Arianna **Rampini**

PhD student · Computer Science

Edu**cation**

PhD student in Computer Science
Sapienza University of Rome

Rome, Italy
November 2018 – Present

- Supervisor: Emanuele Rodolà
- Research interests: geometry processing, computer vision, geometric deep learning

Master's Degree in Theoretical Physics
Sapienza University of Rome

Rome, Italy
October 2016 – October 2018

- Grade: *110/110 summa cum laude*
- Thesis advisor: Federico Ricci Tersenghi
- Thesis title: *The use of Monte Carlo methods to solve inference problems*
- Successfully completed the *Excellence Programme* offered by Sapienza

Bachelor's Degree in Physics
Sapienza University of Rome

Rome, Italy
October 2013 – September 2016

- Grade: *110/110 summa cum laude*
- Thesis advisor: Federico Ricci Tersenghi
- Thesis title: *Optimization algorithms for community detection in graphs*

Science High school Diploma
Liceo Scientifico "Vito Volterra"

Rome, Italy
September 2008 – July 2013

- Grade: *100/100 summa cum laude*

Awa**rds and Scholarships**

10/2019	**Best Student Paper Award**, at the Int. Conf. on 3D Vision (3DV 2020) with the paper *Instant recovery of shape from spectrum via latent space connection*.	*Online*
11/2019	**Bourse de recherche**, fellowship offered by the French government to PhD students willing to spend three months in a French research institution (École Polytechnique), with the project *Generative models for deformable shapes*.	*Rome, Italy*
11/2020	**Avvio alla Ricerca**, research funding for PhD students of Sapienza University, with the project *Fake news detection by geometric deep learning on graphs*.	*Rome, Italy*
09/2019	**Best Paper Award**, at the Int. Conf. on 3D Vision (3DV 2019) with the paper *Correspondence-free region localization for partial shape similarity via hamiltonian spectral alignment*.	*Quebec City, Canada*
09/2019	**Best Paper Award**, at the IEEE Women in Engineering Workshop (WIE 2019) with the paper *Correspondence-free region localization for partial shape similarity via hamiltonian spectral alignment*.	*Quebec City, Canada*
01/2018	**Excellence programme**, scholarship awarded to the top 15 students of the Degree Course in Physics at Sapienza, that allows to attend extra lectures and to have partial refund of university taxes.	*Rome, Italy*

Aca**demic Experience**

Teaching assistant
Computer Science Department of Sapienza

Rome, Italy
October 2020 – January 2021

- Supporting teaching activity for the course *"Probabilità e laboratorio"* (probability course of the Bachelor's degree in Statistics) and *"Analisi"* (analysis course of the Bachelor's degree in Engeneering)

Visiting researcher
Computer Science Department of École Polytechnique

Paris, France
February 2020 – April 2020

- Host professor: Maks Ovsjanikov
- Duration of the visiting period: three months (in part remotely)

Guest lecturer
Rome, Italy

COMPUTER SCIENCE DEPARTMENT OF SAPIENZA
March 2019

- For the course *"Computer Graphics"* (Bachelor's degree in Computer Science)

Teaching assistant
Rome, Italy

PHYSICS DEPARTMENT OF SAPIENZA
March 2018 – June 2018

- Supporting teaching activity for the course *"Laboratorio di Meccanica"* (1st year of Bachelor's degree in Physics) during laboratory classes
- Grading lab reports of the students

Laboratory assistant
Rome, Italy

LABORATORI BRUNO PONTECORVO
March 2017 – January 2018

- Supporting activity to professors and students during laboratory classes for the courses *"Laboratorio di Meccanica"*, *"Laboratorio di Circuiti"*, *"Termodinamica e laboratorio"* of the Bachelor's degree in physics
- Supporting activity to laboratory staff for preparing classes of the above mentioned courses

Talks & Seminars

Isospectralization, or how to hear shape, style and correspondence
Haifa, Israel

TECHNION, ISRAEL INSTITUTE OF TECHNOLOGY
January 2019

Invited talk at *Pixel Club - Technion computer vision colloquium*

Isospectralization, or how to hear shape, style and correspondence
Rehovot, Israel

WEIZMANN INSTITUTE OF SCIENCE
January 2019

Invited talk

Academic service

Reviewer
ICCV 2021, CVPR 2021, 3DV 2020, ECCV 2020, CVPR 2020, CVPR 2019, ICCV 2019, CAIP 2019, Journal of Mathematical Imaging and Vision, Applied Mathematics and Computation, ICCV Geometry Meets Deep Learning 2019

Student volunteer
Eurographics 2019

Schools & Workshops

01/2021	**Mediterranean Machine Learning school,** six days school with keynotes, lectures and practical sessions on Machine Learning.	*Online*
07/2020	**Advanced Course on Data Science & Machine Learning,** five-days summer school (40 hours of lectures) on cutting-edge advances in Machine Learning.	*Siena, Italy*
04/2020	**ELLIS Workshop on Geometric and Relational Deep Learning,** virtual event.	*Online*
11/2019	**The Ethics and Law of AI,** at Camera dei deputati, Palazzo Montecitorio. Conference aimed at stimulating a debate on the A.I. Code of Ethics in Italy.	*Rome, Italy*
09/2019	**Geometry Workshop,** at Graz University of Technology. Topics: discrete differential geometry, computational geometry and topology, digital fabrication and design	*Strobl, Austria*
07/2019	**Graduate School on Geometry Processing,** several lectures in various topics in the field.	*Milan, Italy*
04/2019	**Workshop on Shape Analysis,** restricted event following a merit-based selection process.	*Los Angeles, USA*

Publications

Universal Spectral Adversarial Attacks for Deformable Shapes. Rampini, A., Pestarini, F., Cosmo, L., Melzi, S., Rodolà, E. *In Proc. of the IEEE Conference on Computer Vision and Pattern Recognition (CVPR) 2019*.

Instant recovery of shape from spectrum via latent space connections. Marin, R., Rampini, A., Castellani, U., Ovsjanikov, M., Rodolà, E., Melzi, S., *International Conference on 3D Vision (3DV)* 2020.

Correspondence-free region localization for partial shape similarity via Hamiltonian spectrum alignment. Rampini, A., Tallini, I., Ovsjanikov, M., Bronstein, A. M., Rodolà, E., *International Conference on 3D Vision (3DV)* 2019.

Isospectralization, or how to hear shape, style, and correspondence. Cosmo, L., Panine, M., Rampini, A., Ovsjanikov, M., Bronstein, M. M., Rodolà, E. *In Proc. of the IEEE Conference on Computer Vision and Pattern Recognition (CVPR) 2019*.