC-CNR N°0005431 del 05/06/2014
- 4) Bando n.IAMC-19-14-NA per titoli e colloquio per la selezione di n.1 unità di personale con il profilo di Tecnologo livello III presso l'IAMC-CNR sede di Napoli. PROT.IAMC-CNR N°0010003 del 22/09/2014
- 5) Bando n.IAMC-12-14-NA per titoli e colloquio per la selezione di n.1 unità di personale con il profilo di Ricercatore livello III presso l'IAMC-CNR sede di Napoli. PROT.IAMC-CNR N°0005431 del 05/06/2014

- 6) BANDO N. 366.43 - AREA STRATEGICA CAMBIAMENTO GLOBALE ai sensi dell'art. 20, comma 2, del D.Lgs 25 maggio 2017, n. 75, per titoli e colloquio, per l'assunzione con contratto di lavoro a tempo indeterminato di tre unità di personale con il profilo di Ricercatore, III livello professionale. 12/09/2018. Decreto del Presidente del CNR prot. n.0059421

Luogo e data: ... Arzano (Na) , 03/02/2021

Il dichiarante

Folero Arzo

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