Giuseppe Antonio Recupero

Personal Data

Name:	Giuseppe Antonio Recupero
Place and Date of Birth:	Messina, Italy | 16 January 1998
Address:	Vicolo Bianco 13, 40139, Bologna (BO)
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Scientific Education

11/2021 - 10/2024	PhD in Mathematics - University of Bologna Thesis: Variational and Differential Models for Shape Modeling Supervisor: Prof. S.Morigi To be defended in 04/2025
09/2018 - 03/2021	Master's degree in Mathematics - University of Bologna Thesis: Non-convex variational mesh denoising Supervisor: Prof. S.Morigi Grade: 110/110 cum laude
09/2015 - 12/2018	Bachelor's degree in Mathematics - University of Bologna Thesis: Dirichlet's Theorem on primes in arithmetic progressions Supervisor: Prof. S.Venturini Grade: 109/110

Abroad Research Activities

04/2023 - 06/2022	Marco Polo Research Fellowship at GREYC Lab, ENSICAEN, Caen (France). Supervisors: Prof. S.Morigi, Prof. J.Fadili
04/2021 - 07/2021	Research fellowship UNIBO in Mathematics at CNRS - I3S, Sophia-Antipolis (France). Supervisors: Prof. S.Morigi, Prof. L.Calatroni
01/2020 - 06/2020	Erasmus Program at Dauphine University - Paris (France)

Publications

M. Huska, S. Morigi, **G.A. Recupero**, *3D Cloning and Inpainting via Osmotic Flow*; in progress.

J. Fadili, **G.A. Recupero**, R. Zantout, *Non-local and graph approximations of Osmosis PDE model: limits and consistency*; in progress

A. Lanza, S. Morigi, **G.A. Recupero**, *Variational graph p-Laplacian eigendecomposition under p-orthogonality constraints*; Computational Optimization and Applications, 2024, doi.org/10.1007/s10589-024-00631-2

M.Huska, S.Morigi, **G.A. Recupero**, *Geometric Texture Transfer via Local Geometric Descriptors*, Special Issue on Shape Modelling, Approximation and Refinability Towards new computational techniques, Applied Mathematics and Computation; doi.org/10.1016/j.amc.2023.128031

L.Calatroni, S.Morigi, S.Parisotto, **G.A. Recupero**, *Fast and stable schemes for non-linear osmosis filtering*, Computers and Mathematics with Applications, 2023, doi.org/10.1016/j.camwa.2022.12.015.

L.Calatroni, M.Huska, S.Morigi, **G.A. Recupero**, *A unified surface geometric framework for feature-aware denoising, hole filling and context-aware completion*, Journal of Mathematical Imaging and Vision, 2022, doi.org/10.1007/s10851-022-01107-w

M.Huska, S.Morigi, **G.A.Recupero**, *Sparsity-aided Variational Mesh Restoration*, Lecture Notes in Computer Science, SSVM 2021, LNCS 12679: Scale Space and Variational Methods in Computer Vision, 2021, DOI:10.1007/978-3-030-75549-2-35

Research Projects

INdAM - GNCS Project, code CUP_E53C23001670001 - 03/2024 - 03/2025

INdAM – GNCS Project, code CUP_E53C22001930001 - 02/2023 - 01/2024

Awards

Best Poster Award - MAMALIA2024 PhD Summer School - Bologna - 05-12/06/24 - 'Osmosis PDE applications for image and mesh editing'

Conferences

EURO2024 - Copenhagen - 01-03/07/24 Contributed Talk: 'A Variational Model for graph p-Laplacian eigenfunctions under p-orthogonality constraints'

AMALART 2024 - Cagliari - 22-24/04/24 Contributed Talk '3D Inpainting via Osmotic Flow of Differential Coordinates'

YAMC 2023 - Siena - 18-22/09/23 - Presentation: Non-local and non-linear versions of the Osmosis PDE model: properties and applications on images and graphs

SIMAI 2023 - Matera - 28/08/23-01/09/23 - Talk in Mini-symposium - Non-local and non-linear versions of the Osmosis PDE model: properties and applications on images and graphs

SMART 2022 - Rimini - 20-24/10/22 - Presentation: Geometric Texture Transfer via Local Geometric Descriptors;

STAG 2021 - Virtual Event - 26-29/10/21 - Poster: A unified surface geometric framework for feature-aware denoising, hole filling and context-aware completion;

SSVM 2021 - Virtual Event - 17-19/05/2021 - Poster: Sparsity-aided Variational Mesh Restoration.

Teaching Activity

Tutor - Mathematical Institutions - Engineering-Architecture - University of Bologna - 09/23-02/24
Tutor - Mathematics Pre-Course - Environmental Sciences - University of Bologna - 09/23
Tutor - Algebra and Geometry - Mechanical Engineering - University of Bologna - 09/22-02/23
Tutor - Geometry & Algebra - Mechanic Engineering - University of Bologna - 10/20-01/21 & 12/22-02/23