

Versione del curriculum vitae ai fini della pubblicazione

Decreto Rettore Università di Roma "La Sapienza" n. 761/2021 del 11/03/2021

Flavia Lanzara

Curriculum Vitae

Rome, March 19th, 2021

Part I - General Information

Full Name Flavia Lanzara
Web Page <http://www1.mat.uniroma1.it/people/lanzara/>
Spoken Languages Italian, English

Part II Education and Fellowships

1989 Degree in Mathematics, 110/110 cum laude, Università degli studi di Roma La Sapienza, advisor Prof. Gaetano Fichera
1989-1990 Scientific collaboration in the editorial office of the journal "Rendiconti Lincei. Matematica e Applicazioni", "Rendiconti Lincei. Scienze Fisiche e Naturali" (5 months)
1990-1991 CNR fellowship for research activities, advisor Prof. Gaetano Fichera (12 months)
1991-1992 INdAM fellowship for graduate students (12 months)
1992-1994 INdAM fellowship for research activities, advisor Prof. Gaetano Fichera (22 months)

Part III - Appointment

11/1995-Present University Researcher (SSD: MAT/05), Dipartimento di Matematica, Università degli studi di Roma La Sapienza
ASN Italian National Scientific Qualification 2018-2020: SC 01/A3, Associate Professor, valid from 30/06/2020 to 30/06/2029

Part IV - Periods of leave

04/09/1998-31/01/1999 Congedo per maternità (maternity leave), provvedimento n.3507 del 2/12/1998
01/02/1999-28/02/1999 Congedo parentale, provvedimento n.225 del 25/02/1999
10/01/2002-10/06/2002 Congedo per maternità (maternity leave), provvedimento n.1415bis del 16/12/2002
11/06/2002-30.06/2002 Congedo parentale, provvedimento n.1415 del 16/12/2002

Part V - Other Academic Appointments

V.A - Academic Appointments, Facoltà di Scienze MFN, Sapienza Università di Roma

2019-Present Giunta di Facoltà (Faculty Board), Facoltà di Scienze MFN, Sapienza Università di Roma, Dean Prof. Riccardo Faccini
2019-Present Delegata per il Dipartimento di Matematica nella Commissione di Orientamento (delegate for Mathematics Department in the Orientation Commission), Facoltà di Scienze MFN, Sapienza Università di Roma
2017-Present Referente OFA per Matematica, dal 2021 coordinatrice della Commissione OFA (OFA Referent for Mathematics, from 2021 coordinator of the OFA Commission), Facoltà di Scienze MFN, Sapienza Università di Roma.

2013-2014 Comitato di Monitoraggio, sezione didattica (Monitoring Committee, teaching section), Facoltà di Scienze MFN, Sapienza Università di Roma

2011-2013 Team Qualità, Facoltà di Scienze MFN, Sapienza Università di Roma

V.B - Academic Appointments, Mathematics Department, Sapienza Università di Roma

2019-Present Giunta di Dipartimento (Department Board), Dipartimento di Matematica, Sapienza Università di Roma, Head Prof. Isabeau Birindelli

2008-2010 Giunta di Dipartimento (Department Board), Dipartimento di Matematica, Sapienza Università di Roma, Head Prof. Vincenzo Nesi

2006-2008 Giunta di Dipartimento (Department Board), Dipartimento di Matematica, Sapienza Università di Roma, Head Prof. Alessandro Figà Talamanca

2018 Commissione Assegno di Ricerca Annuale (Committee for a research fellowship -12 months), Dipartimento SBAI, Sapienza Università di Roma.

2013 Commissione Assegno di Ricerca Annuale (Committee for a research fellowship -12 months), Dipartimento di Matematica, Sapienza Università di Roma.

2016-2018 Commissione borse di studio per la frequenza di corsi o attività di perfezionamento all'estero per l'area disciplinare CUN 1 (International Post-degree Scholarship Committee to attend courses and traineeships at foreign universities), Sapienza Università di Roma.

2016 Commissione borse di collaborazione studenti per il funzionamento della Biblioteca, e del Laboratorio e Centro di Calcolo, Dipartimento di Matematica, Sapienza Università di Roma

V.C- Academic Appointments, Didactic Area Council in Mathematics, Sapienza Università di Roma

2013-2019 Commissione Assicurazione di Qualità per la Laurea Triennale in Matematica (Quality Assurance Committee for the first degree programme in Mathematics)

2013-2015 Commissione per la revisione della Laurea Triennale in Matematica (Commission for the revision for the first degree programme in Mathematics)

2011 Commissione Assicurazione di Qualità (Quality Assurance Committee)

Part VI - Awards

2018 Riconoscimento per l'eccellente insegnamento universitario (Award for Teaching Excellence), Facoltà di Scienze MFN, Sapienza Università di Roma, (V edition)

2014 Riconoscimento per l'eccellente insegnamento universitario (Award for Teaching Excellence), Facoltà di Scienze MFN, Sapienza Università di Roma, (I edition)

1993 Prize "Gioacchino Iapichino", Accademia Nazionale dei Lincei

Part VII - Membership of editorial board

2019-Present Proceedings of I. Vekua Institute of Applied Mathematics (Proc. VIAM) (ISSN 1512-004X)

2019-Present Eurasian Mathematical Journal (ISSN 2077-9879)

Part VIII - Visiting periods at foreign institutions

2003 Erwin Schroedinger International Institute for Mathematical Physics (ESI), Wien, Austria invited by Prof. V. Maz'ya (21 days)

2009 Weierstrass Institute for Applied Analysis and Stochastics (WIAS), Berlin, Germany invited by Prof. G. Schmidt (1 month)

2010 Illia Vekua Institute of Applied Mathematics, Tbilisi University, Georgia, where I taught the Advanced Course "Cubature of Integrals operators by Approximate Quasi-Interpolation and Applications" invited by Prof. G. Jaiani (1 week)

2013 Mittag-Leffler Institute, Djursholm, Sweden (1 week)

Part IX - Teaching Activity

IX.A Courses:

2020/2021 Analisi Vettoriale (9 CFU), 2 anno LT in Fisica, Sapienza Università di Roma

2019/2020 Analisi Vettoriale (9 CFU), 2 anno LT in Fisica, Sapienza Università di Roma

2018/2019 Analisi Vettoriale (9 CFU), 2 anno LT in Fisica, Sapienza Università di Roma

2017/2018 Analisi Vettoriale (9 CFU), 2 anno LT in Fisica, Sapienza Università di Roma

2016/2017 Analisi Vettoriale (9 CFU), 2 anno LT in Fisica, Sapienza Università di Roma

2015/2016 Analisi Vettoriale (9 CFU), 2 anno LT in Fisica, Sapienza Università di Roma

2014/2015 Variabile Complessa (6 CFU), 3 anno LT in Matematica, Sapienza Università di Roma

2013/2014 Analisi Vettoriale (9 CFU), 2 anno LT in Fisica, Sapienza Università di Roma

2012/2013 Ottimizzazione (8 CFU), 3 anno LT in Matematica, Sapienza Università di Roma

2011/2012 Analisi (9 CFU), 1 anno LT in Fisica, Sapienza Università di Roma

2010/2011 Ottimizzazione (8 CFU), 3 anno LT in Matematica, Sapienza Università di Roma

2009/2010 Ottimizzazione (8 CFU), 3 anno LT in Matematica, Sapienza Università di Roma

2008/2009 Variabile Complessa (8 CFU), 3 anno LT in Matematica, Sapienza Università di Roma

2007/2008 Analisi (8 CFU), 1 anno LT in Fisica, Sapienza Università di Roma

Ottimizzazione (4 CFU), 3 anno LT in Matematica, Sapienza Università di Roma

2006/2007 Analisi Vettoriale (5 CFU), 2 anno LT in Fisica e Tecnologie Fisiche e dell'Informazione, Sapienza Università di Roma

Ottimizzazione (4 CFU), 3 anno LT in Matematica, Sapienza Università di Roma

2005/2006 Analisi Vettoriale (5 CFU), 2 anno LT in Fisica e Tecnologie Fisiche e dell'Informazione, Sapienza Università di Roma

2004/2005 Analisi Vettoriale (5 CFU), 2 anno LT in Fisica e Tecnologie Fisiche e dell'Informazione, Sapienza Università di Roma

Ottimizzazione (4 CFU), 3 anno LT in Matematica, Sapienza Università di Roma

2003/2004 Funzioni di più variabili (5 CFU), 1 anno LT in Fisica, Fisica ed Astrofisica e Tecnologie Fisiche e dell'Informazione, Sapienza Università di Roma

Abilità Informatiche: Mathematica (2 CFU), LT in Matematica, Sapienza Università di Roma

2002/2003 Funzioni di più variabili (5 CFU), 1 anno LT in Fisica, Fisica ed Astrofisica e Tecnologie Fisiche e dell'Informazione, Sapienza Università di Roma

Abilità Informatiche: Mathematica (2 CFU), LT in Matematica, Sapienza Università di Roma

2001/2002 Derivate e Integrali, 1 anno LT in Fisica, Fisica ed Astrofisica e Tecnologie Fisiche e dell'Informazione, Sapienza Università di Roma

Abilità Informatiche: Mathematica (2 CFU), LT in Matematica, Sapienza Università di Roma

IX.B - Esercitazioni dei seguenti corsi (teaching assistant):

2000/2001	Istituzione di Analisi Superiore, Laurea in Matematica, Prof. I. Capuzzo Dolcetta, Sapienza Università di Roma
1999/2000	Istituzione di Analisi Superiore, Laurea in Matematica, Prof. L. Boccardo, Sapienza Università di Roma
1998/1999	Analisi Matematica 2, Laurea in Informatica, Prof. M. Falcone, Sapienza Università di Roma
1997/1998	Analisi Matematica 2, Laurea in Fisica, Prof. C. Cassisa, Sapienza Università di Roma
1996/1997	Analisi Matematica 2, Laurea in Fisica, Prof. C. Cassisa, Sapienza Università di Roma
1995/1996	Analisi Matematica 2, Laurea in Fisica, Prof. C. Cassisa, Sapienza Università di Roma

IX.C - Theses supervision:

2004-2020	51 Theses for Undergraduate Students in Mathematics (Laurea Triennale in Matematica), Sapienza Università di Roma 8 Theses for Master Students in Mathematics (Laurea Magistrale in Matematica), Sapienza Università di Roma http://www1.mat.uniroma1.it/people/lanzara/elencoTesi.pdf
-----------	--

IX.D - Teaching Books

2017	F. Lanzara, E. Montefusco, <i>Esercizi svolti di Analisi Vettoriale e complementi di teoria</i> , Edizioni LaDotta 2017.
2015	F. Lanzara, <i>Funzioni di una variabile complessa: elementi di teoria ed esercizi svolti</i> , Edizioni LaDotta 2015.
2013	I. Capuzzo Dolcetta, F. Lanzara, A. Siconolfi, <i>Lezioni di Ottimizzazione</i> , Collana Studi Matematici, vol.5, Edizione Nuova Cultura, 2013, pp. 1-226, doi:10.4458/1860

IX.E - Other activities

2020	Partecipazione to the Project "Sapienza in Comune con la Scuola", Responsabile Prof. Vincenzo Nesi. https://www.uniroma1.it/it/pagina/sapienza-comune
2017-Present	Piattaforma OF@SAPIENZA - Sezione di Matematica sul portale elearning Sapienza per la preparazione ai test di accesso o per l'eventuale recupero del debito OFA. https://elearning.uniroma1.it/course/view.php?id=6266

Part X - Funding Information

X.A - As Principal Investigator

2002	Sapienza University Program "Visiting Professor": funding for the visit of Prof. Vladimir Maz'ya (60 days)
2005	Sapienza University Program "Visiting Professor": funding for the visit of Prof. Vladimir Maz'ya (45 days)
2005	Sapienza University Program "Visiting Professor": funding for the visit of Prof. Gunther Schmidt (30 days)

- 2009 Project "Ricerche di Ateneo Federato della Scienza e della Tecnologia (AST)" , Sapienza Università di Roma. Other members: Prof. Caterina Cassisa, Prof. Biancamaria Della Vecchia, Prof. Paolo Emilio Ricci, Prof. Paola Vernole
- 2009 Agreements for Cultural and Scientific Cooperation between Sapienza Università di Roma and Tbilisi State University, Georgia
- 2010 Agreements for Cultural and Scientific Cooperation between Sapienza Università di Roma and Tbilisi State University, Georgia

X.B - As Investigator

- 1997 PRIN 1997 Cofinanziato. Coordinatore Prof.ssa Valeria Ruggiero, Responsabile Prof. Paolo Emilio Ricci, Sapienza Università di Roma
- 1998-Present Member of INdAM - GNAMPA (ex GNAFA), Section: Differential equations and Dynamical systems (from 1998 to 2015 and from 2019 to present)
- 2001-2006 Project "Ricerche di Ateneo". Responsabile Prof. Paolo Emilio Ricci, Sapienza Università di Roma
- 2005 PRIN 2005 Cofinanziato. Coordinatore e Responsabile Prof. Antonio Di Carlo, Università di Roma Tre
- 2007-2008 Project "Ricerche di Ateneo Federato della Scienza e della Tecnologia (AST)", Responsabile Prof. Paolo Emilio Ricci, Sapienza Università di Roma
- 2007-2009 Project "Ricerche Universitarie (ex Ricerche di Ateneo)". Responsabile Prof. Paolo Emilio Ricci, Sapienza Università di Roma
- 2009 Project "Ateneo Federato della Scienza e della Tecnologia (AST)" . Responsabile Prof. Eugenio Montefusco, Sapienza Università di Roma (codice C26F094XB5)
- 2010 Project "Ricerche Universitarie" . Responsabile Prof. Isabeau Birindelli, Sapienza Università di Roma (codice C26A103XP4)
- 2011 Project "Ricerche Universitarie". Responsabile Prof. Eugenio Montefusco, Sapienza Università di Roma (codice C26A119MRZ)
- 2012 Project "Ricerche Universitarie" . Prof. Filomena Pacella, Sapienza Università di Roma (codice C26A12L3S7)
- 2013 Project "Ricerche Universitarie". Responsabile Prof. Filomena Pacella, Sapienza Università di Roma (codice C26A13F29B)
- 2014 Project "Ricerche Universitarie - AWARDS". Responsabile Prof. Massimo Grossi, Sapienza Università di Roma (codice C26H14ARXB)
- 2015 Project "Ricerche Universitarie". Responsabile Prof. Eugenio Montefusco, Sapienza Università di Roma (codice C26A15BF7L)
- 2016 Project "Ricerche Universitarie". Responsabile Prof. Massimo Grossi, Sapienza Università di Roma (codice RM116154F5FB5F93)
- 2017 Project "Ricerche Universitarie" . Responsabile Prof.ssa Angela Pistoia, Sapienza Università di Roma (codice RG11715C78E089A7)
- 2018 Project "Ricerche Universitarie". Responsabile Prof.ssa Francesca De Marchis, Sapienza Università di Roma (codice RM11816436A27ABB)
- 2019 Project "Ricerche Universitarie". Responsabile Prof.ssa Filomena Pacella, Sapienza Università di Roma (codice RG11916B80857E86)
- 2020 Project "Ricerche Universitarie". Responsabile Prof.ssa Fabiana Leoni, Sapienza Università di Roma (codice RM120172ADA7258C)

Part XI - Research Activities

XI.A - Brief Description

Strongly competing systems. Segregated configurations, which appear in the strong competition regime between k interacting species in a planar domain, are analysed in [1], [2] and [7]. A full description of the case with 4 species under suitable assumptions on the non-homogeneous boundary data is given in [7]. The case $k > 4$ is studied in [1] and [2]. If k is even, connections between the segregated partition and the nodal set of a harmonic function are either established or excluded.

Approximate Approximations. "Approximate Approximations" were proposed by V. Maz'ya in the late 80's. This procedure enables to construct multivariate approximation formulas, which are easy to implement and have additionally the property that the action of a given pseudodifferential operator can be effectively determined. My research concerns: the extension of the method when the data are given on a perturbed uniform grid ([24],[25]), on a rather general grid ([27],[22]), or when the values of the data and of some of its derivatives are prescribed ([23]); the implementation of a new method for solving the integral equation of Lippmann- Schwinger type in the diffraction theory ([28]); the construction of approximation formulas of volume potential for the modified Helmholtz operator over bounded domains ([18]); the construction of semi-analytic fast formulas for the computation of the following multi-dimensional integral operators: the Newton potential over \mathbb{R}^n , over half-spaces and over boxes ([20],[19],[16]); the advection-diffusion potential ([15]), the parabolic potential ([14]), the Schrödinger potential ([9],[12]), the diffraction potential ([10]); the biharmonic potential ([6]); the polyharmonic potential ([4]); the elastic and hydrodynamic potentials ([3]); the Stokes potential for the Cauchy problem for the nonstationary Stokes system ([5]).

Fourier analysis and Riesz potential. A nontrivial example of eigenfunction in the sense of distributions for the planar Fourier transform is given in [13]. In [11] a method for obtaining other eigenfunctions is proposed, which is related to the eigenfunctions of a certain singular integral operator. The differentiability properties of the symbol of a generalized Riesz potential with homogeneous characteristic are studied in [8].

Potential theory. In [30] a strongly elliptic system of order 2ℓ in the plane with constant complex entries is considered. The simple layer potential, whose kernel is the fundamental solution of order n , is used for solving boundary value problems with boundary conditions of order $l + n$ ([26]).

Positive Compact Operators and The Method of Orthogonal Invariants In [38] the concept of intermediate operators is used to approximate the Green operator of the problem under consideration by explicitly known sequences of Positive Compact Operators and to give explicit a priori estimates for the approximation problems. In [37], [36] and [35] the theory is applied to the BVPs of elastostatics when vanishing displacements, vanishing forces and mixed conditions are given on the boundary, respectively. In [34] non self-adjoint problems are considered. In [32] the theory developed in [35]-[38] is applied for the calculus of the Green operator and of the corresponding Green function to the Dirichlet problem for a second order linear elliptic equation with bounded and measurable coefficients.

In [33] an algorithm is proposed for computing, with any desired precision, the best constant c in an L^2 estimate for harmonic functions. The problem is reduced to the calculation of the eigenvalues of a certain integral operator. Upper bounds for c , arbitrarily close to c , have been obtained by using the Method of Orthogonal Invariants by G. Fichera.

Quadrature formulas. For integrals involving a nonnegative weight function on a finite interval a procedure to construct quadrature formulas which are exact for solutions of linear differential equations and are optimal in the sense of Sard are proposed in [31]. New examples of optimal quadrature formulas, constructed using the proposed method, are given and compared with well-known formulas.

XI.B - Speaker or Invited Speaker at International Conferences, Workshops and Seminars

- | | |
|------|--|
| 1992 | Conference "Functional Analysis and Approximation Theory", Acquafredda di Maratea, Italy, 14-19 settembre 1992. Title: Teoria degli operatori intermedi e Applicazioni |
| 1993 | Conference "Abstract Analysis", Kruger National Park, Republic of South Africa, 14-23 aprile 1993. Title: The theory of intermediate operators and applications |
| 1995 | Conference "Approximation Theory and Symmetric Structures", Budapest, Hungary, 21-25 agosto 1995. Title: Theory of intermediate operators and applications |

- 2005 "Incontro interno degli analisti", Dipartimento di Matematica, Sapienza Università di Roma, 25-26 gennaio 2005. Title: Approximate Approximations e sue applicazioni
- 2005 Seminario al Dipartimento Me.Mo.Mat., Sapienza Università di Roma, marzo 2005. Title: "Approximate Approximations e applicazioni"
- 2006 "Incontro interno degli analisti", Dipartimento di Matematica, Sapienza Università di Roma, 7-8 febbraio 2006. Title: Approximate Approximations su griglie non uniformi
- 2006 Conference "Current Problems of Analysis and Mathematical Physics", Taormina (ME), 29 giugno - 1 luglio, 2006. Title: Approximate Approximations on nonuniform grids
- 2009 Workshop "Advanced Special Functions and Solutions of PDEs", Sabaudia (LT), 24-28 maggio 2009. Title: On Approximate Quasi Interpolation
- 2009 WIAS Seminar, Weierstrass Institute of Applied Mathematics, Berlin, 15 settembre 2009. Title: Tensor product approximations of high dimensional potentials
- 2010 Seminar at Ilia Vekua Institute of Applied Mathematics, Tbilisi State University, Georgia, 23 giugno 2010. Title: Tensor product approximations of high dimensional potentials
- 2010 Workshop on "Approximate Approximations and their Applications", Liverpool University, 14-15 dicembre 2010. Title: Tensor product approximations of high dimensional potentials
- 2011 Seminario A.MA.CA. - Analisi MATEMATICA al CASTELNUOVO, Dipartimento di Matematica, Sapienza Università di Roma, 21-22 febbraio 2011. Title: Sul calcolo dei potenziali di volume in dimensione superiore.
- 2011 Conference "Continuum Mechanics and Related Problems of Analysis" Tbilisi, Georgia, 9-14 settembre 2011. Title: Cubature of volume potentials over high-dimensional half-spaces
- 2011 II International Conference of the Georgian Mathematical Union, Batumi, Georgia 15-19 settembre 2011. Title: On Approximate Approximations
- 2012 7th European Conference on Elliptic and Parabolic Problems, Gaeta (LT), Italy, 21-25 maggio 2012. Title: Accurate cubature of high-dimensional volume potentials
- 2012 Seminario P(n), Dipartimento di Matematica, Sapienza Università di Roma, 15 novembre 2012. Title: Approximate Approximations
- 2013 Seminario A.MA.CA. - Analisi MATEMATICA al CASTELNUOVO, Dipartimento di Matematica, Sapienza Università di Roma, 28-29 gennaio 2013. Title: Calcolo veloce di potenziali su domini rettangolari.
- 2013 Conference "Modern Problems in Applied Mathematics", Tbilisi, Georgia, 4-7 settembre, 2013. Title: Fast cubature of volume potentials over rectangular domains by approximate approximations
- 2013 Conference "Analysis of Partial Differential Equation", Liverpool University, 16-17 dicembre 2013. Title: Fast computation of volume potentials by approximate approximations
- 2015 Conference "The Real World is Complex", University of Copenhagen, 26-28 agosto 2015. Title: Approximation of solutions to multidimensional parabolic equations by Approximate Approximations
- 2017 11th ISAAC Congress, Linnaeus University, Vaxjo, Sweden, 14-18 agosto 2017. Title: Approximation of solutions to time dependent multidimensional Schroedinger equations

- 2018 Seminario A.MA.CA. - Analisi MATEMATICA al CASTELNUOVO, Dipartimento di Matematica, Sapienza Università di Roma, 7 maggio 2018. Title: On eigenfunctions of the Fourier Transform.
- 2018 Conference "Italian Society of Applied and Industrial Mathematics (SIMAI)", Faculty of Civil and Industrial Engineering, Sapienza Università di Roma, 2-6 luglio 2018. Title: Cubature of high dimensional volume potentials based on approximate approximations.
- 2018 Conference "Modern Problems in Applied Mathematics", Tbilisi State University, Georgia, 19-21 settembre 2018. Title: Recent developments in the computation of high-dimensional volume potentials based on Approximate Approximations
- 2019 Seminario P(n), Dipartimento di Matematica, Sapienza Università di Roma, 17 gennaio 2019. Title: Some remarks on strongly competing systems
- 2019 Conference "Harmonic Analysis and PDE", Holon Institute of Technology, Israel, 26-31 maggio 2019. Title: Fast computation of high dimensional biharmonic potential based on Approximate Approximations
- 2019 12th ISAAC Congress, University of Aveiro, Portugal, 29 luglio- 2 agosto 2019. Title: On the limit configuration of four species strongly competing systems

XI.D - Organization of Conferences or Seminars

- 2006 Organizing committee member of the Conference "Current Problems of Analysis and Mathematical Physics", Taormina (ME), 29 giugno- 1 luglio 2006
- 2008 Organizing committee member of the "INdAM International Conference Analysis, PDEs and Applications", Roma, 30 giugno- 3 luglio 2008
- 2009 Organizing committee member of the Workshop "Advanced Special Functions and Solutions of PDEs" , Sabaudia (LT), 24-28 Maggio 2009
- 2010-2012 Organizing committee member "Seminari di Analisi Matematica", Dipartimento di Matematica, Università La Sapienza, Roma
- 2016 Organizing committee member of the "14th International Conference on Integral Methods in Science and Engineering", Department of Mathematics, University of Padua, 25-29 luglio 2016
- 2018 Scientific Member of the Conference "Modern Problems in Applied Mathematics", Tbilisi, Georgia, 19-21 settembre, 2018

XI.E - Complete List of Publications

For each publication, authors, title, reference data and, if applicable, journal IF=Web of Science Impact Factor, SC=Scopus Scimago Cites/Doc.(2 years) and citations (on Scopus and Web of Science) are included.

- [1] F. Lanzara, E. Montefusco, *Some remarks on segregation of k species in strongly competing systems*, to appear in: *Interfaces and Free Boundaries* (ArXiv 2103.06808v1 with acceptance letter). IF2019: 0.868 - SC2019: 0.846 (LAST IMPACT FACTOR AVAILABLE).
- [2] F. Lanzara, E. Montefusco, *Geometry of the Limiting Solution of a Strongly Competing System*, *Lecture Notes of TICMI* 21 (2020) 53–65.
- [3] F.Lanzara, V. Maz'ya, G. Schmidt, *Fast computation of elastic and hydrodynamic potentials using approximate approximations*, *Anal. Math. Phys.* (2020), 10:81. IF2019: 2.056 - SC2019:1.843 (2020 NOT AVAILABLE) - Cit. 0 (Scopus) 0 (Web of Science)
- [4] F. Lanzara, G. Schmidt, *Approximate Approximations: recent developments in the computation of high dimensional potentials*, *St. Petersburg Mathematical Journal* 31 (2020) 355-370. Translated into Russian in *Algebra i Analiz*, 31 (2019) 227-247. SC2019: 0.500 (SC2020 NOT AVAILABLE) - Cit. 0 (Scopus)

- [5] F.Lanzara, V. Maz'ya, G. Schmidt, *Approximation of solutions to nonstationary Stokes system*, J. Math. Sci. 244 (2020), 436–450. Translated into Russian in Problemy Matematicheskogo Analiza, 100 (2019), 71–82.
SC2019: 0.327 (SC2020 NOT AVAILABLE) - Cit. 1 (Scopus)
- [6] F.Lanzara, V. Maz'ya, G. Schmidt, *Fast cubature of high dimensional biharmonic potential based on Approximate Approximations*, Annali dell'Università di Ferrara 65, (2019), 277-300.
SC2019: 0.480 - Cit. 3 (Scopus)
- [7] F. Lanzara, E. Montefusco, *On the limit configuration of four species strongly competing systems*, Nonlinear Differential Equations and Applications NoDEA, (2019) 26:19.
IF2019: 1.132 - SC2019: 1.303 - Cit. 0 (Scopus) 0 (Web of Science)
- [8] F. Lanzara, V. Maz'ya, *Differentiability properties of the symbol of a generalized Riesz potential with homogeneous characteristic*. J. Math. Sci. , 242 (2019) 200-213. Translated into Russian in Problemy Matematicheskogo Analiza, 99, (2019), 23-33.
SC2019: 0.327 - Cit. 0 (Scopus)
- [9] F. Lanzara, V. Maz'ya, G. Schmidt, *A fast solution method for time dependent multidimensional Schrödinger equations*. Appl. Anal. 98 (2019) , 408-429.
IF2019: 1.107 - SC2019: 1.152 - Cit. 4 (Scopus) 1 (Web of Science)
- [10] F.Lanzara, V. Maz'ya, G. Schmidt, *Accurate Computation of the High Dimensional Diffraction Potential Over Hyper-Rectangles*. Bulletin of TICMI 22 (2018) 91-102.
SC2018: 0.222 - Cit. 3 (Scopus)
- [11] F. Lanzara, V. Maz'ya, *On eigenfunctions of the Fourier transform*. J. Math. Sci. 235 (2018), 182-198. Translated into Russian in Problemy Matematicheskogo Analiza. 94 (2018), 59-72.
SC2018: 0.248 - Cit. 1 (Scopus)
- [12] F. Lanzara, *Cubature of multidimensional Schrödinger potential based on approximate approximations*. In: Analysis, Probability, Applications, and Computation, Trends in Mathematics. Proceedings of the 11th ISAAC Congress, Vaxjo (Sweden) 2017. Series: Research Perspectives. Birkhäuser series, 2019.
Cit. 0 (Scopus)
- [13] F. Lanzara, V. Maz'ya, *Note on a Nonstandard Eigenfunction of the Planar Fourier Transform*. J. Math. Sci. 224 (2017), 694–698. Translated into Russian in Problemy Matematicheskogo Analiza, 88 (2017) 83-86.
SC2017: 0.279 - Cit. 3 (Scopus)
- [14] F. Lanzara, V. Maz'ya, G. Schmidt, *Approximation of solutions to multidimensional parabolic equations by approximate approximations*. Appl. Comput. Harmon. Anal. 41 (2016) 749–767.
IF2016: 2.634 - SC2016: 3.651 - Cit. 9 (Scopus) 5 (Web of Science)
- [15] F.Lanzara, G.Schmidt, *On the computation of high-dimensional potentials of advection- diffusion operators*. Mathematika 61 (2015) 309–327.
IF2015: 0.714 -SC2015: 0.754 - Cit. 7 (Scopus) 4 (Web of Science)
- [16] F. Lanzara, V. Maz'ya, G. Schmidt, *Fast cubature of volume potentials over rectangular domains by approximate approximations*. Appl. Comput. Harmon. Anal. 36 (2014) 167–182.
IF2014: 2.036 - SC2014: 3.448 - Cit. 13 (Scopus) 8 (Web of Science)
- [17] A. Cialdea, F. Lanzara, *Stability of solutions of evolution equations*. Rend. Lincei Mat. Appl. 24 (2013) 451-469.
IF2013: 0.684 - SC2013: 0.942 - Cit. 3 (Scopus) 3 (Web of Science)
- [18] F. Lanzara, V. Maz'ya, G. Schmidt, *Computation of volume potentials over bounded domains via approximate approximations*. J. Math. Sciences 189 (2013) 508-524. Translated into Russian in Problemy Matematicheskogo Analiza 68 (2013) 157–171.
SC2013: 0.204 - Cit. 3 (Scopus)
- [19] F. Lanzara, V. Maz'ya, G. Schmidt, *Accurate cubature of volume potentials over high-dimensional half-spaces* , J. Math. Sciences 173 (2011) 683-700. Translated into Russian in Problemy Matem-

- aticheskogo Analiza 55 (2011) 37-52.
 SC2011: 0.195 - Cit. 9 (Scopus)
- [20] F. Lanzara, V. Maz'ya, G. Schmidt, *On the fast computation of high dimensional volume potentials*. Math. Comp. 80 (2011) 887-904.
 IF2011: 1.313 - SC2011: 1.389 - Cit. 20 (Scopus) 7 (Web of Science)
- [21] A. Cialdea, F. Lanzara, P. E. Ricci, *On the occasion of the 70th birthday of Vladimir Maz'ya*. Analysis, partial differential equations and applications, ix - xvii, Oper. Theory Adv. Appl., 193, Birkhäuser Verlag, Basel, 2009.
 Cit. 1 (Scopus) 1 (Web of Science)
- [22] F. Lanzara, G. Schmidt, *Cubature of integral operators by approximate quasi-interpolation*. Analysis, partial differential equations and applications, 129-142, Oper. Theory Adv. Appl., 193, Birkhäuser Verlag, Basel, 2009.
 Cit. 0 (Scopus) 0 (Web of Science)
- [23] F. Lanzara, V. Maz'ya, G. Schmidt, *Approximate Hermite quasi-interpolation*, Appl. Anal. 87 (2008) 805-827.
 IF2009: 0.613 - SC2008: 0.342 - Cit. 2 (Scopus) 2 (Web of Science)
- [24] F. Lanzara, V. Maz'ya, G. Schmidt *Approximate Approximations with Data on a Perturbed Uniform Grid*, Z. Anal. Anwend. 27 (2008) 323-338.
 IF2008: 0.828 - SC2008: 0.922 - Cit. 1 (Scopus) 1 (Web of Science)
- [25] F. Lanzara, V. Maz'ya, G. Schmidt, *Approximate Approximations on nonuniform grids*, Le Matematiche (Catania), 62 (2007) 303-318.
- [26] F. Lanzara, *On BVPs for Strongly Elliptic Systems with Higher Order Boundary Conditions*, Georgian Math. J. 14 (2007) 145-167.
 IF2009:0.353 - SC2007: 0.289 - Cit. 1 (Scopus) 1 (Web of Science)
- [27] F. Lanzara, V. Maz'ya, G. Schmidt, *Approximate Approximations from scattered data*, J. Approx. Theory 145 (2007) 141-170.
 IF2007: 0.697 - SC2007: 0.684 - Cit. 9 (Scopus) 7 (Web of Science)
- [28] F. Lanzara, V. Maz'ya, G. Schmidt, *Numerical Solution of the Lippmann-Schwinger Equation by Approximate Approximations*, J. Fourier Anal. Appl. 10 (2004) 645-660.
 IF2004: 0.797 - SC2004: 0.800 - Cit. 12 (Scopus) 11 (Web of Science)
- [29] A. Cialdea, F. Lanzara, *Some contributions of G. Fichera to the theory of Partial Differential Equations*, Quaderni di Matematica, 7 (2000) 79-143, ISBN: 8879993216
- [30] F. Lanzara, *A Representation Theorem for Solutions of Higher Order Strongly Elliptic Systems*, Quaderni di Matematica, 7 (2000) 233-271, ISBN: 8879993216
- [31] F. Lanzara, *On optimal quadrature formulae*, J. Inequal. Appl. 5 (2000) 201-225.
 IF2000: 0.457 - Cit. 18 (Scopus) 17 (Web of Science)
- [32] F. Lanzara, *Numerical approximation of eigenvalues and of Green's operator for an elliptic boundary value problem*. Calcolo, 35 (1998) 63-92.
 SC1999: 0.043 - Cit. 4 (Scopus)
- [33] F. Lanzara, *L^2 estimate for harmonic functions*. Rend. Accad. Naz. Sci. XL Mem. Mat. Appl. 20 (1996) 141-156.
- [34] F. Lanzara, *Teoria degli operatori intermedi e applicazioni: il problema non autoaggiunto*. Rend. Mat. Acc. Lincei, s.9, v.4 (1993) 157-169.
- [35] F. Lanzara, *Teoria degli operatori intermedi e applicazioni: statica elastica con coefficienti discontinui, il problema misto e i problemi di trasmissione*. Rend. Mat. Acc. Lincei, s.9, v.4 (1993) 87-98.
- [36] F. Lanzara, *Teoria degli operatori intermedi e applicazioni: statica elastica con coefficienti discontinui, il problema delle tensioni*. Rend. Mat. Acc. Lincei, s.9, v.4 (1993) 3-27.

- [37] F. Lanzara, *Teoria degli operatori intermedi e applicazioni: statica elastica con coefficienti discontinui, il problema degli spostamenti*. Rend. Mat. Acc. Lincei, s.9, v.3 (1992) 149-171.
- [38] F. Lanzara, *Teoria degli operatori intermedi e applicazioni: risultati generali*. Rend. Mat. Acc. Lincei, s.9, v.3 (1992) 79-101.

XI.F Edited Book and curatorship

Analysis, Partial Differential Equations and Applications. The Vladimir Maz'ya Anniversary Collection. Editors: A. Cialdea, F. Lanzara, P.E. Ricci. Operator Theory: Advances and Applications, vol. 193, Birkhäuser Verlag, Basel, 2009.

G. Fichera†. A cura di A. Cialdea, F. Lanzara, *On Stability of Solutions of Evolution Equations*, in: C. Sbordone (Ed.) *Equazioni a derivate parziali nell'opera di Gaetano Fichera*, Quaderno n. 60 Accademia Pontaniana, Giannini Editore Napoli, 69-86, 2014.

Part XII - Summary of Scientific Achievements

	Scopus	Web of Science	MathSciNet
Journal Articles	24	15	35 [◊]
Articles or Chapters in Book Series	3	2	
Total Citations	127	68	84
Average Citations	127/27=4.7	68/17=4	84/35=2.4

◊ Total Publications

	Scopus [‡]	Web of Science [†]
Hirsch (H) index	7	5
Impact Factor	21.19	16.289
Average Impact Factor	21.19/24=0.88	16.289/15= 1.09

‡ the Impact Factor was computed by using the equivalent SC=Scopus Scimago Cites/Doc.(2 years). For the articles [1], [3], [4], [5] the last SC was used. The Average Impact Factor was calculated considering the products in Scopus with available Cites/Doc.(2 years).

† the IF=Impact Factor was computed by using Web of Science Journal Citation Reports. For the articles [1] and [3] the last Impact Factor available was used. The Average Impact Factor was calculated considering the products in Web of Science published in a journal with Impact Factor.

Part XIII - Selected Publications

List of the publications selected for the evaluation. For each publication, authors, title, reference data and, if applicable, journal IF=Web of Science Impact Factor, SC=Scopus Scimago Cites/Doc.(2 years) and citations (on Scopus and Web of Science) are included.

1. F. Lanzara, E. Montefusco, *Some remarks on segregation of k species in strongly competing systems*, to appear in *Interfaces and Free Boundaries* (ArXiv 2103.06808v1 with acceptance letter).
IF2019: 0.868 - SC2019: 0.846 (LAST IMPACT FACTOR AVAILABLE).
2. F.Lanzara, V.Maz'ya, G.Schmidt, *Fast computation of elastic and hydrodynamic potentials using approximate approximations*, *Anal. Math. Phys.* (2020), 10:81.
IF2019: 2.056 - SC2019:1.843 (2020 NOT AVAILABLE) - Cit. 0 (Scopus) 0 (Web of Science)
3. F.Lanzara, V.Maz'ya, G.Schmidt, *Fast cubature of high dimensional biharmonic potential based on Approximate Approximations*, *Annali dell'Università di Ferrara* 65, (2019), 277-300.
SC2019: 0.480 - Cit. 3 (Scopus)
4. F. Lanzara, E. Montefusco, *On the limit configuration of four species strongly competing systems*, *Nonlinear Differential Equations and Applications NoDEA*, (2019) 26:19.
IF2019: 1.132 - SC2019: 1.303 - Cit. 0 (Scopus) 0 (Web of Science)

5. F. Lanzara, V. Maz'ya, *Differentiability properties of the symbol of a generalized Riesz potential with homogeneous characteristic*. J. Math. Sci. 242 (2019) 200-213. Translated into Russian in Problemy Matematicheskogo Analiza, 99, (2019), 23-33.
SC2019: 0.327 - Cit. 0 (Scopus)
6. F. Lanzara, V. Maz'ya, G. Schmidt, *A fast solution method for time dependent multidimensional Schrödinger equations*. Appl. Anal. 98 (2019) , 408-429.
IF2019: 1.107 - SC2019: 1.152 - Cit. 4 (Scopus) 1 (Web of Science)
7. F. Lanzara, V. Maz'ya, G. Schmidt, *Approximation of solutions to multidimensional parabolic equations by approximate approximations*. Appl. Comput. Harmon. Anal. 41 (2016) 749–767.
IF2016: 2.634 - SC2016: 3.651 - Cit. 9 (Scopus) 5 (Web of Science)
8. F.Lanzara, G.Schmidt, *On the computation of high-dimensional potentials of advection- diffusion operators*. Mathematika 61 (2015) 309–327.
IF2015: 0.714 - SC2015: 0.754 - Cit. 7 (Scopus) 4 (Web of Science)
9. F. Lanzara, V. Maz'ya, G. Schmidt, *Fast cubature of volume potentials over rectangular domains by approximate approximations*. Appl. Comput. Harmon. Anal. 36 (2014) 167–182.
IF2014: 2.036 - SC2014: 3.448 - Cit. 13 (Scopus) 8 (Web of Science)
10. F. Lanzara, V. Maz'ya, G. Schmidt, *On the fast computation of high dimensional volume potentials*. Math. Comp. 80 (2011) 887-904.
IF2011: 1.313 - SC2011: 1.389 - Cit. 20 (Scopus) 7 (Web of Science)
11. F. Lanzara, V. Maz'ya, G. Schmidt, *Approximate Approximations from scattered data*, J. Approx. Theory 145 (2007) 141-170.
IF2007: 0.697 - SC2007: 0.684 - Cit. 9 (Scopus) 7 (Web of Science)
12. F. Lanzara, V. Maz'ya, G. Schmidt, *Numerical Solution of the Lippmann–Schwinger Equation by Approximate Approximations*, J. Fourier Anal. Appl. 10 (2004) 645-660.
IF2004: 0.797 - SC2004: 0.800 - Cit. 12 (Scopus) 11 (Web of Science)

Rome, March 19th, 2021

Flavia Lanzara