



Europass Curriculum Vitae

Personal information

First name / Surname

Address

E-mail

URL

Francesca Bucci

Dipartimento di Matematica e Informatica (DiMaI)

Università degli Studi di Firenze

Viale Morgagni 65, 50134 Firenze, Italy

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Work experience

Dates

Occupation or position held

Main activities and
responsibilities

Name and address of employer

Type of business or sector

Dates

Occupation or position held

Main activities and
responsibilities

Name and address of employer

Type of business or sector

Dates

Occupation or position held

Main activities and
responsibilities

Type of business or sector

Dates

Occupation or position held

Main activities and
responsibilities

Name and address of employer

Type of business or sector

From 23 Dec. 2011

Associate Professor in *Mathematical Analysis*

Teaching and research on topics within the broad area of Mathematical Analysis.

Research specifically focused on: *Analysis and Control of evolutionary Partial Differential Equations*

Università degli Studi di Firenze (Unifi)

Public Higher Education

From Nov. 1994 to Dec. 2011

Researcher (Assistant Professor, permanent position) in *Mathematical Analysis*

Teaching and research on topics within the broad area of Mathematical Analysis.

Research specifically focused on: *Analysis and Control of evolutionary Partial Differential Equations*

Università degli Studi di Firenze, School of Engineering and Dipartimento di Matematica Applicata until (its closure) December 2010; since then within the Dipartimento di Sistemi e Informatica

Public Higher Education

April-June 2001 (two months)

Postdoctoral Fellow at the Department of Mathematics of University of Virginia, USA

Supervisor/host: Irena Lasiecka

Research specifically focused on *Control-theoretic properties of systems of coupled hyperbolic-parabolic partial differential equations*

Public Higher Education

From Nov. 1990 to Nov. 1994

Researcher (Assistant Professor) in *Mathematical Analysis*

Teaching and research on topics within the broad area of Mathematical Analysis

Università degli Studi di Modena, School of Mathematical Physical and Natural Sciences and Dipartimento di Matematica Pura e Applicata

Public Higher Education

Parental leave

Dates From 18 Nov. 2003 to 10 June 2004 (second maternity leave)

Dates From 11 Apr. 2000 to 3 Nov. 2000 (first maternity leave)

Education and training

Dates From Nov. 1988 to Nov. 1992
Title of qualification awarded Ph.D. In Mathematics
Principal subjects/occupational skills covered Thesis title: “*Some results on control of Partial Differential Equations*”
Advisor: Giuseppe Da Prato (Scuola Normale Superiore, Pisa)
Name and type of organisation providing education and training Università di Pisa, Italy

Dates From Nov. 1987 to Oct. 1988
Title of qualification awarded Fellowship of the Istituto Nazionale di Alta Matematica (INdAM)
Principal subjects/occupational skills covered Programme comprising various courses on different subjects of Mathematics (at Master’s or graduate level), each followed by a final examination
Name and type of organisation providing education and training Università degli Studi di Firenze (on behalf of the INdAM)

Dates June 1987
Title of qualification awarded *Laurea* (Master of Science degree) In Mathematics
Principal subjects/occupational skills covered Thesis title: “*Soluzioni periodiche dell’equazione di Liénard generalizzata*”
Advisor: Roberto Conti (Università degli Studi di Firenze)
Name and type of organisation providing education and training Università degli Studi di Firenze, Italy

Fellowships, Awards

“Research in Pairs” Programme, Centro di Ricerca Matematica Ennio De Giorgi, Pisa (February 2008)

NATO-CNR Senior Fellowships Programme (1999), to support research at the Department of Mathematics of University of Virginia (Apr.-June 2001)

Grant of the Scuola di Dottorato di Ricerca (PhD) in Mathematics of the Università di Pisa (1988-1990)

Fellowship of the Istituto Nazionale di Alta Matematica (Academic Year 1987/88)

1989 Premio di Laurea “Giovanni Sansone” for a tesi (MSc thesis) on *Ordinary Differential Equations* (not assigned): received an award, along with one million of Italian lire

Scholarship of the C.N.R. (Italian National Research Council): Firenze, 1987

Research interests

- Mathematical analysis of initial/boundary value problems for evolutionary partial differential equations (PDE), particularly – but not exclusively – for coupled systems of hyperbolic/parabolic PDE, such as thermoelastic systems, models for acoustic- or fluid-structure interactions: well-posedness, interior/boundary regularity of the corresponding solutions; evolution equations with memory.
- Optimal control problems with quadratic functionals for (linear) evolutionary PDE and composite systems of PDE, with boundary/interface control; differential and algebraic (operator) Riccati equations.
- Long-time behaviour of solutions to linear and nonlinear PDEs:
 - uniform stability/stabilizability, decay rates (via energy methods and frequency domain techniques);
 - existence of global attractors, along with their structure (fractal dimension, regularity, etc.).
- The LQ-problem with non coercive cost functionals.

Personal skills and competences

Mother tongue(s)

Other language(s)

Self-assessment

European level (*)

Italian

English

French

Understanding				Speaking				Writing	
Listening		Reading		Spoken interaction		Spoken production			
C1	Proficient user	C2	Proficient user	C2	Proficient user	C2	Proficient user	C2	Proficient user
A2	Basic user	A2	Basic user	A2	Basic user				

**Scientific Activities, I.
Visiting Appointments**

Georgetown University, Department of Mathematics and Statistics (April 1-10, 2024), invited by Matthias Eller

Georgetown University, Department of Mathematics and Statistics (May 23-June 2, 2022), invited by Matthias Eller
(visit planned to take place during the fall of 2020, *postponed* due to the SARS-CoV-2 emergency, and later to the travel restrictions imposed by the USA)

University of Nebraska-Lincoln, Department of Mathematics (Mar. 2015, one week), invited by George Avalos

SISSA-ISAS, Trieste (May 2011, two weeks), within the trimester "Hyperbolic PDEs, Dispersive and Transport Equations"

Karl-Franzens-Universität Graz, Institut für Mathematik und Wissenschaftliches Rechnen (27-29 Oct. 2010), invited by Barbara Kaltenbacher; held a Guest Lecture within the Series "Excellent women in Mathematics"

Centro di Ricerca Matematica Ennio De Giorgi of the Scuola Normale Superiore di Pisa (Feb. 2008, two weeks circa): *Senior Visitor*, within the programme *Research in Pairs*, with Daniel Toundykov (Univ. of Nebraska-Lincoln).

Centre Émile Borel of the Institut Henri Poincaré (IHP), Université Paris VI, within the trimester *Théorie du contrôle et applications* a first time (Mar. 1998), and within the trimester *Contrôle d'Équations aux Dérivées Partielles et Applications* a second time (Nov. 2010).

Scientific Activities, II. Invited talks/lectures

F. Bucci has given numerous (about *sixty-five*) *invited talks/lectures* in Italian and foreign scientific Institutions, within international (and national) workshops held in various countries including France, Spain, Germany, UK, Austria, Romania, Poland, Morocco, India, USA, Canada, Ecuador, besides Italy.

(The ones pertaining to the last ten years are listed below, along with the most recent *seminar talks/lectures*)

2024 (most recent one) [2nd AMS-UMI International Joint Meeting](#), Special Session "[Analysis and Control of Evolutionary Partial Differential Equations](#)", Università degli Studi di Palermo, July 23-26, 2024
Session Organizers: Pelin Guven Geredeli (Clemson Univ., SC, USA) and Cristina Pignotti (Univ. degli Studi dell'Aquila)

[2024 Spring Eastern Sectional Meeting of the American Mathematical Society](#), Special Session on "[Analysis of PDE in Inverse Problems and Control Theory](#)", Howard University, Washington DC, Apr. 6-7, 2024
Session Organizers: Matthias M. Eller (Georgetown University, Washington DC, USA) and Justin T. Webster (University of Maryland, Baltimore County, USA)

2023 [XXII Congresso dell'Unione Matematica Italiana, Sezione Speciale 6 "Problemi diretti e inversi in scienza dei materiali, biomedicina e climatologia"](#), Pisa, Sept. 4-9, 2023
Session Organizers: Giuseppe Florida (Sapienza Univ. di Roma) and Elisabetta Rocca (Univ. di Pavia)

2022 (1 hour) *Seminar talk*: Imperial College London (UK), within the series [CAP Seminars](#), Dec. 13, 2022
host: David Angeli

School-Workshop on [Analysis, Control & Inverse Problems for Diffusive Systems with Application to Natural and Social Sciences](#), Università degli Studi di Bari Aldo Moro, Dipartimento di Matematica, Bari, July 18-22, 2022
Organizers: Anna Maria Candela (Univ. di Bari), Piermarco Cannarsa (Univ. di Roma Tor Vergata), Genni Fragnelli (Univ. degli Studi della Tuscia), Addolorata Salvatore (Univ. di Bari)

(1 hour) *Seminar talk*: Università degli Studi di Firenze (Unifi), Dipartimento di Matematica e Informatica, within the series [Seminario di Analisi Matematica](#), July 7, 2022
Organizer: Giuliano Lazzaroni (Unifi)

(1 hour) *Seminar talk*: North Carolina State University (NC, USA), within the series [NCSU Differential Equations/Nonlinear Analysis Seminars](#), Apr. 20, 2022
host: Lorena Bociu

- 2021** Minisymposium “*Fluid solid interactions and mixtures*”, within the IFIP TC7 Conference on System Modeling and Optimizazion, Quito (EC), Aug. 30-Sept. 3, 2021 (*on-line, on air*)
Organizers: Lorena Bociu (North Carolina State University), Justin Webster (University of Maryland, Baltimore County)
- INdAM Workshop “*Analysis and Numerics of Design, Control and Inverse problems*”, Istituto Nazionale di Alta Matematica, Roma, June 28-July 2, 2021 (*postponed* from June 13-17, 2020, owing to the SARS-CoV-2 situation)
Organizers: Giuseppe Floridia (Univ. Mediterranea di Reggio Calabria), Enrique Zuazua (Friedrich-Alexander-Univ. Erlangen-Nürnberg; Univ. de Deusto, Bilbao, and Univ. Autónoma de Madrid)
- 2020** (*on stand-by*) Workshop “*Mathematical models in applied sciences – in honour of Paola Loreti*”, Sapienza Università di Roma, Mar. 26-27, 2020 (*deferred*, owing to the SARS-CoV-2 situation).
Organizers: Fabio Camilli, Mirko D'Ovidio, Anna Chiara Lai, Daniela Sforza (Sapienza Università di Roma)
- Workshop “*Controllabilità di PDE in modelli fisici e scienze della vita*”, Univ. di Roma “Tor Vergata”, Feb. 27-28, 2020.
Organizers: Piermarco Cannarsa (Univ. Roma Tor Vergata), Genni Fragnelli (Univ. degli Studi di Bari)
- 2019** Special Session “*Problemi diretti e inversi per equazioni di evoluzione*”, within the XXI Congresso dell’Unione Matematica Italiana, Pavia, Sept. 2-7, 2019.
Organizers: Giuseppe Floridia (Univ. di Napoli Federico II), Silvia Romanelli (Univ. degli Studi di Bari)
- Minisymposium “*Nonlinear acoustics: analytical and numerical aspects*”, within the *International Congress on Industrial and Applied Mathematics* (ICIAM2019), Valencia, July 15-19, 2019.
Organizers: Barbara Kaltenbacher (Klagenfurt, AT), Marta Pellicer (Girona, ES), Mechthild Thalhammer (Innsbruck, AT)
- 2018** Workshop “*Analysis, Control and Inverse Problems for PDEs*”, within the French-German-Italian Laboratoire International Associé on Applied Analysis (LIA-COPDESC), Napoli, Accademia Pontaniana, Nov. 26-30, 2018.
Organizers: Giuseppe Floridia (Napoli Federico II), Roberto Guglielmi (Gran Sasso Science Institute, L'Aquila), Cristina Pignotti (L'Aquila)
- Minisymposium “*Honoring the work of Igor Chueshov*”, within the 28th IFIP TC7 Conference on System Modelling and Optimization, Universitaet Duisburg-Essen, DE, July 23-27, 2018.
Organizers: Irena Lasiecka (Univ. Memphis), Justin Webster (Univ. Maryland, Baltimore County)
- Minisymposium “*Control and inverse problems for evolution equations*”, within SIMAI 2018 (bi-annual congress of the Italian Society of Applied and Industrial Mathematics), Sapienza Università di Roma, July 2-6, 2018.
Organizer: Giuseppe Floridia (Napoli Federico II)

Meeting “*New trends in control of evolution systems*”, Gran Sasso Science Institute L'Aquila, Apr. 20-21, 2018.
Organizers: Roberto Guglielmi (GSSI, L'Aquila), Piermarco Cannarsa (Roma Tor Vergata)

2017 Workshop “*Women in Control: New Trends in Infinite Dimensions*”, Banff Internatinal Research Station, Banff, Alberta (CA), July 16-21, 2017.
Organizers: Luz de Teresa (Universidad Nacional Autonoma de Mexico), Kirsten Morris (University of Waterloo, CA), Irena Lasiecka (University of Memphis, USA)

Workshop “*Partial Differential Equations and Applications*”, Università di Bologna, May 22-26, 2017.
Organizers: Angelo Favini (Università di Bologna), Genni Fragnelli (Università di Bari), Luca Lorenzi (Università di Parma)

2016 Minisymposium “*Differential models in applications to nonlinear media: memory and biological materials*”, within the 7th European Congress of Mathematics, Technische Universitaet Berlin, July 18-22, 2016.
Organizers: Daniele Andreucci and Sandra Carillo (Sapienza Univ. di Roma)

INdAM Meeting “*Optimal Control for Evolutionary PDEs and Related Topics*”, Palazzone di Cortona, June 20-24, 2016.
Organizers: Pierluigi Colli (Univ. di Pavia), Angelo Favini (Univ. di Bologna), Elisabetta Rocca (Univ. di Pavia), Jurgen Sprekels (Humboldt Univ., Berlin)

2015 Workshop on “*New advances in PDE's, Inverse Problems and Control Theory*”, Università degli Studi di Parma, July 6-10, 2015.
Organizers: Angelo Favini (Univ. di Bologna), Genni Fragnelli (Univ. di Bari), Luca Lorenzi (Univ. di Parma)

Minisymposium “*Wellposedness, control, and observability theories for partial differential equations*”, within the 27th IFIP TC7 Conference 2015 on System Modeling and Optimization, Université Nice-Sophia Antipolis, 29 June–3 July 2015.
Organizers: George Avalos (Univ. Nebraska-Lincoln), Scott Hansen (Iowa State Univ.), Daniel Toundykov (Univ. of Nebraska-Lincoln)

GDRE ConEDP-GSSI Workshop on “*Control of Partial Differential Equations*”, Gran Sasso Science Institute (GSSI), L'Aquila, Apr. 22-24, 2015.
Organizers: Fatiha Alabau-Boussouira (Univ. de Lorraine), Piermarco Cannarsa (Univ. di Roma Tor Vergata), Pierangelo Marcati (Univ. dell'Aquila)

Workshop “*Control Theory and Related Topics*”, Politecnico di Milano, Dipartimento di Matematica, Apr. 12-13, 2015.
Organizers: by Fulvia Confortola, Monica Conti, Giuseppina Guatteri, Elsa Maria Marchini (PoliMI)

Special Session on “*Nonlinear Partial Differential Equations in Sciences and Engineering*”, within the Northeastern Spring Sectional Meeting of the American Mathematical Society, Georgetown University, Washington DC, Mar. 7-8, 2015.
Organizers: Lorena Bociu (North Carolina State Univ.), Ciprian Gal (Florida International Univ.), Daniel Toundykov (Univ. of Nebraska)

Professional activities.

Service to Unifi

- Academic libraries**
- 2018-2021** Member of the *Comitato Scientifico della Biblioteca di Scienze* (representative for the Dipartimento di Matematica e Informatica); duration: three years (12 Nov. 2018-31 Oct. 2021)
- Comitato Unico di Garanzia per le Pari Opportunità, la non discriminazione ed il benessere di chi lavora (CUG) – Equal Opportunities, etc.**
- 2021-2023** Member of the CUG of the Università degli Studi di Firenze (Unifi) duration: four years starting June 2021 (resigned on July 21, 2023)
- Organizer* of the following meetings/workshops/seminars (within the activities of the CUG Unifi):
- Dialogo [“Lo spazio delle donne”](#), Università degli Studi di Firenze, Mar. 10, 2023;
 - Incontro-conversazione [“La disabilità visiva nella ricerca: aggirare creativamente gli ostacoli. Esperienze nella storia del diritto, nella matematica e nella pratica artistica”](#), Università degli Studi di Firenze, Oct. 26, 2022;
 - Tavola rotonda [“Afghanistan, ieri e oggi. Testimonianze, analisi, azioni e progetti”](#), Università degli Studi di Firenze, Oct. 15, 2021.
- Co-author of the *Bilancio di genere 2020* of Unifi
- 2019** Proofreader/reviewer for the *Bilancio di genere 2018* of Unifi
- Invited participant at: [“La vita emotiva dell’accademia”](#). Presentation/reading of *“Feeling Academic in the Neoliberal University”*, edited by Yvette Taylor and Kinneret Lahad, Palgrave-Macmillan, Basingstoke 2018; Università degli Studi di Firenze, Mar. 20, 2019
- Degree Programme in Civil and Environmental Engineering**
- 2012-2019** Member of the *Comitato per la Didattica*, Corso di Studio in Ingegneria Civile Edile Ambientale (from Dec. 2012 to Nov. 2019)
Coordinator of the (working group) Gruppo di lavoro “Matematica/Probabilità e Statistica”, CdS Ingegneria Civile Edile Ambientale (since May 2012, during the transition from three distinct (BS) degree programmes to a unique one, and during few subsequent years)

Professional activities.
Orientation programmes,
other talks

- 2019-2023** (Invited) Talk at the Assemblée di Istituto unitaria of the Liceo Scientifico e Linguistico “Niccolò Rodolico”, Firenze, Dec. 15, 2023
Title: *“STEM (e non STEM): una decostruzione, alcuni dilemmi”*
- (Invited) Short speech along with institutional salutes at [May12@DiMaI](#), DIMAI Unifi, May 15, 2023

Invited speaker at [May12@DiMaI](#), DIMAI Unifi, May 13, 2022

Invited speaker at: [“Pillole di parità. La femminilizzazione delle professioni tra cambiamenti sociali e stereotipi. Matematica, Informatica, Architettura e Ingegneria: sostantivi femminili”](#), Università degli Studi di Firenze, Mar. 15, 2021

Invited speaker at: [“Generi e accademia. a partire da noi”](#), Università degli Studi di Firenze, Feb. 28, 2019

Scientific activities, III. Organization of meetings

Organizer of workshops held in Italian and foreign scientific Institutions such as the Ecole Nationale Supérieure de Mines de Paris, Sophia Antipolis (France), the Imperial College London (UK), the Technische Universität Berlin (Germany), the Alpen-Adria Universität Klagenfurt (Austria), the Universidad Autónoma de Madrid and the Universidad del País Vasco (Spain), the IMPA (Brazil), the Politecnico di Torino and the Università di Pisa (Italy), besides the Università degli Studi di Firenze; see below.

- 2023** (*most recent one*) [MathAnalysis@UniFiPiSi, V](#), *fifth meeting* of the series [Incontri di Analisi Matematica tra Firenze Pisa e Siena](#)¹, Dipartimento di Matematica e Informatica dell'Univ. degli Studi di Firenze (DIMAI Unifi), Dec. 6, 2023
Co-organized with: Andrea Colesanti (Univ. degli Studi di Firenze), Giovanni Bellettini (Univ. degli Studi di Siena), Elisabetta Chiodaroli, Emanuele Paolini and Nicola Visciglia (Univ. di Pisa)
- 2021** Minisymposium [“Analysis, Control and Inverse Problems for Partial Differential Equations” \(MS - ID 22\)](#), within the [8th European Congress of Mathematics](#), (on-line, on air, virtually in) Portoroz (SI), June 20-26, 2021 (*postponed* from July 5-11, 2020, owing to the SARS-CoV-2 situation)
Co-organized with: Barbara Kaltenbacher (Alpen-Adria Univ. Klagenfurt, AT)
- [MathAnalysis@UniFiPiSi, IV](#), *fourth meeting* of the series [Incontri di Analisi Matematica tra Firenze Pisa e Siena](#), (on-line, on air, virtually at the) DIMAI Unifi, June 4, 2021
Co-organized with: Andrea Colesanti (Univ. degli Studi di Firenze), Giovanni Bellettini (Univ. degli Studi di Siena), Elisabetta Chiodaroli, Emanuele Paolini and Nicola Visciglia (Univ. di Pisa)
- 2020** [MathAnalysis@UniFiPiSi, III](#), *third meeting* of the series [Incontri di Analisi Matematica tra Firenze Pisa e Siena](#), (on-line, on air) Università di Siena, Oct. 30, 2020
Co-organized with: Andrea Colesanti (Univ. degli Studi di Firenze), Giovanni Bellettini (Univ. degli Studi di Siena), Elisabetta Chiodaroli, Emanuele Paolini and Nicola Visciglia (Univ. di Pisa)

¹ A series of one-day workshops hosting a variety of research topics in the broad subject “Mathematical Analysis”, aimed at connecting researchers and students within and between Firenze, Pisa and Siena.

- 2019** [MathAnalysis@UniFiPiSi, II, second meeting](#) of the series [Incontri di Analisi Matematica tra Firenze Pisa e Siena](#), Università di Pisa, Dipartimento di Matematica, Nov. 22, 2019
Co-organized with: Andrea Colesanti (Univ. degli Studi di Firenze), Giovanni Bellettini (Univ. degli Studi di Siena), Elisabetta Chiodaroli, Emanuele Paolini and Nicola Visciglia (Univ. di Pisa)
- [MathAnalysis@UniFiPiSi, I, first meeting](#) of the series [Incontri di Analisi Matematica tra Firenze Pisa e Siena](#), DIMAI Unifi, May 17, 2019
Co-organized with: Andrea Colesanti (Univ. degli Studi di Firenze), Giovanni Bellettini (Univ. degli Studi di Siena), Elisabetta Chiodaroli, Emanuele Paolini and Nicola Visciglia (Univ. di Pisa)
- 2018** [Paths in Mathematical Control theory](#), a workshop on the occasion of Andrea Bacciotti's and Luciano Pandolfi's 70th birthdays, Politecnico di Torino, Feb. 26-27, 2018
Co-organized with: Francesca Ceragioli, Giuseppe Calafiore, Fabio Fagnani, Luisa Mazzi (Politecnico di Torino), Giacomo Como (Politecnico di Torino and Lunds Universitet), Chiara Ravazzi (Consiglio Nazionale delle Ricerche, IEIIT)
- 2017** International Conference "*New Directions in Nonautonomous Dynamical Systems*", Università degli Studi di Firenze, Jan. 31-Feb. 3, 2017.
Co-organized as a member of the Local Organizing Committee.
Scientific Organizing Committee: Roberta Fabbri (Firenze), Matteo Franca (Universita' Politecnica delle Marche), Carmen Nunez (Valladolid, ES), Maria Patrizia Pera (Firenze), Genevieve Raugel (Paris-Sud, FR), Yingfei Yi (Alberta, CA), Luca Zampogni (Perugia)
- 2016** "*Control and Asymptotics of Nonlinear PDE Dynamics*", Special Session (S19) within the First Joint Meeting Brazil-Italy in Mathematics, IMPA, Rio de Janeiro, Aug. 29-Sept. 2, 2016.
Co-organized with: Alexandre N. de Carvalho (Universidade de Sao Paulo) and Elisabetta Rocca (Pavia)
- 2014** "*Analysis and control of nonlinear partial differential equation evolution systems*", Special Session within the 10th AIMS Conference on Dynamical Systems, Differential Equations and Applications, Universidad Autonoma de Madrid, July 7-11, 2014.
Organized with: Lorena Bociu (North Carolina State University) and George Avalos (University of Nebraska-Lincoln)
- "*PDE methods and challenges in control and inverse problems*", Special Session within the First Joint International Meeting RSME-SCM-SEMA-SIMAI-UMI, Universidad del Pais Vasco, Bilbao, June 30-July 4, 2014.
Organized with: Manuel Gonzalez Burgos and Enrique Fernandez-Cara (Universidad de Sevilla)
- 2013** "*Mathematical Modeling of Physical Phenomena*", Miniymposium within the 26th IFIP TC7 Conference 2013 on System Modeling and Optimization, Alpen-Adria Universitaet Klagenfurt, AU, Sept. 9-13, 2013.
Organized with Daniel Toundykov (University of Nebraska-Lincoln)

"*Novel directions in control of evolutionary PDE problems*",
Minisymposium within the 26th IFIP TC7 Conference 2013 on System
Modeling and Optimization, Alpen-Adria Universitaet Klagenfurt, AU,
Sept. 9-13, 2013.

Organized with George Avalos (University of Nebraska-Lincoln)

2011 "*Analysis and control of composite PDE systems: new challenges and
methods, I-V*", five Minisymposia within the 25th IFIP TC7 Conference
2011 on System Modeling and Optimization, Technische Universitaet
Berlin, Sept. 12-16, 2011.

Organized with Daniel Toundykov (Univ. of Nebraska-Lincoln)

2009 "*Analysis and optimisation of nonlinear evolutionary systems*", Special
Session within the 7th ISAAC Congress, Imperial College London, July
13-18, 2009.

Organized with Irena Lasiecka (University of Virginia)

2005 "*Analysis and Optimization of Systems modelled by PDEs*", Invited
Session within the 22nd IFIP TC7 Conference on System Modeling and
Optimization, Politecnico di Torino, July 18-22, 2005.

Organized with George Avalos (Univ. of Nebraska-Lincoln)

2003 Minisymposium "*Analysis and Control of systems governed by PDEs*",
within the 21st IFIP TC7 Conference on System Modeling and
Optimization, Ecole Nationale Supérieure de Mines de Paris, Sophia
Antipolis, FR, July 21-25, 2003.

Organized with: George Avalos (Univ. of Nebraska-Lincoln) and Catherine
Lebiedzki (Pole Universitaire Leonard de Vinci, Paris -- then, now WSU Michigan)

Scientific Activities, IV. Editorial work

Reviewer for the following international journals:

*Journal of Mathematical Analysis and Applications, Evolution
Equations and Control Theory, Journal of Differential Equations,
Discrete and Continuous Dynamical Systems (and DCDS-S, DCDS-B),
Mathematical Models and Methods in Applied Sciences (M3AS), Applied
Mathematics and Optimization, Communications in Contemporary
Mathematics, Journal of the European Mathematical Society, SIAM
Journal on Applied Mathematics, SIAM Journal on Control and
Optimization, Journal of Mathematical Fluid Mechanics, Nonlinear
Analysis, Applicable Analysis, Nonlinear Differential Equations and
Applications (NoDEA), Communications on Pure and Applied Analysis,
Zeitschrift fuer Angewandte Mathematik und Physics, Control &
Cybernetics, The Quarterly Journal of Mechanics & Applied
Mathematics, IEEE Transactions on Automatic Control*

Scientific Activities, V. Publications

Preprints (subject to endorsement)

40. F. Bucci, M. Eller, An optimal control problem for Maxwell's
equations, [arXiv:2411.03963](https://arxiv.org/abs/2411.03963) [math.OC], 6 Nov. 2024

39. P. Acquistapace, F. Bucci, Optimal synthesis control for evolution
equations subject to nonlocal inputs, [arXiv:2407.15559](https://arxiv.org/abs/2407.15559), [math.OC], 22
July 2024

Journal articles, Book chapters, Postprints (subject to peer review)

- 38.** P. Acquistapace, F. Bucci, Riccati-based solution to the optimal control of linear evolution equations with finite memory, *Evolution Equations and Control Theory* (Early access: July 2023), DOI: <https://www.aims sciences.org//article/doi/10.3934/eect.2023035>
- 37.** P. Acquistapace, F. Bucci, Uniqueness for Riccati equations with unbounded operator coefficients with application to the optimal boundary control of composite systems of evolutionary partial differential equations, *Ann. Mat. Pura Appl.* **202** (2023), 1611-1642; DOI: <https://doi.org/10.1007/s10231-022-01295-7>
- 36.** P. Acquistapace, F. Bucci, On the infinitesimal generator of an optimal state semigroup, *Semigroup Forum* **105** (2022), 46-72; DOI: <https://doi.org/10.1007/s00233-022-10288-0>
- 35.** F. Bucci, M. Eller, The Cauchy-Dirichlet problem for the Moore-Gibson-Thompson equation, *C. R. Math. Acad. Sci. Paris* **359** (2021), no. 7, 881-903; DOI: [10.5802/crmath.231](https://doi.org/10.5802/crmath.231)
- 34.** F. Bucci, Improved boundary regularity for a Stokes-Lamé system, *Evol. Equ. Control Theory* **11** (2022), no. 1, 325-346 (*Online First* Apr. 9, 2021); DOI: [10.3934/eect.2021018](https://doi.org/10.3934/eect.2021018)
- 33.** F. Bucci, L. Pandolfi, On the regularity of solutions to the Moore-Gibson-Thompson equation: a perspective via wave equations with memory, *J. Evol. Equ.* **20** (2020), 837-867 (Published online: 19 Nov. 2019); DOI: <https://doi.org/10.1007/s00028-019-00549-x>
- 32.** F. Bucci, I. Lasiecka, Feedback control of the acoustic pressure in ultrasonic wave propagation, *Optimization* **68** (2019), no. 10, 1811-1854 (Published online: 19 Aug 2018); DOI: [10.1080/02331934.2018.1504051](https://doi.org/10.1080/02331934.2018.1504051)
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Teaching Activity

(*briefly*) Starting in the academic year 1994-1995, F. Bucci has been responsible of academic courses in *Mathematical Analysis* within various degree programmes such as [Mathematics \(MS degree\)](#), Physics (BS degree), Civil and Environmental Engineering (both BS and MS degrees), Computer Engineering, etc. The said courses include:

- *Analisi Matematica I*,
- *Analisi Matematica II*,
- *Complementi di Analisi Matematica* (with an Introduction to *Partial Differential Equations*),
- *Analisi Superiore* (more specifically, with focus on *Mathematical Control Theory and Semigroup Theory*),
- *Calcolo delle Variazioni e Equazioni alle Derivate Parziali*.

Collaborative teaching has been carried out – within the MS programme in Mathematics – jointly with the colleagues Andrea Colesanti, Luigi De Pascale, Sergio Vessella, Giuliano Lazzaroni.

The course

- *Control theory for systems governed by Partial Differential Equations: an introduction* (instructors: F. Bucci, Sergio Vessella; Hours/ECTS: 24 / 4)

has been offered within the 2023-2024 [PhD Programme](#) (Dottorato di Ricerca in Matematica, Informatica, Statistica) at the DIMAI Unifi.

General information on the courses held in the *academic year* (AA) 2024-2025 is found [here](#) (Unifi) and [here](#) (personal website); further relevant information and teaching materials are posted in Moodle.