

# Marina Paola Gardella Oddone

<https://marinagardella.github.io/>

## Curriculum Vitae

Last update: September 23, 2022

Date of Birth: September 3, 1992

Nationality: Uruguayan

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### ABOUT ME

I am a PhD student at Centre Borelli, in École Normale Supérieure Paris-Saclay, under the supervision of Dr. Miguel Colom, Pr. Jean-Michel Morel, and Pr. Pablo Muse. Here, I am part of the Workgroup for Signal and Image Processing. My main focus is on image forgery detection through noise analysis.

### EDUCATION

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| 2020 - Present | <b>Ph.D. in Mathematics</b> , Centre Borelli, École normale supérieure Paris-Saclay, Université Paris-Saclay. Supervisors: Miguel Colom, Jean-Michel Morel and Pablo Musé. <b>Paris Region grant</b> . |
| 2017 - 2019    | <b>Masters in Mathematical Engineering</b> , School of Engineering, Universidad de la República. <b>CAP grant</b> .  |
| 2011 - 2017    | <b>Bachelor in Mathematics</b> , School of Sciences, Universidad de la República.  |
| 2012 - 2016    | <b>Bachelor in Economics</b> , School of Economics Sciences and Administration, Universidad de la República.   |

### RESEARCH

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| International<br>Peer-reviewed<br>Journal Articles | A. Nicolai, Q. Bammey, <b>M. Gardella</b> , T. Nikoukhah, O. Boulant, I. Bargiotas, N. Monzón, C. Truong, B. Kerautret, P. Monasse, M. Colom (2022). The approach to reproducible research of the Image Processing On Line (IPOL) journal. <i>Informatio</i> .<br><br><b>M. Gardella</b> , P. Musé, J.-M Morel, M. Colom (2021). Forgery Detection in Digital Images by Multi-Scale Noise Estimation. <i>Journal of Imaging</i> .   |
| International<br>Peer-reviewed<br>Conferences      | <b>M. Gardella</b> , T. Nikoukhah, Y. Li, Q. Bammey (2022). The Impact of JPEG Compression on Prior Image Noise. ICASSP 2022-2022 IEEE International Conference on Acoustics, Speech and Signal Processing.<br><br>Q. Bammey, T. Nikoukhah, <b>M. Gardella</b> , R. Grompone von Gioi, M. Colom, J.-M. Morel (2022). Non-Semantic Evaluation of Image Forensics Tools: Methodology and Database. IEEE/CVF Winter Conference on Applications of Computer Vision.<br><br><b>M. Gardella</b> , P. Musé, J.-M Morel, M. Colom (2021). NoiseSniffer: a Full Automatic Image Forgery Detector Based on Noise Analysis. 9th IEEE International Workshop on Biometrics and Forensics. <b>Best Paper Award</b> . |
| Book Chapters                                      | Q. Bammey, M. Colom, T. Ehret, <b>M. Gardella</b> , Rafael Grompone, J.-M Morel, T. Nikoukhah, D. Perraud, "Authentication et insertion de données cachées", chapter in "Sécurité multimédia", ISTE Science, 2021.  |

## Talks and Workshops

**Workshop Borelli MLBriefs** (2022). Contributed with two ML-Briefs IPOL articles with their corresponding online demos.

**M. Gardella** (2022). “Procesamiento de imágenes falsas.” Women in Data Science (WIDS) Montevideo 2022. April, 2022.

**M. Gardella**, T. Nikoukhah, Q. Bammei (2021). Détection automatique de la falsification d’images. Congrès des Jeunes Chercheuses et Chercheurs en Mathématiques Appliquées 2021. October 27-29, 2021, École polytechnique, Palaiseau, France.

**M. Gardella** (2021). Enhanced Image Forensic Tools for Fact-Checkers. Conference for Truth and Trust Online (TTO) 2021. October 7 and 8, 2021. Online.

**M. Gardella** (2017). Estimation of the Inflationary feedback coefficient in Uruguay 1985-2017. IV Conference in applied statistics. October 2017. La Paloma, Uruguay.

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## PARTICIPATION IN PROJECTS

2022 - Present **Vera.ai**. Project co-funded by the European Commission and the UK and Swiss authorities with the goal of developing and deploying a variety of artificial intelligence solutions against disinformation.

2021 **Envisu4**. Project awarded with a grant by the International Fact-Checking Network. During 6 month, we developed together with the AFP Medialab and the CERTH Institute an enhanced and improved version of the InVid verification plug-in which has been already released.

2017 - 2021 **Challenge DEFALS**. Image forgery detection challenge organised by the French National Research Agency (ANR) and the General Directorate for Armament (DGA).

2015 **MOEBIUS**. Project carried out by University professors together with high school teachers with the purpose of developing students’ capabilities to face different problems.

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## TEACHING

2021 - Present Préparation au concours de l’agrégation externe de sciences économiques et sociales, ENS Paris-Saclay, Université Paris-Saclay.

2020 - 2021 Teaching Assistant, Institut Universitaire de Technologie de Sceaux, Université Paris-Saclay.

2014 - 2019 Teaching Assistant, Department of Mathematics, School of Engineering, University of the Republic.

2015 - 2016 Teaching Assistant, Department of quantitative Methods, School of Economics Sciences and Administration, University of the Republic.

2013 Teaching Assistant, Department of Mathematics, School of Sciences, University of the Republic