

PERSONAL INFORMATION

Marco Donatelli, Ph.D.

 Department of Science and High Technology
 University of Insubria

WORK EXPERIENCE

2014 - now

Associate Professor of Numerical Analysis

University of Insubria

- Research interests are mainly devoted to two large areas: i) regularization of large-scale inverse problems, ii) fast iterative methods for structured linear systems.

2005 - 2014

Assistant Professor of Numerical Analysis

University of Insubria

EDUCATION AND TRAINING

2002 - 2005

Ph.D. in Computational Mathematics

EQF level 8

University of Milano

- Image Deconvolution and Multigrid Methods.

1996 - 2002

MS in Computer Science (magna cum laude)

EQF level 7

University of Firenze

- Multigrid methods for structured linear systems and applications

PERSONAL SKILLS

Mother tongue(s)

Italian

Other language(s)

English

French

UNDERSTANDING		SPEAKING		WRITING
Listening	Reading	Spoken interaction	Spoken production	
C1	C1	C1	C1	C1
A2	A2	A2	A2	A2

Levels: A1/A2: Basic user - B1/B2: Independent user - C1/C2 Proficient user
[Common European Framework of Reference for Languages](#)

Communication skills

- Good communication skills gained through lecturing activity and scientific communication to international and national conference.

Organisational / managerial skills

- Group Leader since 2012. Currently leader of a research team of two undergraduates, three PhD students and one post-doc.

- He has organized several national and international conferences.
- He is in the editorial boards of three international journals.

Job-related skills

- See additional information.

Digital competence

SELF-ASSESSMENT

Information processing	Communication	Content creation	Safety	Problem solving
Proficient user	Proficient user	Proficient user	Independent user	Proficient user

Levels: Basic user - Independent user - Proficient user

[Digital competences - Self-assessment grid](#)

- Excellent command of programming environments (Matlab, C++, Java, fortran, etc.)
- Very good command of office suite (word processor, spread sheet, presentation software)

Other skills

- fishing
- ski
- goalkeeper

Driving licence

B

ADDITIONAL INFORMATION

Courses

Analisi Numerica I, II e III (BSc in Mathematics)
 Matematica Computazionale (BSc in Mathematics)
 Laboratorio di Programmazione I (BSc in Mathematics)
 Metodi Numerici e Applicazioni A e B (MS in Mathematics)
 Approximation Methods A (MS in Mathematics)

Memberships

- SIAM Linear Algebra and Imaging
- SIMAI
- UMI
- INDAM-GNCS

Projects

- 2011: National coordinator of "Analysis of structures in restoration of images and monuments" founded by INDAM.
- 2012: National coordinator of "Preconditioning and multigrid methods for fast computation of accurate solutions" founded by INDAM.
- 2013-16: National coordinator of PRIN 2012 "Structured Matrices in Signal and Image Processing (SMaSIP)" funded by the Italian Ministry of University and Research.
- 2014: Research Project "Structured Matrices in Image Deblurring" for a postdoc fellowship founded by University of Insubria.
- 2015: Research Project "Numerical Methods for Image Deblurring" for a postdoc fellowship founded by University of Insubria.
- 2017: Research Project "Structured Numerical Methods in Image Restoration" for a postdoc fellowship founded by University of Insubria.
- 2018: National coordinator of the bimester INDAM project CMPI (Computational Methods for Inverse Problems in Imaging)
- 2018: Research Project "Structured Numerical Methods for Image Deblurring" for a postdoc fellowship founded by University of Insubria.
- 2019: Research Project "Structured Matrices for Inverse Problems in Imaging" for a postdoc fellowship founded by University of Insubria.

Citations

Author of 76 papers on peer-reviewed international journals with 63 co-authors. He received about 858 citations, with h-index = 17 (Sources: Scopus).

References

<https://www-scopus-com.insubria.idm.oclc.org/authid/detail.uri?authorId=8319686500>
<https://orcid.org/0000-0001-7958-9126>

Publications

Selected recent Publications

- [1] A. Buccini, M. Donatelli, F. Ferri, Weakly Constrained Lucy–Richardson with Applications to Inversion of Light Scattering Data, *J. Sci. Comput.*, 74 (2018), pp. 786–804.
- [2] M. Donatelli, M. Mazza, S. Serra-Capizzano, Spectral analysis and multigrid methods for finite volume approximations of space-fractional diffusion equations, *SIAM J. Sci. Comput.*, 40–6 (2018), pp. A4007–A4039.
- [3] A. Buccini, M. Donatelli, R. Ramlau, A semiblind regularization algorithm for inverse problems with application to image deblurring, *SIAM J. Sci. Comput.*, 40–1 (2018), pp. A452–A483.
- [4] H. Moghaderi, M. Dehghan, M. Donatelli, M. Mazza, Spectral analysis and multi-grid preconditioners for two-dimensional space-fractional diffusion equations, *J. Comput. Phys.*, 350 (2017), pp. 992–1011.
- [5] P. Dell’Acqua, M. Donatelli, C. Estatico, M. Mazza, Structure Preserving Preconditioners for Image Deblurring, *J. Sci. Comput.*, 72 (2017), pp. 147–171.
- [6] M. Donatelli, C. Garoni, C. Manni, S. Serra-Capizzano, H. Speleers, Symbol-based multigrid methods for Galerkin B-spline isogeometric analysis, *SIAM J. Numer. Anal.*, 55 (2017), pp. 31–62.
- [7] M. Donatelli, T. Huckle, M. Mazza, D. Sesana, Image deblurring by sparsity constraint on the Fourier coefficients, *Numer. Algorithms*, 72 (2016), pp. 341–361.
- [8] M. Donatelli, C. Garoni, C. Manni, S. Serra-Capizzano, H. Speleers, Spectral analysis of matrices in isogeometric collocation methods, *Math. Comp.*, 85 (2016), pp. 1639–1680
- [9] Y. Cai, M. Donatelli, D. Bianchi, T. Z. Huang, Regularization preconditioners for frame-based image deblurring with reduced boundary artifacts, *SIAM J. Sci. Comput.*, 38–1 (2016), pp. B164–B189.
- [10] M. Donatelli, M. Mazza, S. Serra-Capizzano, Spectral analysis and structure preserving preconditioners for fractional diffusion equations, *J. Comput. Phys.*, 307 (2016), pp. 262–279.
- [11] M. Donatelli, A. Luati, A. Martinelli, Spectral filtering for trend estimation, *Linear Algebra Appl.*, 473 (2015), pp. 217–235.
- [12] D. Bianchi, A. Buccini, M. Donatelli S. Serra-Capizzano, Iterated fractional Tikhonov regularization, *Inverse Problems*, 31 (2015) 055005.
- [13] M. Donatelli, C. Garoni, C. Manni, S. Serra-Capizzano, H. Speleers, Robust and optimal multi-iterative techniques for IgA collocation linear systems, *Comput. Methods Appl. Mech. Engrg.*, 284 (2015), pp. 1120–1146.
- [14] M. Donatelli, C. Garoni, C. Manni, S. Serra-Capizzano, H. Speleers, Robust and optimal multi-iterative techniques for IgA Galerkin linear systems, *Comput. Methods Appl. Mech. Engrg.*, 284 (2015) pp. 230–264.

Friday, 22 October 2021