

Europass Curriculum Vitae

Personal information

First name(s) / Surname(s)

Marco Mastrogiuseppe

Work experience

Dates
June 2020
Occupation or position held
Researcher Assistant
Main activities
Data analysis for Neo observations
Name of employer
INAF

Dates
February 2020 – June 2020
Occupation or position held
Researcher
Main activities
Processing of GPR WISDOM data
Name of employer
CNES - France

Dates
September 2018 – September 2019
Occupation or position held
Postdoctoral program
Main activities
Backscattering analysis of Cassini RADAR data
Name of employer
California Institute of Technology, Caltech, Pasadena, CA, US Sapienza

Dates
September 2016 – September 2018
Occupation or position held
Research Assistant Contract
Main activities and responsibilities
Radar data processing of VISAR instrument
Name of employer
University of Rome, Sapienza

Dates
September 2014 – September 2016
Occupation or position held
Research Associate
Main activities
Processing and interpretation of Cassini radar data

Name of employer
Cornell University, Ithaca, NY, US

Dates
September 2009 – September 2014

Occupation or position
Research Assistant Contract (2 years) – Research Collaborator (3 years)

held
SHARAD and MARSIS data analysis

Main
activities

Name of
employer

Education and training

Dates
2009 – 2013

Title of qualification awarded
Ph.D. *in Information and Communications Technologies* – ICT
(Curriculum in Radar and Remote Sensing)

Name and type of organisation
providing education and training
University of Rome, Sapienza

Dates
2005 - 2008

Title of qualification awarded
Master's Degree, Communication Engineering, 110/110 with
thesis: *"Analysis of Cassini RADAR Data"*

Name and type of organisation
providing education and training
University of Rome, Sapienza

Dates
1999 - 2005

Title of qualification awarded
Bachelor's Degree, Telecommunication Engineering, 96/110
Degree thesis: *"Analysis of Cassini Altimetric data"*

Name and type of organisation
providing education and training
University of Rome, Sapienza

Mother Tongue
Italian

Other languages

Self-assessment

European level ()*

Spanish

English

Understanding				Speaking				Writing	
Listening		Reading		Spoken interaction		Spoken production			
	A1		A2		A1		A2		A2
	C1		C1		B2		B2		C1

(*) [Common European Framework of Reference for Languages](http://europa.europa.eu/education/policies/education/other/european_framework_of_reference_for_languages/)

Social skills and competences	Energetic, self-motivated team player who thrives in both independent and collaborative work environments, good aptitudes for interpersonal communication.
Organisational skills and competences	A quick learner, with an ability to rapidly achieve organizational integration
Computer skills and competences	Operating systems: Windows, Macintosh, UNIX/Linux. Programming languages: C/C++, Perl, Matlab, LATEX, Java Commercial Softwares: Office™ tools, iWork tools, Autodesk AutoCAD, Adobe
Artistic skills and competences	Radio Amateurs license from 1994
Additional Information	

Publications

- [J1] **Mastrogiuseppe, M.**, Poggiali V., Hayes A., Lorenz R., Lunine J., Picardi G., Seu R., Flamini E., Mitri G., Notarnicola C., Paillou P., Zebker, H., The Bathymetry of a Titan Sea. *Geophysical Research Letters* (2014).
- [J2] **Mastrogiuseppe, M.**, Poggiali, V., Seu, R., Martufi, R., Notarnicola, C. Titan dunes height retrieval by using Cassini Radar Altimeter. *Icarus* (2014).
- [J3] Mattia Callegari, Domenico Casarano, **Marco Mastrogiuseppe**, Valerio Poggiali, Claudia Notarnicola. Dune Height Estimation on Titan Exploiting Pairs of Synthetic Aperture Radar Images With Different Observation Angles. *IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing* (2014).
- [J4] Sugata P. Tan, JS Kargel, DE Jennings, **Marco Mastrogiuseppe**, Hertanto Adidharma, Giles M Marion. Titan's liquids: Exotic behavior and its implications on global fluid circulation. *Icarus* (2015).
- [J5] M.A. Janssen, Alice Le Gall, R.M. Lopes, R.D. Lorenz, M.J. Malaska, A.G. Hayes, C.D. Neish, A. Solomonidou, K.L. Mitchell, J. Radebaugh, S.J. Keihm, M. Choukroun, C. Leyrat, P.J. Encrenaz, **M. Mastrogiuseppe**. Titan's Surface at 2.18-cm Wavelength Imaged by the Cassini RADAR Radiometer: Results and Interpretations through the First Ten Years of Observation. *Icarus* (2016).
- [J6] R J Michaelides, A G Hayes, **M Mastrogiuseppe**, H A Zebker, T G Farr, M J Malaska, V Poggiali, J P Mullen. Constraining the physical properties of Titan's empty lake basins using nadir and off-nadir Cassini RADAR backscatter. *Icarus* (2016)
- [J7] S. P. D. Birch, A. G. Hayes, W. E. Dietrich, J. Moore, **M. Mastrogiuseppe**, O. White, A. D. Howard, M. J., Malaska, R. Kirk, E. Turtle, and J. Barnes. Geomorphology of Titan's polar terrains: Using landscape form to understand surface process. *Icarus* (2016).
- [J8] Valerio Poggiali, **Marco Mastrogiuseppe** et al., Liquid filled Canyon on Titan. *Icarus*. (2016).
- [J9] Alice Le Gall, R.D. Lorenz, M.J. Malaska, M.A. Janssen, T. Tokano, A.G. Hayes, **M. Mastrogiuseppe**, Gaëlle Veyssière. Composition, seasonal change and bathymetry of Ligeia Mare, Titan, derived from its 2.2-cm thermal emission. *JGR-Planets* (2016).
- [J10] **Mastrogiuseppe, M.**, V., Hayes A., M., Poggiali Seu R., Lunine J. Radar Sounding Using Cassini Altimeter: Waveform Modeling and Monte Carlo approach for Data Inversion of Observations of Titan Liquid Bodies. *IEEE Transactions on Geoscience and Remote Sensing* (2016).
- [J11] Vincent, D.; Karatekin, Ö.; Vallaey, V.; Hayes, A.G.; **Mastrogiuseppe, M.**; Notarnicola, C.; Dehant, V.; Deleersnijder, E. Numerical study of tides in Ontario Lacus, a hydrocarbon lake on the surface of the Saturnian moon Titan. *Ocean Dynamics*. 2016, 66, 461–482.
- [J12] Hofgartner, J.D.; Hayes, A.G.; Lunine, J.I.; Zebker, H.; Lorenz, R.D.; Malaska, M.J.; **Mastrogiuseppe, M.**; Notarnicola, C.; Soderblom, J.M. Titan's "Magic Islands": Transient features in a hydrocarbon sea. *Icarus* 2016, 271, 338–349.
- [J13] A.G. Hayes, S.P.D. Birch, W.E. Dietrich, A.D. Howard, R.L. Kirk, V. Poggiali, **Mastrogiuseppe, M.**, R J Michaelides et al. Topographic constraints on the evolution and connectivity of Titan's lacustrine basins Bathymetry and composition, *Geophysical Research Letters* (2016).
- [J14] C. Grima, **Mastrogiuseppe, M.**, A.G. Hayes, et al. Surface Roughness of Titan's

- [J15] **Mastrogiuseppe, M.**, V. Poggiali, A.G. Hayes, J.I. Lunine, R. Seu, G. Di Achille, R.D. Lorenz, Cassini radar observation of Punga Mare and environs: Bathymetry and composition, Earth and Planetary Science Letters, Volume 496, 2018, Pages 89-95, ISSN 0012-821X, <https://doi.org/10.1016/j.epsl.2018.05.033>.
- [J16] **Mastrogiuseppe, M.**, A.G. Hayes, V. Poggiali, J.I. Lunine, R.D. Lorenz, R. Seu, A. Le Gall, C. Notarnicola, K.L. Mitchell, M. Malaska, S.P.D. Birch, Bathymetry and composition of Titan's Ontario Lacus derived from Monte Carlo-based waveform inversion of Cassini RADAR altimetry data, Icarus, Volume 300, (2018).
- [J17] Nixon, C.; Lorenz, R.; Achterberg, R.; Buch, A.; Coll, P.; Clark, R.; Courtin, R.; Hayes, A.; less, L.; Johnson, R.; **M. Mastrogiuseppe** et al. Titan's cold case files-Outstanding questions after Cassini-Huygens. Planet. Space Sci. 2018.
- [J18] Valerio Poggiali, **Marco Mastrogiuseppe** et al. High-Resolution Topography of Titan adapting the Delay/Doppler Algorithm to the Cassini RADAR Altimeter Data. IEEE Transactions on Geoscience and Remote Sensing, (2019).
- [J19] **Mastrogiuseppe, M.**, V. Poggiali, A.G. Hayes, J.I. Lunine, R. Seu, G. Mitri, R.D. Lorenz, Deep and methane-rich lakes on Titan, Nature Astronomy, 2019.
- [J20] **Mastrogiuseppe, M.** Dual Frequency Orbiter-Radar System for the Observation of Seas and Tides on Titan: Extraterrestrial Oceanography from Satellite. Remote Sensing. (2019)
- [J21] L. Piazza, M.C. Raguso, **M. Mastrogiuseppe**, R. Seu, R. Orosei. Signal enhancement for planetary radar sounders. IET Electronics Letter . (2019)
- [J22] G. Mitri, J.I. Lunine, **M. Mastrogiuseppe**, V.Poggiali. Possible explotion crater origin of small lake basins with raised rims on Titan. Nature Geoscience. (2019)

Awards Honours and

- NASA Group Achievement Award: MRO SHARAD science team (2012)
- NASA Group Achievement Award: Cassini RADAR science and Operation team (2018)

Project, Conference,
Seminars

- 14th International Planetary Probe Workshop (IPPW 14), 12-16 June, 2017, The Hague, The Netherlands : "Radar Sounding On Ocean Worlds"
- Planetary Lunch Colloquium Series, Massachussetts Institute of Technology (MIT), 17th November 2015, Boston, MA : "Sunder Data Analysis for Planetary Exploration"
- Planetary Science seminar, Caltech, Pasadena , CA, February 2019: "Sounding Titan's seas"
- Jet Propulsion Laboratory (JPL), Pasadena, CA, 10th December 2015 : "Sunder Data Analysis for Planetary Exploration"
- Lecture, International School of Space Science, Aquila, Italy, 13th September 2016 : "Subsurface Sounding with Radar System"
- Press conference AGU (2014)
- Press release ESA : Profile of a methane sea on Titan

Reviewer Journals

- Nature Astronomy
- IEEE Trans. on Geoscience and Remote Sensing

Roma, 01 Dicembre 2020

(Marco Mastrogiuseppe)

Ai sensi della Legge 675/96 sulla riservatezza dei dati personali dichiaro di essere stata compiutamente informata delle finalità e modalità del trattamento dei dati consapevolmente forniti nel presente curriculum e ne autorizzo il trattamento e l'archiviazione in banca dati. Inoltre, consapevole che secondo quanto previsto dall'art. 76 del D.P.R. n. 445 del 28.12.2000, le dichiarazioni mendaci sono punite ai sensi del codice penale e delle leggi speciali in materia, dichiaro che quanto contenuto nel presente curriculum corrisponde a verità.