

JHONY H. GIRALDO

Assistant/Associate Professor at Télécom Paris, Institut Polytechnique de Paris

jhony.giraldo@telecom-paris.fr, <https://jhonygiraldo.github.io/>

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, Medellín, Colombia	Aug 2016 - Jun 2018
Bachelor of Science in Electronics Engineering Universidad de Antioquia, Medellín, Colombia	Feb 2011 - Mar 2016

PROFESSIONAL EXPERIENCE

Assistant/Associate Professor (Maître de Conférences) 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 Gaillard, Enzo Tartaglione, Lirida Naviner, **Jhony H. Giraldo**, “*HYGENE: A Diffusion-based Hypergraph Generation Method*”, AAAI (2025). (**Senior Author**).
- Gabriele Spadaro, Marco Grangetto, Attilio Fiandrotti, Enzo Tartaglione, **Jhony H. Giraldo**, “*WiGNet: Windowed Vision Graph Neural Network*”, IEEE/CVF WACV (2025). (**Oral**) (**Senior Author**).
- Amadou Siaka Sangare, Nicolas Dunou, **Jhony H. Giraldo**, and Fragkiskos D. Malliaros. “*A Fused Gromov-Wasserstein Approach to Subgraph Contrastive Learning*”, TMLR, 2025.

- Aref Einizade, Fragkiskos D. Malliaros, **Jhony H. Giraldo**, “*Continuous Product Graph Neural Networks*”, NeurIPS (2024). (**Senior Author**).
- **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 Badiy, 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). (**Collaboration with the Company Atos**).

SUPERVISING ACTIVITIES

Currently: One Postdoc on Geometric Deep Learning, two Ph.D. students on Computer Vision, two Ph.D. students on Geometric Deep Learning, and one master’s student on Computer Vision.

Alumni: One Ph.D. student, two visiting Ph.D. students, and three master’s students.

ORGANIZING COMMITTEE

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

PROFESSIONAL SERVICE

Area Chair Conferences: BMVC 2024.

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

SELECTED INVITED TALKS

- “*Keynote: A Journey Through Graphs for Spatiotemporal Analysis*”, Presented on September 2024 at the MATHIAS Days International Conference by **TotalEnergies R&D** 2024, France.
- “*Webinar: A Journey Through Graphs for Spatiotemporal Analysis*”, Presented on October 2024 at the DEGAS Webinar Series 2024, as a part of the **IEEE SPS Data Science Initiative**.
- “*Hypergraph Generation and Continuous Product GNNs*”, Presented between November-December 2024 at: i) **EPFL**, Switzerland; and ii) **ICPR** Workshop G2SP-CV, Virtual.