# Isabella Cama

*Curriculum Vitae*

## Education

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| Sept. 2018 – Apr. 2021 | **Master of Science**, *Università degli Studi di Genova*, Genoa, Italy<br>Master degree in Mathematics. Final mark 110/110 cum laude. |
| Sept. 2015 – Sept. 2018 | **Bachelor of Science**, *Università degli Studi di Genova*, Genoa, Italy<br>Bachelor degree in Mathematics. Final mark 110/110 cum laude. |
| 2010 – 2015 | **High school diploma**, *Liceo Scientifico Leonardo Da Vinci*, Genoa, Italy<br>Final mark 100/100 cum laude. |

## Master Thesis

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| Title | *Pattern recognition in medical brain imaging.* |
| Supervisors | Cristina Campi and Michele Piana |
| Description | Implementation and description of an active contour technique for tumor segmentation in brain MRI images and validation of results. |

## Bachelor Thesis

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| Title | *Iterative methods for convex functional in machine learning.* |
| Supervisor | Ernesto De Vito |
| Description | Study of a regularization method for convex functional based on early stopping. |

## Position

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| November 2021 – Present | **PhD in Mathematics and Applications, Curriculum Mathematical Methods for Data Analysis**, *Università degli Studi di Genova - IRCCS Policlinico Ospedale San Martino - LISCOMPlab - MIDA*, Genoa, Italy<br>Project "Artificial intelligence in radiomics" (D.R. 1898, 10/05/2021). |

## Experience

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| 19–25 June 2022 | **14th IEEE EMBS-SPS International Summer School on Biomedical Imaging**, Saint-Jacut de la Mer, Brittany, France |
| April 2021 – October 2021 | **Postgraduate scholarship**, *Università degli Studi di Genova - IRCCS Policlinico Ospedale San Martino - LISCOMPlab - MIDA*, Genoa, Italy<br>Research on medical brain imaging: image segmentation and radiomics (D.R. 1180, 26/03/2021). |

March 2020 – May 2020 **24 CFU for teaching**, *Università degli Studi di Genova*, Genoa, Italy
University credits in anthropo-psycho-pedagogical disciplines and didactic methodologies.

March 2020 – May 2020 **Internship**, *On AIR*, Genoa, Italy
I developed abilities in image classification and detection using neural networks.

9–13 September 2019 **Summer School of Applied Armonic Analysis and Machine Learning**, *"Three minicourses on Signal Analysis and Big Data"*, Genoa, Italy

September 2017– December 2017 **Erasmus**, *University College Cork*, Cork, Ireland

## Teaching

Feb. 2022 – May 2022 **Calculus I**, *Department of Civil and Environmental Engineering, Università degli Studi di Genova*, Genoa, Italy
Tutoring first year students.

## Papers

2022 I. Cama, V. Candiani, M. Piana, L. Roccatagliata and C. Campi "Impact of segmentation accuracy on the quality of radiomics features", to be submitted.

2022 I. Cama, V. Candiani, M. Piana, L. Roccatagliata and C. Campi "A comprehensive tool for segmentation and radiomics analysis of MR images", to be submitted.

2022 L. Taramasso et al. "Distinctive features of immune markers of activation and exhaustion in adolescents and young adults people living with HIV infected perinatally vs adult age", to be submitted.

2022 P. Esposito et al. "Longitudinal cluster analysis of hemodialysis patients with Covid-19 in the pre-vaccination era", submitted to Life.

## Softwares

2022 `https://github.com/theMIDAgroup/GUI-Meningioma`, a comprehensive tool for segmentation and radiomics analysis of MR images implemented in Matlab.

## Conferences

**29–30 September 2022**
GIMC-SIMAI Young Workshop, Pavia. Participation in the minisymposium "Mathematical models in biomedicine: from optimization to machine learning". Talk title: "Quantitative imaging and radiomics: assessment of radiomics feature reliability in medical imaging".

**18–22 September 2022**
Young Applied Mathematicians Conference, Arenzano.

## Awards

**2022**
Best poster award at the 14th IEEE EMBS-SPS International Summer School on Biomedical Imaging. Poster title *"Quantitative imaging and radiomics: relationship between segmentation accuracy and feature error"*, Saint-Jacut de la Mer, Brittany, France

**2015**
Named in the National Register of Excellence (*Albo Nazionale delle Eccellenze, MIUR*), Genoa, Italy.

## Organizing committee

**17–21 April 2023**
Invitation to be part of the student committee for ISBI conference, International Symposium on Biomedical Imaging, Cartagena de Indias, Colombia

## Computational skills

Matlab, Python, R, Latex, Microsoft Office

## Languages

**Italian** Mother tongue
**English** Advanced