CURRICULUM VITÆ

Marco Abate

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1. Education

June 13, 1985:	undergraduate degree in Mathematics, Università di Pisa, with a grade of 110/110 *cum laude;* advisor Prof. E. Vesentini.
July 1985:	undergraduate degree in Mathematics of the Scuola Normale Superiore of Pisa.
October 22, 1988:	Ph.D. degree in Mathematics, Scuola Normale Superiore, Pisa, advisors Proff. S. Kobayashi, E. Vesentini e J.-P. Vigué, with a grade of 70/70 *cum laude.*

• *Languages:* Italian (mother tongue), English (level C2), French (level B2), Spanish (level A1).

2. Positions

June 1, 1989–October 31, 1992:	assistant professor in the Department of Mathematics of the Università di Roma Tor Vergata, Italy.
April 1990:	visiting professor at the Washington University, St. Louis.
April 1991:	visiting professor at the Ruhr-Universität, Bochum.
November 1, 1992–October 31, 1993:	associate professor of Geometry in the Department of Mathematics of the Università di Roma Tor Vergata, Italy.
November 1, 1993–October 31, 1994:	associate professor of Geometry in the Department of Applied Mathematics of the Università di Pisa, Italy.
November 1, 1994–October 31, 1997:	full professor of Geometry in the Department of Mathematics of the Università di Ancona, Italy.
March 1996–May 1996:	visiting professor at the University of California, Berkeley, USA.
November 1, 1997–October 31, 2001:	full professor of Geometry in the Department of Mathematics of the Università di Roma Tor Vergata, Italy.
Since November 1, 2001:	full professor of Geometry in the Department of Mathematics of the Università di Pisa, Italy (on leave from January 1, 2024).
February 2004:	invited stay at the *Institut Henri Poincaré,* Paris, France.
May 2008–June 2008:	invited stay at the *Institut Mittag-Leffler,* Stockholm, Sweden.
February 2015:	invited stay at *Instituto de Matemática Pura e Aplicada (IMPA)*, Rio de Janeiro, Brazil.
May 2019:	invited stay at *Korea Institute for Advanced Study*, Seoul, South Korea.
July 2021:	*International visiting faculty* in the Chandigarh University, Garhuan, India.
Since January 2024:	Rector of the *Università degli studi "Guglielmo Marconi"*, Roma.

• I have also visited for short periods many universities and research centers in Italy and abroad. Among them: Al-Fateh University, Tripoli, Lybia; American Institute of Mathematics, Palo Alto, USA; BIRS, Banff, Canada; Bremen Universität, Germany; Centre of Excellence in Mathematical Sciences (CEMS), Almora, India; Chern Institute of Mathematics, Tianjin, China; C.I.R.M. Luminy, France; COMSATS University Islamabad, Lahore Campus, Lahore, Pakistan; ETH, Zürich, Switzerland; Fields Institute, Toronto, Canada; Hokkaido University, Sapporo, Japan; Imperial College, London, UK; Indiana University, Bloomington, USA; Institute for Advanced Study, Princeton, USA; Institute for Mathematical and Physical Sciences, Porto Novo, Benin; Jagellonian University, Kraków, Poland; Jyväskylä University, Finland; Kansas State

University, USA; Kyoto University, Japan; Lahore University of Management Sciences (LUMS), Lahore, Pakistan; Mathematical Sciences Research Institute (MSRI), Berkeley, USA; Mathematisches Forschungsinstitut Oberwolfach, Germany; National University of Singapore, Singapore; National University of Uzbekistan, Tashkent, Uzbekistan; Nesin Mathematics Village, Şirince, Turkey; Open University, Milton Keynes, UK; Postech University of Pohang, South Korea; Purdue University, USA; Rutgers University, USA; Syracuse University, USA; Stefan Banach Institute, Warsaw, Poland; The Technion, Haifa, Israel; Tribhuvan University, Kathmandu, Nepal; Tsinghua Sanya International Mathematics Forum, Sanya, China; Tulane University, New Orleans, USA; Universidade do Porto, Portugal; Universitat de Barcelona, Spain; Université de Lille, France; Université de Paris-Sud, Orsay, France; Université Toulouse III Paul Sabatier, France; University College, Dublin, Ireland; University of Amsterdam, Netherlands; University of Auckland, New Zealand; University of Bucarest, Romania; University of Cyprus, Cyprus; University of Kansas, Lawrence, USA; University of Isfahan, Iran; University of Liverpool, UK; University of Ljubljana, Slovenia; University of Michigan, Ann Arbor, USA; University of New York, Stony Brook, USA; University of Uppsala, Sweden; Urgench State University, Uzbekistan; Xiamen University, China; Zagreb University, Croatia, and more.

3. Fellowships and awards

January 1986: award *Benedetto Sciarra* for the year 1985, awarded by the Scuola Normale Superiore.

June 1986: Fellowship awarded by the Mathematics Committee of the italian Consiglio Nazionale delle Ricerche, to support my study in University of Southern California, Los Angeles (September 1986–December 1986) and in University of California, Berkeley (January 1987–June 1987).

October 1987: Research fellowship awarded by the Istituto Nazionale di Alta Matematica (INdAM), to work at the Scuola Normale Superiore of Pisa, renewed for the academical year 1988/89.

May 1989: award of the Fondazione Francesco Severi, Arezzo, for the year 1989.

May 1991: award *Giuseppe Bartolozzi* 1989, awarded by the Unione Matematica Italiana.

October 2010: I have been invited to give the 38th *William J. Spencer Lecture,* Kansas State University, USA.

4. Grants

October 1998–October 2002: leading scientist of the local unit at the University of Roma Tor Vergata of the MURST project of relevant national interest (PRIN) *Geometric properties of real and complex manifolds.*

Since November 2001: member of the local unit in the University of Pisa or in the University of Roma Tor Vergata of several PRIN projects; the last one (currently ongoing) is called *Real and Complex Manifolds: Geometry and Holomorphic Dynamics.*

February 2003–October 2006: leading scientist of the local unit at the Università di Pisa of the FIRB project funded by the italian MIUR *Dynamics and group actions on complex domains and manifolds.*

January 2006–December 2007: Principal investigator for the INdAM project *Local discrete dynamics in one, several, and infinitely many variables.*

Since January 2013: leading scientist of the local unit at the University of Pisa of the *European Several Complex Variables Consortium E-SCV.*

March 2015–March 2016: Principal investigator for the Progetto di Ricerca di Ateneo (University Research Project) of the University of Pisa *Connessioni fra dinamica olomorfa, teoria ergodica e logica matematica nei sistemi dinamici (Connections among holomorphic dynamics, ergodic theory and mathematical logic in dynamical systems).*

September 2016–July 2018: participant as expert to the Erasmus+ European project "CHEER II' — Consolidating higher education experience of reform: norms, networks and good practice in Italy".

March 2017–March 2019: Principal investigator for the Progetto di Ricerca di Ateneo (University Research Project) of the University of Pisa *Sistemi dinamici in analisi, geome-*

tria, logica e meccanica celeste (Dynamical systems in analysis, geometry, logic and celestial mechanics).

September 2020-August 2023: participant as expert to the Erasmus+ European project "RISHII — Resources for Internationalisation of Higher Education Institutions in India".

February 2021–January 2024: work package leader for the Erasmus+ Capacity Building European project "APPRAIS — Governance, quality accountability: a piloting reform process in Kurdistan region of Iraq".

March 2021–February 2023: team leader for the Erasmus+ Capacity Building European project Erasmus+ "ENLIVEN — Enhanced learning and teaching in international virtual environments".

November 2021–December 2023: work package leader in the European Universities consortium "Circle U.", coordinated by the University of Oslo, Norway.

February 2023–December 2023: work package leader for the Erasmus+ Capacity Building European project Erasmus+ "DIRASA — Définition d'un renouvellement de la gouvernance de la recherche en Tunisie".

5. Academic responsibilities

November 1997–October 2001: member of the council board of the Ph.D. Program in *Mathematics* of the University Roma Tor Vergata.

Since November 2001: member of the council board of the Ph.D. Program in *Mathematics* of the University of Pisa.

October 2002–October 2005: director of undergraduate studies in Mathematics, Università di Pisa, Italy.

November 2006–October 2009: member of the council board of the Ph.D. Program in *Cultural Memory and European Heritage* of the University of Pisa.

January 2008–December 2013: member of the Scientific Council and of the Executive Committee of CIME (Centro Internazionale Matematico Estivo — Mathematical Summer International Center).

April 2008–September 2012: national coordinator of the Italian degree courses in Mathematics.

July 2009–May 2015: member elected of the Scientific Committee of the Unione Matematica Italiana (UMI).

November 2010–October 2015: head of the Department of Mathematics of the University of Pisa.

January 2011–December 2015: member of the Steering Council of the Centro di Ricerca Matematica "Ennio de Giorgi", Pisa.

December 2011–June 2013: vice president of the Group of Evaluation Experts of the Mathematics/Computer Science area for the Italian research evaluation exercise VQR 2004-2010.

October 2012–October 2015: member of the Board of Directors of the Conferenza Nazionale dei Presidenti e dei Direttori delle Strutture Universitarie di Scienze e Tecnologie – Con.Scienze (National Conference of Presidents and Directors of University Structures in Science and Technology).

February 2013–February 2021: member elected for the Mathematics/Computer Science area of the Italian *National University Council* (CUN).

July 2013–July 2016: member of the Scientific Council of *Consorzio Interuniversitario Sistemi Integrati per l'Accesso* (CISIA; *Interuniversity Consortium on Integrated Systems for Admittance*).

February 2015–May 2019: coordinator of the 3rd Permanent Committee of CUN, on "Politiche per la valutazione, la qualità e l'internazionalizzazione della formazione universitaria" (Teaching Committee).

September 2015–January 2017: president of the Group of Evaluation Experts of the Mathematics/Computer Science area for the Italian research evaluation exercise VQR 2011-2014.

November 2016–October 2022: Vice Rector for Teaching of the University of Pisa.

July 2018–June 2020: member of the Scientific-Technical Committee of MIUR (Italian Ministry for Education, University and Research) for the evaluation of projects in *Piano*

	lauree scientifiche (*Scientific degrees plan*) and in *Piano per l'orientamento e il tutorato* (*Advising and tutoring plan*).
October 2019–February 2022:	coordinator of the workgroup on the European Space of Higher Education in the *Laboratorio Permanente della Didattica* (*Permanent Laboratory on Teaching*) of the Fondazione CRUI (*Foundation of the Italian Conference of University Rectors*).
November 2020–October 2022:	*deputy dean* of the *Zhejiang Ocean University-University of Pisa Marine Graduate School,* Zhoushan City, Cina.
April 2021–March 2024:	member of the Steering Board of ASDUNI, the Associazione Italiana per la promozione e lo sviluppo della Didattica, dell'Apprendimento e dell'Insegnamento in Università (*Italian Association for the Development and Promotion of Didactics, Learning and Teaching in Universities*).
July 2021 – December 2023:	member of the committee for the Abilitazione Scientifica Nazionale (*National Scientific Qualification*) in Geometry and Algebra.
Since October 2021:	member of the consulting committee for the Ministry of University and Research and the Ministry of Culture for establishing the equivalence with university degrees of degrees awarded by institution operating in fields of interests for the Ministry of Culture.
Since November 2021:	expert of ANVUR, Agenzia Nazionale di Valutazione del Sistema Universitario e della Ricerca (*Italian National Agency for the Evaluation of Universities and Research Institutes*) for the evaluation of special higher education institutions.
Since February 2022:	expert of ANVUR, Agenzia Nazionale di Valutazione del Sistema Universitario e della Ricerca (*Italian National Agency for the Evaluation of Universities and Research Institutes*) for the evaluation of degree courses.
August 2022– October 2022:	member of the managing committee of the branch of the University of Pisa in Tashkent, Uzbekistan.
March 2023 – December 2023:	president of the Evaluation Unit of the Università di Pisa.
March 2023 – December 2023:	member of the steering committee of the Coordinamento Nazionale dei Nuclei di Valutazione delle Universit Italiane (CoNVUI; National Coordinating Committee of Evaluation Units of Italian Universities).
Since January 2024:	Rector of the *Università degli Studi "Guglielmo Marconi"*, Rome, Italy.
Referee and Evaluator for:	the Italian Ministry for University and Research – MUR (PRIN, FIRB and SIR projects), the Italian evaluation agencies CIVR and ANVUR, the American *National Science Foundation*, the Hong Kong *Research Grants Council (RGC)*, the Dutch *Nederlandse Organisatie voor Wetenschappelijk Onderzoek (NWO)*, the French *Agence nationale de la Recherche (ANR)*, the Portuguese *Fundaçao para a Ciência e a Tecnologia (FCT)*, the Romanian *Consiliul Naţional al Cercetării Ştiinţifice (CNCS)*, the *Indian Academy of Science*, the European Commission (Marie Curie fellowships) and other agencies.

6. Organization of scientific congresses

May 1999:	scientific organizer of the congress *Intensive week on holomorphic dynamics,* Scuola Normale Superiore, Pisa, May 10–14, 1999.
June 2003:	scientific organizer of the congress *Dynamics in Italy,* Scuola Normale Superiore, Pisa, June 25–27, 2003.
September 2003:	scientific organizzer of the parallel section *Geometria* in the Congresso dell'Unione Matematica Italiana, University of Milano Bicocca, September 7–13, 2003.
January 2007:	scientific organizer of the workshop *Local Holomorphic Dynamics,* Centro di Ricerca Matematica "Ennio de Giorgi", January 22-26, 2007.
June 2007:	scientific organizer of the special session on *Complex Analysis and Holomorphic Dynamics* in the congress *Joint Meeting UMI-DMV*, Università di Perugia, June 18–22, 2007.

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September 2012: scientific organizer of the INdAM Congress *New trends in holomorphic dynamics*, Cortona, September 3–7, 2012.

June 2013: scientific organizer of the workshop *Parabolic renormalization,* Centro di Ricerca Matematica "Ennio de Giorgi", Pisa, June 3–7, 2013.

March 2015: member of the organizing committee of the EMS Summer School and Workshop *KAWA 6 — Komplex Analysis Weeklong School and Workshop,* Centro di Ricerca Matematica "Ennio de Giorgi", Pisa, March 22–28, 2015.

September 2015: member of the scientific committee of the *XX Congresso dell'Unione Matematica Italiana,* Siena, September 7–12, 2015.

January 2016: member of the scientific committee of the *Geometric aspects of complex dynamics,* Universidade do Porto, Porto, January 11–15, 2016.

February 2016: scientific organizer of the workshop *Dynamical systems in logic, complex analysis and ergodic theory,* University of Pisa, February 8–9, 2016.

September 2016: member of the scientific and organizing committees of the workshop *Residues and Dynamics,* Università di Pisa, 12–13 settembre 2016.

July 2017: member of the scientific committee of the school-workshop *Complex analytic geometry: residues and fixed points,* Hokkaido University, Sapporo, Japan.

May 2018: member of the scientific committee of the workshop *New methods in Finsler geometry,* Centro di Ricerca Matematica "Ennio de Giorgi", Pisa, May 21–25, 2018.

March 2019: scientific organizer of the workshop *Dynamical systems and beyond,* University of Pisa, March 25–27, 2019.

September 2022: member of the scientific committee of the INdAM Congress *New trends in holomorphic dynamics 2022,* Cortona, August 29–September 2, 2022.

June 2023: member of the scientific committee of the Summer School *Topics in Complex Dynamics, 10th edition,* Barcelona, May 29–June 3, 2023.

7. Organization of popularizing and outreach congresses

April 2005: organizer of the congress *Perché Nobel? 2004*, University of Pisa, first two weeks of April 2005.

March 2006: organizer of the congress *Perché Nobel? 2005*, University of Pisa, last week of March and first week of April 2006.

March 2007: organizer of the congress *Perché Nobel? 2006*, University of Pisa, last two weeks of March 2007.

March 2008: organizer of the congress *Perché Nobel? 2007*, University of Pisa, last week of March and first week of April 2008.

March 2009: organizer of the congress *Perché Nobel? 2008*, University of Pisa, last two weeks of March 2009.

March 2010: organizer of the congress *Perché Nobel? 2009*, University of Pisa, first two weeks of March 2010.

March 2010: member of the scientific committee of the congress *Matematica e cultura 2010*, University Ca' Foscari, Venezia, March 26–28, 2010.

March 2011: organizer of the congress *Perché Nobel? 2010*, University of Pisa, first two weeks of March 2011.

March 2011: member of the scientific committee of the congress *Matematica e cultura 2011*, Istituto Universitario di Architettura, Venezia, March 25–27, 2011.

March 2012: member of the scientific committee of the congress *Matematica e cultura 2012*, Istituto Veneto di Scienze, Lettere e Arti, Venezia, March 30–April 1, 2012.

March 2013: member of the scientific committee of the congress *Matematica e cultura 2013*, Istituto Veneto di Scienze, Lettere e Arti, Venezia, March 22–24, 2013.

March 2014: member of the scientific committee of the congress *Matematica e cultura 2014*, Istituto Veneto di Scienze, Lettere e Arti, Venezia, March 28–30, 2014.

March 2015: member of the scientific committee of the congress *Matematica e cultura 2015*, Istituto Veneto di Scienze, Lettere e Arti, Venezia, March 27–29, 2015.

March 2017: member of the scientific committee of the congress *Mathematics and culture XX,* Istituto Veneto di Scienze, Lettere e Arti, Venezia, March 31–April 2, 2017.

March 2019: member of the scientific committee of the congress *Mathematics and culture XXI*, Istituto Veneto di Scienze, Lettere e Arti, Venezia, March 29–31, 2019.

8. Editorial responsibilities

Since July 2009: *associated editor* of the *Journal of Geometric Analysis*.
Since November 2009: *editor* of the journal *Bollettino dell'Unione Matematica Italiana*.
October 2012–December 2015: member of the *advisory board* of the web journal *MaddMaths*.
Since July 2013: *associated editor* of the journal *Complex Analysis and its Synergies*.
March 2014–October 2015: *editor-in-chief* of the book series *Quaderni della Settimana Matematica*.
Referee for: *Acta Math.; Adv. Geom.; Adv. Math.; Ann. Acad. Sci. Fenn.; Ann. Scuola Norm. Sup.; Bull. Canad. Math. Soc.; Boll. Mat. Univ. Padova; C. Eur. J. Math.; Complex Var. Th. Appl.; Complex Var. Elliptic Eq.; Compos. Math.; Disc. Cont. Dyn. Syst.; Duke Math. J.; Houston Math. J.; Int. J. Math. Math. Sci.; Int. Math. Res. Notices; Int. Eq. Oper. Theory; J. Amer. Math. Soc.; J. Austr. Math. Soc.; J. Diff. Geom.; J. Europ. Math. Soc.; J. Geom. Anal.; J. Math. Anal. Appl.; J. Reine Ang. Math.; Math. Ann.; Math. Res. Letter; Math. Z.; Mich. Math. J.; Missouri Math. J.; Pac. J. Math.; Proc. Amer. Mat. Soc.; Publ. Math. Debr.; Rend. Accad. Naz. Lincei; Rend. Mat.; Trans. Am. Math. Soc.; Uzbek. Math. J.* and other journals.

9. Graduate students

– Marzia Rivi: *Local behavior of discrete dynamical systems,* Università di Firenze, Ph.D. Thesis, A.A. 1998/99.
– Laura Molino: *Local holomorphic dynamics at a non-hyperbolic fixed point,* Università di Roma Tor Vergata, Ph.D. Thesis, A.A. 2003/04.
– Jasmin Raissy: *Geometrical methods in the normalization of germs of biholomorphisms,* Università di Pisa, Ph.D. Thesis, A.A. 2009/10.
– Tiziano Casavecchia: *Rigidity of holomorphic generators of one-parameter semigroups and a non-autonomous Denjoy-Wolff theorem,* Università di Pisa, Ph.D. thesis, A.A. 2009/10.
– Matteo Ruggiero: *The valuative tree, rigid germs and Kato varieties,* Scuola Normale Superiore, Pisa, Ph.D. Thesis, A.A. 2010/11.
– Isaia Nisoli: *A general approach to Lehmann-Suwa-Khanedani index theorems: partial holomorphic connections and extensions of foliations,* Università di Pisa, Ph.D. Thesis, A.A. 2010/11.
– Fabrizio Bianchi: *Motion of Julia sets and dynamical stability in several complex variables,* Università di Pisa and Université de Toulouse Paul Sabatier, Ph.D. thesis, A.A. 2015/16.
– Karim Rakhimov: *Dynamics of geodesics for meromorphic connections on Riemann surfaces,* Università di Pisa, Ph.D. thesis, A.A. 2019/20.

• As of today, Jasmin Raissy is full professor in the Université de Bordeaux, France; Matteo Ruggiero is *maître de conference* in the Université de Paris-Diderot, France; Isaia Nisoli is assistant professor in the Universidade Federal do Rio de Janeiro, Brazil; Fabrizio Bianchi is associate professor in the Università di Pisa; and Karim Rhakimov is associate professor at the Institute of Mathematics named after V.I.Romanovsky, Tashkent, Uzbekistan.

Furthermore, I have been the advisor for 29 undergraduate theses, in the Università di Roma Tor Vergata and in the Università di Pisa.

10. Graduate and post-graduate teaching

April 1991: *Iteration theory of holomorphic maps,* short graduate course, Ruhr-Universität, Bochum, Germany.
February 1994–May 1994: *Iteration theory in one complex variable,* one semester graduate course, Università di Pisa, Italy.
July 1996: *Complex Dynamics,* post-graduate course, Scuola Matematica Interuniversitaria (SMI), Cortona, Italy.

January 1998–March 1998:	*Complex analysis*, one-semester graduate course, Istituto Nazionale di Alta Matematica (INdAM), Roma, Italy.
October 2000–January 2001:	*Introduction to discrete hyperbolic dynamical systems*, one semester graduate course, Università di Pisa, Italy.
July 2002:	*Angular derivatives in several complex variables,* short post-graduate course, in the CIME school *Real methods in complex and CR geometry,* Martina Franca, Italy.
January 2005:	*Local holomorphic dynamics*, short graduate course, Université Paul Sabatier, Toulouse, France.
September 2007:	*An introduction to local discrete holomorphic dynamics,* short post-graduate course in the *III International Course of Mathematical Analysis in Andalucia*, Universidad Internacional de Andalucia, La Rábida, Spain.
December 2007:	*An introduction to local discrete holomorphic dynamics,* short graduate course, University of Cyprus.
January 2008:	*An overview of local dynamics in several complex variables,* short graduate course, in the Graduate School *Complex Dynamics,* University of Liverpool, Great Britain.
July 2008:	*Discrete holomorphic local dynamical systems,* short post-graduate course, in the CIME school *Holomorphic dynamical systems*, Cetraro, Italy.
November 2010:	*An introduction to holomorphic dynamics,* short graduate course, Al-Fateh University, Tripoli, Libia.
May 2011:	*An introduction to local holomorphic dynamics in several variables,* short post-graduate course, in the school *Topics in complex dynamics,* IMUB, Barcelona.
December 2013:	*An introduction to holomorphic dynamics,* short graduate course, Tribhuvan University, Kathmandu, Nepal.
May 2015:	*Invariant distances in complex analysis and dynamics,* short graduate course, in the school *Aspects mtriques et dynamiques en analyse complexe,* Université de Lille, France.
November 2015:	*An introduction to holomorphic dynamics,* short graduate course, The Institute of Mathematical and Physical Sciences (IMSP), Porto-Novo, Benin.
September 2016:	*Invariant distances in complex analysis and dynamics,* short graduate course, Université de Toulouse Paul Sabatier, France.
November 2016:	short graduate course on *Invariant distances in complex analysis and dynamics,* in the school *Complex analysis: geometric and dynamical aspects,* Centre of Excellence in Mathematical Sciences (CEMS), Almora, India.
July 2017:	short graduate course on *Residues, meromorphic connections and local holomorphic dynamics* in the school-workshop *Complex analytic geometry: residues and fixed points,* Hokkaido University, Sapporo, Japan.
October 2018:	short graduate course *Invariant distances in complex analysis and dynamics,* in the workshop *Zagreb Dynamical Systems Workshop 2018,* Univeristy of Zagreb, Croatia.
October 2019:	intensive master course on *Curves and surfaces,* COMSATS University Islamabad, Lahore Campus, Lahore, Pakistan.
November 2019:	short graduate course *An introduction to holomorphic dynamics*, Urgench State University, Urgench, Uzbekistan.
February 2019:	intensive master course on *Curves and surfaces,* COMSATS University Islamabad, Lahore Campus, Lahore, Pakistan.
February–March 2022:	intensive master course on *Curves and surfaces,* COMSATS University Islamabad, Lahore Campus, Lahore, Pakistan.
October 2023:	co-teaching in intensive master course on *Differential geometry,* Lahore University of Management Sciences, Lahore, Pakistan.

Moreover I have taught more than sixty undergraduate courses in the Università di Roma Tor Vergata, Ancona and Pisa.

11. Research talks in universities, research centers and congresses

1986: Scuola Normale Superiore, Pisa, Italy, 2 talks.

1987: University of California, Berkeley, USA.
Scuola Normale Superiore, Pisa, Italy.

1988: invited talk, *Giornate di Geometria Analitica e Analisi Complessa*, Rocca di Papa, Italy.
Università della Calabria, Rende, Italy.
Università di Parma, Italy.
SISSA, Trieste, Italy.
invited talk, *Complex Analysis and Geometry VII*, CIRM, Trento, Italy.

1989: invited talk, *Summer Research Institute on Several Complex Variables and Geometry*, American Mathematical Society, Santa Cruz, USA.

1990: Università di Roma Tor Vergata, Italy, 3 talks.
Università di Pisa, Italy.
Washington University, St. Louis, USA.
Indiana University, Bloomington, USA.
Purdue University, West Lafayette, USA.
invited talk, *Minicorso sulla Trasformata di Radon*, Università della Calabria, Rende, Italy.

1991: Università di Roma Tor Vergata, Italy, 3 talks.
Bremen Universität, Bremen, Germany.
invited talk, *Congresso dell'Unione Matematica Italiana*, Catania, Italy.

1992: Università di Roma Tor Vergata, Italy.
Institute for Advanced Study, Princeton, USA.
Università di Bologna, Italy.
Scuola Normale Superiore, Pisa, Italy.
Università di Trieste, Italy.

1993: University of Michigan, Ann Arbor, USA.
invited talk, *Invariant Metrics and Related Questions in Differential Geometry and Complex Analysis*, Cortona, Italy.
Università di Pisa, Italy.

1994: Università di Ancona, Italy.
invited talk, *Complex dynamics in higher dimensions*, NSF-CNMS Regional Conference, State University of New York, Albany, USA.
invited talk, *Third Analysis Colloquium*, University of Bern, Switzerland.

1995: Università di Ancona, Italy.
Università di Firenze, Italy.
invited talk, *Summer Research Conference on Finsler Geometry*, American Mathematical Society, University of Washington, Seattle, USA.

1996: University of California, Berkeley, USA.

1997: invited talk, *International Conference on Several Complex Variables*, Postech University, Pohang, South Korea.
invited talk, *Convegno nazionale del GNSAGA*, Università di Perugia, Italy.

1998: Università di Roma Tor Vergata, Italy, 2 talks.
invited talk, *JAMI Conference on Meromorphic Mappings and Intrinsic Metrics in Complex Geometry*, John Hopkins University, Baltimore, USA.
Scuola Normale Superiore, Pisa, Italy, 2 talks.

1999: Scuola Normale Superiore, Pisa, Italy.
talk, *Reelle Methoden der Komplexen Analysis*, Mathematisches Forschungsinstitut Oberwolfach, Germany.
Tulane University, New Orleans.
invited talk, *Complex dynamics*, University of Arkansas, Fayetteville, USA.

University of Auckland, New Zealand.

Università di Roma Tor Vergata, Italy.

invited talk, *Hayama Sympossium on Several Complex Variables*, Tokyo, Japan.

2000: Università di Pisa, Italy.

Università di Roma La Sapienza, Italy.

invited talk, *Biholomorphic mappings*, American Institute of Mathematics, Palo Alto, USA.

invited talk, *Complex analysis and analytic geometry*, Cortona, Italy.

University College, Dublin, Ireland.

2001: invited talk, *Fixed point theory and its applications,* Haifa, Israel.

invited talk, *Systèmes dynamiques en plusieurs variables complexes*, CIRM, Luminy, France.

2002: Scuola Normale Superiore, Pisa, Italy.

invited talk, *Complex dynamics conference,* University of Michigan, Ann Arbor, Italy.

Centro di ricerca matematica "Ennio de Giorgi", Pisa, Italy.

2003: invited talk, *Thirteenth seminar on analysis and its applications*, University of Isfahan, Iran.

invited talk, *Dinamica in Italia*, Scuola Normale Superiore, Pisa, Italy.

invited talk, *Complex dynamics in higher dimension,* RIMS, Kyoto, Japan.

2004: invited talk, *Fifth International conference on dynamical systems and differential equations,* AIMS, California Polytechnic University, Pomona, USA.

invited talk, *2004 Beijing International Conference on Several Complex Variables*, Capital Normal University, Beijing, China.

invited talk, *Giornata di analisi complessa*, Università di Firenze, Italy.

2005: invited talk, *Journées complexes du sud*, Moissac, France.

invited talk, *Complex Analysis and Geometry XVII*, CIRM, Trento, Italy.

Jagellonian University, Kraków, Poland, 2 talks.

Centro di ricerca matematica "Ennio de Giorgi", Pisa, Italy.

University of Michigan, Ann Arbor, USA.

2006: University of Uppsala, Sweden.

University of Ljubljana, Slovenia.

invited talk, *Symposium in complex analysis, Slovenia 2006*, Kranjska Gora, Slovenia.

invited talk, *Mathematics and its applications, Joint Meeting UMI-SMF*, Torino, Italy.

2007: Université Paul Sabatier, Toulouse, France.

Kyoto University, Japan.

invited talk, *6th Congress of Romanian Mathematicians*, University of Bucarest, Romania.

Università di Roma Tor Vergata, Italy.

Università di Roma La Sapienza, Italy.

2008: Institut Mittag-Leffler, Stockholm, Sweden.

invited talk, *Algebraic Geometry, D-modules, Foliations and their interactions*, University of Buenos Aires, Argentina.

invited talk, *Workshop on Holomorphic iteration, semigroups and Loewner chains*, INdAM, Roma, Italy.

invited talk, *Workshop on Geometry of projective varieties,* INdAM, Roma, Italy.

2009: Institut de Matemàtica, Universitat de Barcelona, Spain.

invited talk, *Giornate di geometria 2*, Università di Pavia, Italy.

invited talk, *Multivariable complex dynamics*, BIRS, Banff, Canada.

Centro di Ricerca Matematica "Ennio de Giorgi", Pisa, Italy, 2 talks.

Université de Paris-Sud, Orsay, France.

invited talk, *7th ISAAC Congress*, Imperial College, London, Great Britain.

invited talk, *Midwest several complex variables conference,* Purdue University, West Lafayette, USA.

Università di Pisa, Italy.

ETH, Zurich, Switzerland.

2010: invited talk, *Komplex Analysis Winter Workshop*, Albi, France.

Korteweg-de Vries Institute for Mathematics, University of Amsterdam, Netherlands.

Università di Milano Bicocca, Italy.

invited talk, *ICM 2010 Satellite conference on Various aspects of dynamical systems*, The Maharaja Sayajirao University of Baroda, Vadodara, India,

invited talk, *AMS Sectional meeting Fall 2010*, Syracuse University, Syracuse, USA.

Rutgers University, New Brunswick, USA.

38th William J. Spencer Lecture, Department of Mathematics, Kansas State University, Manhattan, USA.

invited talk, *Tenth Prairie Analysis Seminar*, University of Kansas, Lawrence, USA.

2011: Institut de Matemàtica, Universitat de Barcelona, Spain.

invited talk, *Workshop in Several Complex Variables*, Korteweg-de Vries Institute for Mathematics, Amsterdam, Netherlands.

2012: invited talk, *Geometria in Bicocca*, Università di Milano Bicocca, Italy.

invited talk, *58th workshop: Variational Analysis and Applications*, Centro e Fondazione Ettore Majorana per la Cultura Scientifica, Erice, Italy.

invited talk, *Interactions between continuous and discrete holomorphic dynamical systems*, BIRS, Banff, Canada.

invited talk, *9th Korean Conference on Several Complex Variables*, GyeongJu, South Korea.

Université Paul Sabatier, Toulouse, France.

2013: invited talk, *2013 Joint Mathematics Meetings*, American Mathematical Society, San Diego, USA.

invited talk, *KAWA IV*, Albi, France.

invited talk, *Varietà reali e complesse: geometria, topologia e analisi armonica*, Scuola Normale Superiore, Pisa, Italy.

Centro di Ricerca Matematica "Ennio de Giorgi", Pisa, Italy.

invited talk, *Complex analysis and Dynamical systems VI*, ORT Braude College, Nahariya, Israel.

invited talk, *NORDAN 2013*, Svolvær, Norway.

invited talk, *Workshop in real and complex dynamics*, ICTP, Trieste.

invited talk, *Parabolic renormalization*, Centro di Ricerca Matematica "Ennio de Giorgi", Pisa, Italy.

invited talk, *Workshop in function theory and complex variables*, Şirince, Turkey.

invited talk, *Complex analysis and related topics*, Ivan Franko National University, L'viv, Ukraine.

2014: Jyväskylä University, Jyväskylä, Finland.

invited talk, *TSIMF Symposium on Complex Analysis and Complex Dynamics*, Tsinghua Sanya International Mathematics Forum, Sanya, China.

invited talk, *First Joint International Meeting RSME-SCM-SEMA-SIMAI-UMI*, University of the Basque County, Bilbao, Spain.

Scuola Normale Superiore, Pisa, Italy.

invited talk, *KSCV Symposium X: International conference on Complex Analysis and Geometry (ICM 2014 Satellite Conference)*, GyeongJu, South Korea.

invited talk, *Complex geometry, analysis and foliations*, ICTP, Trieste.

2015: IMPA, Rio de Janeiro, Brazil.

invited talk, *Conference on Dynamical Systems*, ICTP, Trieste.

Stefan Banach Institute, Warsaw, Poland.

2016: invited talk, *Geometric aspects of complex dynamics*, Universidade do Porto, Porto, Portugal.

invited talk, *Dynamical systems in logic, complex analysis and ergodic theory*, Università di Pisa, Italy.

National University of Uzbekistan, Tashkent, Uzbekistan.

invited talk, *Parametric problems in analytic dynamics*, Imperial College, London, UK.

invited talk, *First joint meeting Brazil-Italy in Mathematics*, IMPA, Rio de Janeiro, Brazil.

invited talk, *Geometric function theory in higher dimension*, workshop INdAM, Cortona, Italy.

Università di Parma, Italy.

2017: invited talk, *First Joint IMU-INdAM Conference in Analysis* Tel Aviv, Israel.

invited talk, *Second USA-Uzbekistan conference*, Urgench, Uzbekistan.

2018: invited talk, *Conference on Riemann-Finsler Geometry and Related Topics,* Xiamen University, Xiamen, Cina.
Hanoi National University of Education, Hanoi, Vietnam.

2019: Università di Roma Tor Vergata, Italy.
invited talk, *Mini-workshop on several complex variables,* Korea Institute for Advanced Study, Seoul, South Korea.

2020: Weizmann Institute of Science, Rehovot, Israele.

2021: Università di Roma Tor Vergata, Italy.
invited talk, *Real and complex manifolds,* Scuola Normale Superiore, Pisa.
two invited talks, *International faculty development meeting,* University of Chandigarh, Chandigarh, India.
invited talk, *Gromov hyperbolicity and negative curvature in Complex Analysis*, workshop INdAM, Cortona.

2022: invited talk, *Transseries and dynamical systems,* Fields Institute, Toronto, Canada.
invited talk, *Holomorphic semigroups in Rome,* Università di Roma Tor Vergata.
Open University, Milton Keynes, UK.

2023: Università di Pisa.
National University of Singapore, Singapore.

12. Popularizing and outreach talks

2003: *Scrivere Matematica nel fumetto,* invited talk, *Matematica e cultura VII,* Università di Ca' Foscari, Venezia, Italy.

2005: *Matematica e fumetti,* Scuola Normale Superiore, Pisa, Italy.
Matematica e algoritmi, Biblioteche di Roma, Italy.
Évariste et Héloïse, ovvero come scrivere una storia ispirata a Galois?, invited talk, *Matematica e cultura IX*, Università di Ca' Foscari, Venezia, Italy.
Perché Michael Atiyah e Isadore Singer hanno ricevuto il Premio Abel 2004?, invited talk, *Perché Nobel? 2004*, Università di Pisa, Italy.
Évariste et Héloïse, ovvero come scrivere una storia ispirata a Galois?, SISSA, Trieste, Italy.
Évariste et Héloïse, ovvero come scrivere una storia ispirata a Galois?, invited talk, *Venezia a Roma*, Università di Roma La Sapienza, Italy.
Leonardo Pisano, il Fibonacci, Centro Servizi Montipisani, Calci, Italy.

2006: *Il girasole di Fibonacci,* invited talk, *Matematica e cultura X,* Università di Ca' Foscari, Venezia, Italy.

2007: *L'autobiografia riluttante di G.H. Hardy,* invited talk, *Matematica e cultura XI,* Università di Ca' Foscari, Venezia, Italy.
Perché Lennart Carleson ha ricevuto il Premio Abel 2006?, invited talk, *Perché Nobel? 2006*, Università di Pisa, Italy.
Il girasole di Fibonacci, Università di Bologna, Italy.

2008: *Il linguaggio della Matematica,* Università di Roma Tor Vergata, Italy.
L'autobiografia riluttante di G.H. Hardy, Centro di Ricerca Matematica "Ennio de Giorgi", Pisa, Italy.

2009: *Prezzi nel caos,* invited talk, *Matematica e cultura XII,* Università di Ca' Foscari, Venezia, Italy.
Prezzi nel caos, Università di Trieste, Italy.

2010: *Quando il cielo ci cade sulla testa,* invited talk, *Matematica e cultura 2010,* Università di Ca' Foscari, Venezia, Italy.

2011: *I nodi di Lorenz,* invited talk, *Matematica e cultura 2011,* Istituto Universitario di Architettura di Venezia, Italy.
Quando il cielo ci cade sulla testa, Scuola di orientamento preuniversitario, Quarrata, Italy.

2012: *Perché John Milnor ha vinto il Premio Abel 2011?,* invited talk, *Perché Nobel? 2012,* Università di Pisa, Italy.

Sfere esotiche e John Milnor, invited talk, *Matematica e cultura 2012*, Istituto Veneto di Scienze, Lettere e Arti, Venezia, Italy.

Curve annodate e sfere esotiche, Olimpiadi della Matematica, Cesenatico, Italy.

2013: *Alla ricerca delle radici perdute,* invited talk, *Matematica e cultura 2013*, Istituto Veneto di Scienze, Lettere e Arti, Venezia, Italy.

2014: *Arte frattale,* invited talk, *Matematica e cultura 2014*, Istituto Veneto di Scienze, Lettere e Arti, Venezia, Italy.

2016: *Il girasole di Fibonacci,* invited talk, *Fibonacci Day,* Università di Pisa, Italy.

2017: *How to prevent crimes using earthquakes,* invited talk, *Matematics and Culture XX,* Istituto Veneto di Scienze, Lettere e Arti, Venezia, Italy.

2018: *Curve annodate e sfere esotiche,* invited talk, *Dalle idee di Gauss e di Riemann alla fisica dell'universo,* meeting for high-school teachers, Marina di Massa, Italy.

2019: *Geometric origami,* invited talk, *Matematics and Culture XXI,* Istituto Veneto di Scienze, Lettere e Arti, Venezia, Italy.

Origami geometrico, invited talk, *Venezia a Roma,* University of Roma Sapienza, Italy.

How to prevent crimes using earthquakes, COMSATS University Islamabad, Lahore Campus, Lahore, Pakistan.

Origami geometrico, University of Padua, Italy.

2020: *Il girasole di Fibonacci,* Comune di Pisa, Italy

2021: *Cosa fanno i matematici all'università?,* Department of Mathematics, University of Pisa.

Il girasole di Fibonacci, Comune di San Giovanni Valdarno, Italy.

2023: *Il girasole di Fibonacci,* invited talk, *Matematica oltre i banchi,* Universit'a di Milano Bicocca, Italy.

In search of lost roots, Lahore University of Management Sciences, Lahore, Pakistan.

13. University management talks

2012: *La compilazione della scheda unica annuale (SUA)*, invited talk, meeting on the AVA procedure, ANVUR and University of Palermo, November 2012.

2014: *La valutazione fra formazione e ricerca,* invited talk, *Il contributo dell'Interconferenza all'analisi delle criticità del sistema universitario,* Interconferenza Nazionale dei Dipartimenti, Roma, October 2014.

2015: *Valutazione e qualità dei corsi di studio,* invited talk, *Assicurazione della qualità e accreditamento: implementazione a livello nazionale (AVA) dell'approccio europeo (ESG),* CRUI, Roma, May 2015.

Gli ordinamenti dei corsi di studio, invited talk, University of Foggia, November 2015.

2016: *The Italian University System,* invited talk, National University of Uzbekistan, Tashkent, and Urgench State University, Urgench, Uzbekistan, May 2016.

Struttura dei corsi di studio universitari in Italia, invited talk, Albanian Ministry of Education, Tirana, Albania, October 2016.

Le problematiche generali della formazione e reclutamento degli insegnanti per le materie scientifiche, invited talk, *Formazione iniziale e reclutamento degli insegnanti,* Con.Scienze, Rome, October 2016.

2017: *La formazione insegnanti dopo la l. 107/15,* invited talk , *La matematica nella società in rapida evoluzione,* UMI-CIIM, Bari, October 2017.

Una proposta per l'orientamento universitario, invited talk, *Orientamento e accesso all'università,* CISIA, Napoli, October 2017. item *La classe concorsuale A-28 Matematica e Scienze: il punto di vista del CUN,* invited talk *L'insegnamento di matematica e scienze alla scuola secondaria di primo grado,* UMI-CIIM, Roma, December 2017.

Evoluzione della composizione di genere dal 2000 a oggi nell'area di Ingegneria invited talk, final meeting of the European project TRIGGER, Pisa, December 2017.

2018: *L'offerta formativa universitaria,* invited talk, *L'università forma il futuro,* CUN, February 2018.

I problemi della valutazione anche in riferimento ai grandi progetti internazionali, invited talk *Le discipline glottologico-linguistiche tra ricerca e didattica, oggi,* University of Udine, February 2018.

Una proposta di manutenzione del sistema delle classi dei corsi di studio, invited talk, *Presentazione del modello di aggiornamento e razionalizzazione della classificazione dei saperi accademici e del sistema delle classi dei corsi di studio*, CUN, Roma, May 2018.

Una proposta di manutenzione del sistema delle classi dei corsi di studio, invited talk, University of Sassari, June 2018.

invited participation to a round table in the congress *Innovazione didattica universitaria e strategie degli atenei italiani*, Università di Bari, Ottobre 2018.

2019: *La proposta CUN di nuove classi di corsi di studio*, invited talk, *Quarta conferenza nazionale sulla formazione superiore in elettronica,* University of Roma Tor Vergata, February 2019.

PLS e POT: una strategia comune per l'orientamento, invited talk, *Strumenti digitali e orientamento agli studi universitari*, CISIA, Roma, April 2019.

Rapporto fra scuola e università: il punto di vista del Consiglio Universitario Nazionale, invited talk, *105º Congresso Nazionale della Società Italiana di Fisica*, University of L'Aquila, September 2019.

2020: *L'azione del Consiglio Universitario Nazionale per la formazione insegnanti*, invited talk, *Professione insegnante: quali strategie per la formazione?*, University of Naples Federico II, June 2020.

Vision di ateneo e formazione dei neoassunti, invited talk, *Didattica, riconoscimento professionale e innovazione in università*, University of Bari, June 2020.

L'esperienza di faculty development nell'Università di Pisa, talk, *Faculty development per l'innovazione didattica universitaria*, University of Genova, October 2020.

2021: *Micro-credenziali nel sistema universitario italiano*, invited talk, *Micro-credenziali: università, regioni, imprese e ITS a confronto*, Bruxelles, March 2021.

E-learning nell'Università di Pisa pre e post Covid, invited talk, *Extra-Learning*, TRIO, Firenze, May 2021.

Virtualizzazione di attività pratiche e laboratoriali (anche per il post Covid), talk, *Le trasformazioni sulla didattica in atto nell'Università Post COVID*, CRUI, Roma, June 2021.

Micro-credenziali nel sistema universitario italiano, invited talk, University of Naples Federico II, July 2021.

Classi, interclassi e professionalizzanti: istruzioni per l'uso, invited talk, University of Naples Federico II, July 2021.

Classi di corso di studio e docenti di riferimento: istruzioni per l'uso e ultime novità, invited talk, University of Palermo, September 2021.

2022: *Il Diploma Supplement: istruzioni per l'uso*, invited talk, University of Naples Federico II, February 2022.

L'internazionalizzazione dei corsi di studio, Universities of Cagliari, Pavia, Piemonte orientale and Pisa, May-June 2022.

Qualifications frameworks and program design according to ECTS, invited talk, *InfoDay Bologna Process*, Università di Bologna, February 2022.

Il manager didattico nel contesto dipartimentale: dal progetto Campus One a oggi, con uno sguardo sul domani, invited *lectio magistralis*, *Primo Forum Nazionale Comenio D&M*, October 2022.

2023: *Sustainable education*, invited talk, *Italian and French Universities in the European Universities Initiative*, Università di Torino, March 2023.

14. Main research achievements

In this section I shall briefly list my main research achievements; the next section contains a more detailed description of my research work. The numbers in square brackets refer to the list of publications.

14.1. Holomorphic dynamical systems.

– The complete description of the dynamics of holomorphic self-maps of complex taut manifolds and of convex and pseudoconvex domains ([1.6, 1.11, 3.1, 1.43], the latter in collaboration with J. Raissy).

– The development of a general procedure for reducing the study of the local dynamics of a germ with non-diagonalizable differential to the study of the local dynamics of a related germ with diagonalizable differential ([1.24]).

– A Leau-Fatou flower theorem for bidimensional holomorphic germs tangent to the identity ([1.25]).

– The study of the dynamics of homogeneous vector fields, providing in particular the first example of description of the local dynamics in a full neighbourhood of the fixed point for a substantial class of examples of germs tangent to the identity ([1.35], in collaboration with F. Tovena).

14.2. Complex differential geometry.

– The development of the global differential geometry of complex Finsler manifolds, and in particular the classification of complete Finsler manifolds with constant nonnegative holomorphic sectional curvature, and the study of the geometry of complete Finsler manifolds with constant negative holomorphic sectional curvature ([1.18, 1.20, 3.2], in collaboration with G. Patrizio).
– The discovery of several index theorems for holomorphic self-maps having positive dimensional fixed point set, and the development of a general framework encompassing in a unified theory index theorems for both holomorphic foliations and holomorphic self-maps ([1.29, 1.31], in collaboration with F. Bracci and F. Tovena).
– The study of the asymptotic behavior of geodesics for meromorphic connections on Riemann surfaces ([1.35], in collaboration with F. Tovena, and [1.46], in collaboration with F. Bianchi).

14.3. Geometric function theory and geometric analysis of several complex variables.

– The study of the boundary behavior of the Kobayashi distance and of complex geodesics in strongly pseudoconvex domains ([1.3, 3.1]).
– The generalization to domains in several complex variables of the classical one-dimensional Lindelöf principle and Julia-Wolff-Carathéodory theorem about the boundary behavior of holomorphic maps and their derivatives ([1.9, 2.3, 1.23, 2.13, 1.27], the latter in collaboration with R. Tauraso).
– The geometric characterization of Carleson measures for weighted Bergman spaces in strongly pseudoconvex domains, with application to the study of mapping properties of Toeplitz operators ([1.36, 1.39, 2.25, 1.47, 1.48], in collaboration with S. Mongodi, J. Raissy and/or A. Saracco).

PUBLICATIONS
Marco Abate

1. Research papers

[1.1]   *Automorphism groups of the classical domains, I*. Rend. Acc. Naz. Lincei **79** (1985), 25–30.

[1.2]   *Automorphism groups of the classical domains, II*. Rend. Acc. Naz. Lincei **79** (1985), 127–131.

[1.3]   *Boundary behavior of invariant distances and complex geodesics*. Rend. Acc. Naz. Lincei **80** (1986), 100–106.

[1.4]   *Orbit structure of the non-compact hermitian symmetric spaces*. Rend. Circ. Mat. Palermo **36** (1987), 241–280.

[1.5]   *Annular bundles*. Pac. J. Math. **134** (1988), 1–26.

[1.6]   *Horospheres and iterates of holomorphic maps*. Math. Z. **198** (1988), 225–238.

[1.7]   *Converging semigroups of holomorphic maps*. Rend. Acc. Naz. Lincei **82** (1988), 223–227.

[1.8]   *Common fixed points of commuting holomorphic maps*. Math. Ann. **283** (1989), 645–655.

[1.9]   *The Lindelöf principle and the angular derivative in strongly convex domains*. J. Anal. Math. **154** (1990), 189–228.

[1.10] With J.-P. Vigué: *Common fixed points in hyperbolic Riemann surfaces and convex domains*. Proc. Am. Math. Soc. **112** (1991), 503–512.

[1.11] *Iteration theory, compactly divergent sequences and commuting holomorphic maps*. Ann. Scuola Norm. Sup. Pisa **18** (1991), 167–191.

[1.12] *The infinitesimal generator of semigroups of holomorphic maps*. Ann. Mat. Pura Appl. **161** (1992), 167–180.

[1.13] With G. Patrizio: *Uniqueness of complex geodesics and characterization of circular domains*. Man. Math. **74** (1992), 277–297.

[1.14] With L. Geatti: *Cohomogeneity 2 hyperbolic acyclic Stein manifolds*. Int. J. Math. **3** (1992), 591–608.

[1.15] With P. Heinzner: *Holomorphic actions on contractible domains without fixed points*. Math. Z. **211** (1992), 547–555.

[1.16] *A characterization of hyperbolic manifolds*. Proc. Am. Math. Soc. **117** (1993), 789–793.

[1.17] *Iteration of holomorphic families*. Rend. Ist. Mat. Trieste **26** (1994), 141–150.

[1.18] With G. Patrizio: *Holomorphic curvature of Finsler metrics and complex geodesics*. J. Geom. Anal. **6** (1996), 341–364.

[1.19] *A characterization of the Chern and the Bernwald connections*. Houston J. Math. **22** (1996), 701–717.

[1.20] With G. Patrizio: *Kähler Finsler metrics with constant holomorphic curvature*. Int. J. Math. **8** (1997), 169–186.

[1.21] *When is a linear operator diagonalizable?*. Amer. Math. Monthly **104** (1997), 824–830.

[1.22] With G. Patrizio: *Isometries of the Teichmüller metric*. Ann. Sc. Norm. Sup. Pisa **26** (1998), 437–452.

[1.23] *The Julia-Wolff-Carathéodory theorem in polydisks*. J. Analyse Math. **74** (1998), 275–306.

[1.24] *Diagonalization of non-diagonalizable discrete holomorphic dynamical systems*. Amer. J. Math. **122** (2000), 757–781.

[1.25] *The residual index and the dynamics of holomorphic maps tangent to the identity*. Duke Math. J. **107** (2001), 173–207.

[1.26] *Basins of attraction in quadratic dynamical systems with a Jordan fixed point*. Nonlinear Anal. **51** (2002), 271–282.

[1.27] With R. Tauraso: *The Lindelöf principle and angular derivatives in convex domains of finite type*. J. Austr. Math. Soc. **73** (2002), 221–250.

[1.28] With F. Tovena: *Parabolic curves in* $\mathbf{C}^3$. Abstr. Appl. Anal. **2003** (2003), 275–294.

[1.29] With F. Bracci and F. Tovena: *Index theorems for holomorphic self-maps*. Ann. of Math. **159** (2004), 819–864.

[1.30] With F. Bracci: *Ritt's theorem and the Heins map in hyperbolic complex manifolds*. Science in China, Ser. A **48 Suppl.** (2005), 238–243.

[1.31] With F. Bracci and F. Tovena: *Index theorems for holomorphic maps and foliations*. Indiana Univ. Math. J. **57** (2008), 2999–3048.

[1.32] With J.-P. Vigué: *Isometries for the Carathéodory metric*. Proc. Amer. Math. Soc. **136** (2008), 3905–3909.

[1.33] With F. Bracci and F. Tovena: *Embeddings of submanifolds and normal bundles*. Adv. Math. **220** (2009), 620–656.

[1.34] With F. Bracci, Manuel D. Contreras, S. Díaz-Madrigal: *The evolution of Loewner's differential equations*. Newsletter Eur. Math. Soc. 78 (2010), 31–38.

[1.35] With F. Tovena: *Poincaré-Bendixson theorems for meromorphic connections and holomorphic homogeneous vector fields*. J. Diff. Eq. **251** (2011), 2612–2684.

[1.36] With A. Saracco: *Carleson measures and uniformly discrete sequences in strongly pseudoconvex domains*. J. London Math. Soc. **83** (2011), 587–605.

[1.37] Con J. Raissy: *Backward iteration in strongly convex domains*. Adv. Math. **228** (2011), 2837-2854. *Corrigendum:* Adv. Math. **369**, (2020), 107165.

[1.38] *Open problems in local discrete holomorphic dynamics*. Anal. Math. Phys. **1** (2011), 261–287.

[1.39] With J. Raissy and A. Saracco: *Toeplitz operators and Carleson measures in strongly pseudoconvex domains*. J. Funct. Anal. **263** (2012), 3449–3491.

[1.40] With F. Bracci, T. Suwa and F. Tovena: *Localization of Atiyah classes*. Rev. Mat. Iberoam. **29** (2013), 547–578.

[1.41] With J. Raissy: *Formal Poincaré-Dulac renormalization for holomorphic germs*. Disc. Cont. Dyn. Syst. **33** (2013), 1773–1807.

[1.42] With A. Abbondandolo and P. Majer: *Stable manifolds for holomorphic automorphisms*. J. Reine Ang. Math. **690** (2014), 217–247.

[1.43] With J. Raissy: *Wolff-Denjoy theorems in non-smooth convex domains*. Ann. Mat. Pura Appl. **193** (2014), 1503–1518.

[1.44] With F. Balestri, M. Cappiello, A. Del Corso, R. Moschini, U. Mura, R. Rotondo: *Modulation of aldose reductase activity by aldose hemiacetals*. Biochim. Biophys. Acta **1850** (2015), 2329–2339.

[1.45] With J. Raissy: *A Julia-Wolff-Carathéodory theorem for infinitesimal generators in the unit ball*. Trans. Amer. Math. Soc. **368** (2016), 5415–5431.

[1.46] With F. Bianchi: *A Poincaré-Bendixson theorem for meromorphic connections on compact Riemann surfaces*. Math. Z. **282** (2016), 247–272.

[1.47] With J. Raissy: *Skew Carleson measures in strongly pseudoconvex domains*. Compl. Anal. Oper. Th. **13** (2019), 405–429.

[1.48] With S. Mongodi and J. Raissy: *Toeplitz operators and skew Carleson measures for weighted Bergman spaces on strongly pseudoconvex domains*. J. Operator Th. **84** (2020), 339–364.

[1.49] *Multipoint Julia theorems*. Rend. Licei Mat. Appl. **32** (2021), 593–625.

[1.50] With A. Christodoulou: *Random iteration on hyperbolic Riemann surfaces*. Annali Mat. Pura Appl. **201** (2022), 2021–2035.

[1.51] With I. Spada, V. Giordano, F. Chiarello, F.M. Dovetto, G. Fantoni: *Tracing topic evolution in higher education: a text mining study on Italian universities*. Studies in Higher Education (2023), 1–19 https://doi.org/10.1080/03075079.2023.2284813.

2. Proceedings

[2.1] *Iterates and semigroups on taut manifolds.* In **Atti delle Giornate di Geometria Analitica e Analisi Complessa, Rocca di Papa, 1988,** Editel, Cosenza, 1990, pp. 3–13.

[2.2] *Iteration theory on weakly convex domains.* In **Seminar in complex analysis and geometry 1988,** Editel, Cosenza, 1990, pp. 3–16.

[2.3] *Angular derivatives in strongly pseudoconvex domains.* Proc. Symp. Pure Math. **52,** Part 2 (1991), 23–40.

[2.4] *The complex geodesics of non-compact hermitian symmetric spaces.* In **Seminari di Geometria 1991–1993,** Università di Bologna, 1994, pp. 1–18.

[2.5] With G. Patrizio: *A characterization of convex circular domains.* In **Proceedings of Complex Analysis and Applications, 1991,** Bulgarian Academy of Sciences, Sofia, 1994, pp. 1–7.

[2.6] With G. Patrizio: *Complex geodesics and Finsler metrics.* In **Topics in Complex Analysis,** Banach Center Publications, Warszawa, 1995, pp. 11-25.

[2.7] With G. Patrizio: *Finsler metrics of constant curvature and the characterization of tube domains.* In **Finsler Geometry,** Contemp. Math. 196, American Mathematical Society, Providence, 1996, pp. 101–107.

[2.8] With G. Patrizio: *Complex Finsler metrics.* In **Geometry and analysis on complex manifolds,** Eds. T. Mabuchi, J. Noguchi and T. Ochiai, World Scientific Publications, Singapore, 1994, pp. 1–38.

[2.9] With G. Patrizio: *Equazione di Monge-Ampère omogenea complessa e metriche di Finsler.* In **Seminari di Geometria 1994–1995,** Università di Bologna, 1996, pp. 1–25.

[2.10] With T. Aikou and G. Patrizio: *Preface for Complex Finsler Geometry.* In **Finsler Geometry,** Contemp. Math. 196, American Mathematical Society, Providence, 1996, pp. 97–100.

[2.11] With R. Tauraso: *The Julia-Wolff-Carathéodory theorem(s).* Contemp. Math. **222** (1999), 161–172.

[2.12] With G. Patrizio: *Convex-like properties of the Teichmüller metric.* Contemp. Math. **222** (1999), 149–159.

[2.13] *Angular derivatives in several complex variables.* In **Real methods in complex and CR geometry,** Eds. D. Zaitsev, G. Zampieri, Lect. Notes in Math. 1848, Springer, Berlin, 2004, pp. 1–47.

[2.14] *Discrete local holomorphic dynamics.* In **Proceedings of 13th Seminar on Analysis and Its Applications, Isfahan 2003,** Eds. S. Azam et al., University of Isfahan, Iran, 2005, pp. 1–32.

[2.15] *Holomorphic classification of 2-dimensional quadratic maps tangent to the identity.* Sūrikaisekiken-kyūsho Kōkyūroku **1447** (2005), 1–14.

[2.16] With F. Tovena: *Formal classification of holomorphic maps tangent to the identity.* Disc. Cont. Dyn. Sys., Suppl. 2005 1-10.

[2.17] *A general approach to Camacho-Sad-like index theorems.* In **Proceedings of the 6th Congress of Romanian Mathematicians,** Publishing House of the Romanian Academy, Bucarest, 2007, pp. 83–92.

[2.18] *An introduction to local discrete holomorphic dynamics.* In **Advanced courses of mathematical analysis III,** Eds. J.M. Delgado Sánchez and T.D. Benavides, World Scientific, Honk Kong, 2008, pp. 1–27.

[2.19] *Discrete holomorphic local dynamical systems.* In **Holomorphic dynamical systems,** Eds. G.Gentili, J. Guénot, G. Patrizio, Lect. Notes in Math. 1998, Springer, Berlin 2010, pp. 1–55.

[2.20] *Homogeneous vector fields and meromorphic connections.* In **Progress in analysis and its applications,** Eds. M. Ruzhansky and J. Wirth, World Scientific, Hong Kong, 2010, pp. 523–529.

[2.21] *Index theorems for meromorphic self-maps of the projective space.* In **Frontiers in complex dynamics,** Eds. A Bonifant, M. Lyubich, S. Sutherland, Princeton University Press, Princeton, 2014, pp. 451–460.

[2.22] With F. Bracci: *Common boundary regular fixed points for holomorphic semigroups in strongly convex domains.* In **Proceedings of the International Conference Complex Analysis and Dynamical Systems VI,** Contemp. Math. 667 (2016), pp. 1–14.

[2.23] *Fatou flowers and parabolic curves.* In **Complex Analysis and Geometry,** Eds. F. Bracci, J. Byun, H. Gaussier, K. Hirachi, K.-T. Kim, N. Shcherbina. Springer, Berlin, 2015, pp. 1–39.

[2.24] *Invariant distances.* In **Metrical and dynamical aspects in complex analysis,** Ed. L. Blanc-Centi, Lecture Notes in Mathematics 2195, Springer, Berlin, 2017, pp. 1–24.

[2.25] *Dynamics in several complex variables.* In **Metrical and dynamical aspects in complex analysis,** Ed. L. Blanc-Centi, Lecture Notes in Mathematics 2195, Springer, Berlin, 2017, pp. 25–54.

[2.26] *Carleson measures and Toeplitz operators.* In **Metrical and dynamical aspects in complex analysis,** Ed. L. Blanc-Centi, Lecture Notes in Mathematics 2195, Springer, Berlin, 2017, pp. 141–157.

3. Research books

[3.1] **Iteration theory of holomorphic maps on taut manifolds.** Mediterranean Press, Cosenza, 1989.

[3.2] With G. Patrizio: **Finsler metrics — A global approach.** Lecture Notes in Mathematics 1591, Springer, Berlin, 1994.

[3.3] **An introduction to hyperbolic dynamical systems.** I.E.P.I. Pisa, 2001.

[3.4] **Holomorphic dynamics on hyperbolic Riemann surfaces.** De Gruyter, Berlin, 2022.

4. Textbooks

[4.1] **Geometria.** McGraw-Hill Libri Italia, Milano, 1996.

[4.2] With C. de Fabritiis: **Esercizi di Geometria.** McGraw-Hill Libri Italia, Milano, 1999. Second edition, 2021.

[4.3] **Algebra lineare.** McGraw-Hill Libri Italia, Milano, 2000.

[4.4] With G.F. Simmons: **Calcolo differenziale e integrale, con elementi di algebra lineare.** McGraw-Hill Libri Italia, Milano, 2000.

[4.5] With C. de Fabritiis: **Geometria analitica con elementi di algebra lineare.** McGraw-Hill Libri Italia, Milano, 2006. Second edition 2010. Third edition, 2014.

[4.6] With F. Tovena: **Curve e superfici.** Springer Italia, Milano, 2006.

[4.7] **Matematica e statistica.** McGraw-Hill Libri Italia, Milano, 2009. Second edition, 2013. Third edition, 2017. Fourth edition, 2023.

[4.8] With F. Tovena: **Geometria differenziale.** Springer Italia, Milano, 2011.

[4.9] With F. Tovena: **Curves and surfaces.** Springer, Berlin, 2011.

[4.10] **Metodi matematici per l'economia e il management.** McGraw-Hill Libri Italia, Milano, 2024.

5. Popularizing papers

[5.1] *Narrare matematica nel fumetto*. Int. J. Sci. Comm. **7** (2003), 1–10.

[5.2] *Scrivere Matematica nel fumetto*. In **Matematica e cultura 2004,** Ed. M. Emmer, Springer Italia, Milano, 2004, pp. 19–29.

[5.3] *Dinamicamente parlando*. Sapere **70** (2004), 18–27.

[5.4] *Come salvare vite e comprarsi le Seychelles usando la teoria della misura*. In **Lezioni sotto la torre,** Ed. M. Stampacchia et al., ETS, Pisa, 2006, pp. 145–151.

[5.5] *Évariste et Héloïse*. In **Matematica e cultura 2006,** Ed. M. Emmer, Springer Italia, Milano, 2006, pp. 145–156.

[5.6] *Nostra (poco affidabile) comunicazione scientifica*. Doc Toscana **19** (2006), 21–22.

[5.7] *La divulgazione scientifica: scenari e prospettive*. In *Speciale Pisa Book Festival,* Edizioni Plus, Pisa, 2006, p. 4.

[5.8] *Il girasole di Fibonacci*. In **Matematica e cultura 2007,** Ed. M. Emmer, Springer Italia, Milano, 2007, pp. 227-240.

[5.9] *L'autobiografia riluttante di G.H. Hardy*. In **Matematica e cultura 2008,** Ed. M. Emmer, Springer Italia, Milano, 2008, pp. 37–48.

[5.10] *Sistemi dinamici olomorfi discreti locali*. Matem. Soc. Cult. **1** (2008), 409–441.

[5.11] *Évariste and Héloïse*. In **The shape of content,** Eds. C. Davis, M. Winkler Senechal, J. Zwicky, A.K. Peters, Wellesley, Massachussetts, 2008, pp. 1–16.

[5.12] *Book review of "Mathematics and culture in Europe"*. Math. Intelligencer **31** (2009), 56–57.

[5.13] *Sistemi dinamici e sistemi caotici*. In **XXI Secolo: L'universo fisico,** Istituto dell'Enciclopedia Treccani, Roma, 2010, pp. 133–142.

[5.14] *Prezzi nel caos*. In **Matematica e cultura 2010,** Ed. M. Emmer, Springer Italia, Milano, 2010, pp. 197–207.

[5.15] *Quando il cielo ci cade sulla testa*. In **Matematica e cultura 2011,** Ed. M. Emmer, Springer Italia, Milano, 2011, pp. 97–109.

[5.16] *The many faces of Lorenz knots*. In **Imagine Math,** Ed. M. Emmer, Springer, Berlin, 2012, pp. 169–174.

[5.17] *Exotic spheres and John Milnor*. In **Imagine Math 2,** Ed. M. Emmer, Springer, Berlin, 2013, pp. 221–229.

[5.18] *Book review of "L'Agrapheur: intrigues policières à saveur mathématique"*. Math. Intelligencer **35** (2013), 87–88.

[5.19] *A la recherche des racines perdues (In search of lost roots)*. In **Imagine Math 3,** Ed. M. Emmer, Springer, Berlin, 2015, pp. 253–261.

[5.20] With B. Possidente: *Fractal art(ists)*. In **Imagine Maths 4,** Eds. M. Abate, M. Emmer, M. Villareal, Unione Matematica Italiana, Bologna, 2015, pp. 67–83.

[5.21] *Mathematical memories*. In **I, mathematician, II,** Eds. P.G. Casazza, S.G. Krantz, R.D. Ruden, COMAP, Bedford, MA, 2016, pp. 179–184.

[5.22] *Book review of "Who killed Professor X?"*. Math. Intelligencer **39** (2017), 70–71.

[5.23] *How to use earthquakes to prevent crimes*. In **Imagine Math 6,** Eds. M. Abate, M. Emmer, M. Villareal, Springer, Milano, 2018, pp. 103–113.

[5.24] *Geometric origami*. In **Imagine Math 7,** Eds. M. Abate, M. Emmer, Springer, Milano, 2020, pp. 117–133.

[5.25] *Book review of "Prime suspects"*. Math. Intelligencer **43** (2021), 115–116.

[5.26] *Book review of "Number theory revealed: An introduction"*. Math. Intelligencer **43** (2021), 128–129.

[5.27] *Dal docente al ministero, spunti per la qualità della didattica*. In **Innovazione didattica universitaria e strategie degli atenei italiani,** Eds. F. Corbo, M. Michelini, A.F. Uricchio, Università di Bari, 2019, pagg. 127–130.

[5.28] *Soul searchin'.* In **Imagine Math 8,** Eds. M. Abate, M. Emmer, Springer, Milano, 2022, pagg. 421–424.

6. Editing of books

[6.1] **Perché Nobel?.** Ed. M. Abate, Springer Italia, Milano, 2008.

[6.2] **Local dynamics of singular holomorphic foliations.** Ed. M. Abate, ETS, Pisa, 2010.

[6.3] **Imagine Maths 4.** Ed. M. Abate, M. Emmer, M. Villareal, Unione Matematica Italiana, Bologna, 2015.

[6.4] **Imagine Maths 5.** Ed. M. Abate, M. Emmer, M. Falcone, M. Villareal, Unione Matematica Italiana, Bologna, 2016.

[6.5] **Imagine Math 6.** Ed. M. Abate, M. Emmer, M. Villareal, Springer, Milano, 2018.

[6.6] **Imagine Math 7.** Ed. M. Abate, M. Emmer, M. Villareal, Springer, Milano, 2020.

[6.7] **Imagine Math 8.** Ed. M. Abate, M. Emmer, Springer, Milano, 2022.