

JHONY H. GIRALDO

Assistant Professor at Télécom Paris, Institut Polytechnique de Paris
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EDUCATION

Doctor of Philosophy in Applied Mathematics La Rochelle Université, Laboratoire MIA (Mathématiques, Image, et Applications), La Rochelle, France Thesis: <i>Graph-based Algorithms in Computer Vision, Machine Learning, and Signal Processing</i>	Oct 2019 - Sep 2022
Master of Science in Engineering (with Honors) Universidad de Antioquia, Medellin, Colombia	Aug 2016 - Jun 2018
Bachelor of Science in Electronics Engineering Universidad de Antioquia, Medellin, Colombia	Feb 2011 - Mar 2016

PROFESSIONAL EXPERIENCE

Assistant Professor Computer Vision and Machine Learning, Télécom Paris, Institut Polytechnique de Paris.	Oct 2022 - Present
Visiting Research Scholar Geometric Deep Learning, EPFL, LTS4 laboratory. Graph Representation Learning, CentraleSupélec, Inria, Université Paris-Saclay. Computer Vision, Università di Napoli Parthenope, CVPR Lab “Alfredo Petrosino”. Graph Signal Processing, University of Delaware.	Oct 2024 - Nov 2024 Jan 2022 - May 2022 Aug 2021 - Nov 2021 Jun 2018 - Aug 2018
Research Assistant Graph Representation Learning, La Rochelle Université, Laboratoire MIA. Graph Signal Processing, University of Delaware. Computer Vision and Pattern Recognition, Universidad de Antioquia.	Oct 2019 - Sep 2022 Sep 2018 - Aug 2019 Aug 2016 - Jun 2018

GRANTS, FUNDING SOURCES, AND AWARDS

- Agence Nationale de la Recherche (ANR) Project DeSNAP “*Deep Simplicial Neural Networks for Advanced Geometry Processing*”. **Role:** PI. € 337,862. 2025 - 2029.
- NVIDIA Academic Grant Program Award “*Bridging the Gap between Foundation Models and Camera Trap Image Recognition*”. **Role:** PI. 10,000 A100 GPU-Hours. Jan 2025 - Jun 2025.
- Agence Nationale de la Recherche (ANR) Project SODA “*System On Chip Design leveraging Artificial Intelligence*”. **Role:** Team Member. € 531,000. 2023 - 2027.
- Hi! Paris Postdoc Fellowship (Aref Einizade) “*Learning Multi-domain Graphs from Data via Graph Machine Learning: Theoretical Analysis and Applications*”. **Role:** PI. € 120,000. 2023 - 2025.
- Best paper award of the IEEE/CVF ICCV Artificial Social Intelligence Workshop 2023, “*Few Labels are Enough! Semi-supervised Graph Learning for Social Interaction*”.

SELECTED PUBLICATIONS

- Dorian Gailhard, Enzo Tartaglione, Lirida Naviner, **Jhony H. Giraldo**, “*HYGENE: A Diffusion-based Hypergraph Generation Method*”, AAAI (2025).
- Aref Einizade, Fragkiskos D. Malliaros, **Jhony H. Giraldo**, “*Continuous Product Graph Neural Networks*”, NeurIPS (2024).
- **Jhony H. Giraldo et al.** “*Higher-Order GNNs Meet Efficiency: Sparse Sobolev Graph Neural Networks*”, IEEE Transactions on Signal and Information Processing over Networks, 2024.

- Hamza Rami, **Jhony H. Giraldo**, Nicolas Winckler, Stéphane Lathuilière, “*Privacy-Preserving Adaptive Re-Identification without Image Transfer*”, ECCV (2024). (**Oral**).
- Jhon A. Castro-Correa, **Jhony H. Giraldo**, Mohsen Badiéy, Fragkiskos D. Malliaros. “*Gegenbauer Graph Neural Networks for Time-varying Signal Reconstruction*”, IEEE Transactions on Neural Networks and Learning Systems, 33(9), pp. 11734-11745, 2024.
- **Jhony H. Giraldo**, Konstantinos Skianis, Thierry Bouwmans, Fragkiskos Malliaros “*On the Trade-off between Over-smoothing and Over-squashing in Deep Graph Neural Networks*”, ACM CIKM (2023). (**Oral**).
- **Jhony H. Giraldo**, Sajid Javed, Thierry Bouwmans, “*Graph Moving Object Segmentation*”, IEEE Transactions on Pattern Analysis and Machine Intelligence, 44(5), pp. 2485-2503, 2022.
- **Jhony H. Giraldo**, Arif Mahmood, Belmar Garcia-Garcia, Dorina Thanou, Thierry Bouwmans, “*Reconstruction of Time-varying Graph Signals via Sobolev Smoothness*”, IEEE Transactions on Signal and Information Processing over Networks, 8, pp. 201-214, 2022.

SELECTED PATENTS

- Hamza Rami, Nicolas Winckler, **Jhony H. Giraldo**, Stéphane Lathuilière, “Method, Device, and Computer Program for Adapting an ANN Model for Person Re-identification on a Target Domain”, U.S. Patent Application No. 18/587,155 (2024).

SUPERVISING ACTIVITIES

Postdoctoral Researchers

- Aref Einizade, Postdoctoral Researcher, Graph Neural Networks. Nov 2023 - Present.

Ph.D. Students

- Sarra Khaïri, Ph.D. Student at Télécom Paris, Computer Vision. Jun 2024 - Present.
- Dorian Gailhard, Ph.D. Student at Télécom Paris, Hypergraph Generation. May 2024 - Present.
- Vahan Martirosyan, Ph.D. Student at CentraleSupélec, Graph Neural Networks. Nov 2023 - Present.
- Gabriele Spadaro, Ph.D. Student at University of Turin, Computer Vision. Feb 2023 - Present.

Master Students

- Julian Santamaria, Master Student at Universidad de Antioquia, Computer Vision. Feb 2024 - Present.

Alumni:

One Ph.D. student and three master’s students.

ORGANIZING COMMITTEE

- Co-organizer, Learning on Graphs Conference, Local Meetup, Paris, France, 2024.
- Program Chair, International Workshop “LatinX in CV” (LXCV) Research at IEEE/CVF International Conference on Computer Vision (ICCV), Paris, France, 2023.
- Track Chair, Special Session “GraDSci: Graph Data Science and Applications” at IEEE International Conference on Data Science and Advance Analytics (DSAA), Thessaloniki, Greece, 2023.
- Senior Organization Member, 8th Junior Conference on Data Science and Engineering (JDSE), Paris, France, 2023.

PROFESSIONAL SERVICE P

Area Chair Conferences: British Machine Vision Conference (BMVC), Glasgow, UK, 2024.

Reviewer: CVPR (2022, 2023, 2024, 2025), ICCV 2023, AISTATS 2023, ECCV (2022, 2024), WACV 2025, JMLR, IEEE T-NNLS, IEEE T-KDE, IEEE T-IP, IEEE T-SP, IEEE T-MM, IEEE T-SIPN, CVIU.