Short curriculum vitae

Annalisa Buffa, Research ID: C-4275-2011, web: `http://mns.epfl.ch`
Google scholar `https://scholar.google.it/citations?user=KhEJO-YAAAAJ&hl=en`

Annalisa Buffa, born in Milano, February 14th, 1973.

▷ Education

Dec. 2000 Ph.D. in Mathematics, Università di Milano, on December 19th, 2000.

July 1996 Laurea (equivalent M.Sc. level) in Computer Science Engineering (Ingegneria Informatica) in 1996.

▷ Employment history & institutional responsibilities

2016- Full Professor at EPFL, Chair of numerical modelling and simulation, Institute of Mathematics

2013-2016 **Director** of the Institute of Applied Mathematics and Information Technologies of the CNR. Pavia, Milano and Genova sections, about 120 employees

2004- Dirigente di ricerca (on leave) at CNR-IMATI, Pavia, Italy.

2001-2004 Researcher at CNR-IMATI, Pavia, Italy.

▷ Active memberships in scientific societies

2020- Member of the Gruppo 2003, `https://www.gruppo2003.org`

2018- Corresponding member of the **Accademia dei Lincei**

2016- Member of the **Academia Europaea**

▷ Prizes, awards, fellowships, special lectures

2019 **Highly Cited Researcher** 2019, Cross-field, Web of Science

11/2018 **Jacques Louis Lions Lectures**, Universitè Pierre et Marie Curie, Paris.

08/2015 **Collatz prize** by ICIAM, `http://www.iciam.org/iciam-prizes-2015`

11/2014 The **Aziz Lecture**, Department of Mathematics, University of Maryland, USA

05/2014 **Premio Sgarlata**, nomination of the president of CNR, Luigi Nicolais

10/2013 **Premio Ghislieri** for mathematical sciences.

09/2007 **Bartolozzi** Prize, *Unione Matematica Italiana.*

02/2007 **John Todd Fellowship** Prize, Mathematisches Forschungsinstitut, Oberwolfach, Germany.

▷ Main research and innovation projects (selection)

2021-2023 Innosuisse project n. 20119: *Next generation structural design and assessment tool for large-scale wind turbine applications* . Role: EPFL partner

2020-2023 BRIDGE project n. `40B2-0_187094`: *Design-through-Analysis (of PDEs): the litmus test*, funded by SNSF. Role: principal investigator

2020-2023 FET-Open n. 862025, project ADAM^2 : *Analysis, Design, And Manufacturing using Microstructures.* Role: EPFL group leader. Coordinator: BECAM, Spain

2016-2021 **ERC Advanced grant** n. 694515, Project CHANGE: *New CHallenges for (adaptive) PDE solvers: the interplay of ANalysis and GEometry.* Principal Investigator.

2012-2018 Research contract A10-5164 (2015-2018) and A10-4087 (2012-2015) with Michelin, Centre Technolgique Ladoux, France. Title: *Isogeometric methods for contact mechanics.* Role: Principal Investigator.

2012-2013 Research contract with TOTAL Scientific division, France. Title: *Isogeometric methods for large deformations.* Role: Principal Investigator (with G. Sangalli).

2008-2013 **ERC Starting Independent Grant** n. 205004, Project GeoPDEs: *Innovative compatible discretization techniques for Partial Differential Equations.* Principal Investigator.

▷ Student advising and teaching

Ph.D. and Post-doctoral students under my supervision (since 2010) Margarita Chapati (2021-), Alessandra Arrigoni (PhD, 2020-), Thibault Hirchler (2020-), Xiaodong Wei (2018-), Ondine Chanon (PhD, 2017-), Riccardo Puppi (PhD, 2016-), Luca Coradello (PhD, 2017-), Mathieu Fabre (2016-2018), Ericka Brivadis (PhD, 2012-2016), Pablo Antolin (2014-2016), Eduardo Garau (2014-2015), Carlotta Giannelli (2014), Sebastian Pauletti (2012-2013), Andrea Bressan (PhD, 2009-2013), Massimiliano Martinelli (2010-2014), Rafael Vázquez (2008-2011), Durkin Cho (2008-2010), Carlo de Falco (2008-2009), Mukesh Kumar (2009-2010).

Teaching at M.Sc. graduate level I teach every year M.Sc classes to students in Math, CSE and mechanical engineering. I taught numerous courses in various PhD programs and schools. E.g., CEA-EDF-INRIA School (INRIA 2015), Isogeometric analysis (CIME School, 2013), mixed finite elements (Pavia, 2012).

▷ Professional Activities

Editorial activity

2016- SIAM Journal Numerical Analysis, Associate Editor.
2014-2018 JEMS Journal of the European Mathematical Society, Editor.
2014- Book series: EMS Series in Industrial and Applied Mathematics, Editor.
2013-2019 ESAIM: Mathematical Modelling and Numerical Analysis, CUP, **Editor In-Chief**.
2008- Bollettino dell'Unione Matematica Italiana, Associate Editor.
2007- IMA Journal of Numerical Analysis, Associate Editor.

Main Panels and Boards since 2014

2019- Member of the scientific board for the Department of Engineering (DIITET) of the CNR, Italy. Board members: A. Buffa, A. Sangiovanni Vincentelli, F. Testa
2018-2022 Member of the ICM Structure Committee
2015- Member of the scientific committee of the series of ICOSAHOM conferences
2014- Member of the scientific committee of the series of WAVES conferences
2014-2016 Member of the scientific committee, 7th European Congress of Mathematics (7ECM).
2010-2016 Member of Standing Committee on Applied Mathematics of EMS.

Main commissions of trust - since 2014

2021- Member of the Scientific committee GPR - Grand programmes de recherche, University of Bordeaux
2021- Member of the National Research Council - Programmes Division, Swiss National Science foundation.
2018-2019 Member of the scientific committee for the Shaw Prize `http://www.shawprize.org/en/`
2017-2019 Member of the ERC AdG evaluation panel PE1
2015-2018 Member of the scientific board for Fondation Sciences Mathématiques de Paris (FSMP)

▷ Organisation of workshops and conferences (selection)

2020 Workshop *Foundations of Numerical PDEs*, within FoCM Conference - cancelled

2018-2019 Co-organizer of two Oberwolfach worshops. 1929b: Mathematical Foundations of Isogeometric Analysis; and 1843: Computational Engineering.

2018 ESI Thematic programme on Numerical analysis of complex PDE models in the sciences, Vienna, June 11-August 17, 2018. Co-organizers: I. Perugia, M. Melenk, Ch. Schwab, T. Hou

2017 **Co-chair of the** *V International Conference on Isogeometric Analysis, IGA 2017*, Pavia, September 11-13, 2017. Co-chairs: A. Reali, G. Sangalli, F. Auricchio.

2017 Workshop *Foundations of Numerical PDEs*, within FoCM Conference, Barcelona, July.

2012 CIME Summer School: *Isogeometric Analysis: a new paradigm in the numerical approximation of PDEs*, Cetraro (CS), Italy. Co-organizer: G. Sangalli.

▷ Publication records

At today, November 7th, 2020, I have coauthored 96 papers that are published in international peer-reviewed journals, 5 preprints, and I have also contributed with several conference proceeding papers and book chapters. A complete list can be seek on google scholar or with my research-ID profile. My bibliometric data are as follows:

- ISI Web of Science: number of citations: 4564, h-index 38, average citations per item 47.5
- Google Scholar: number of citations: 8634, h-index 47, i10-index 90.

I am a Highly Cited Researcher, Cross fields, 2019 according to Web of Science.