Charlotte Laclau

Associate professor
Qualification in sections 26, 27 and 61

Télécom Paris, LTCI
19 place Marguerite Perey, 91120 Palaiseau, France
✉ *charlotte.laclau@telecom-paris.fr*
Age: 35

Professional appointments

2022– present **Associate professor**, Télécom Paris, Institut Polytechnique de Paris, LTCI, S2A team.
- Fairness in Machine Learning
- Representation learning for complex data
- Game theory and Deep Learning

2018–2022 **Associate professor**, Télécom Saint-Etienne/Hubert Curien Laboratory, Data Intelligence team.

2016–2018 **Post-doc. fellow**, Grenoble computer science laboratory, AMA team.
Working on ranking models for recommendation systems with two companies: Kelkoo and Purch (FUI Project).

2012 – 2016 **PhD in Computer Science, specialization in Data Science**, *Paris Sorbonne Cité University*, Machine Learning for Data Science (MLDS) team.
- PhD supervisor: Mohamed Nadif
- Subject: Hard and fuzzy block clustering algorithms for high dimensional data

Research activities

Ongoing Projects and Grants

PI of the ANR Project REFAIR, Revisiting Fairness on Graphs.

Member of the European Project ELIAS, European Lighthouse of AI for Sustainability.

Member of ANR project Diké, Bias, fairness and ethics of compressed NLP models, Collaboration with University of Lyon 2 (ERIC) and NaverLabs Grenoble.

Student Supervision

Ongoing.
- Present - F. Torba: Natural language processing in the context of responding to complex calls for tenders, co-supervised with C. Gravier and AItenders
- Present - T. Leteno: Fairness in NLP, co-supervised with C. Gravier and A. Gourru
- Present - M. Perez: Fairness and (dynamic) graphs, co-supervised with F. D'Alche-Buc.
- Present - L. Marey: Fairness and Graphs, co-supervised with T. Viard and Deezer Research team.
- Present - R. Serrano: Graph and Missing Values, co-supervised with C. Largeron and B. Jeudy.

Past.
- 2020-2021 - J. Tissier: Representation learning for dynamic graphs (100%)
- 2016-2018 - S. Sidana: Recommendation systems for online advertising, co-supervised with M.R. Amini

Community service

Conferences.
- 2023: CAp@Strasbourg, National Conference on Machine Learning, Chair of the Program Comity with R. Gaudel.
- 2022 SSFAM/MALIA@JdS: organization of a session on geometry and machine Learning with Franck Iutzeler.
- 2022 @ECML-PKDD: Co-chair for the workshop/tutorial track; PC member for the journal track
- 2021: CAp@Saint-Etienne, National Conference on Machine Learning, program and organization comity
- 2018: SSFAM@SFdS session, 50èmes Journées de Statistique de la SFDS

Reviewer.
Data Mining and Knowledge Discovery, Machine Learning Journal, Statistics and Computing, ICML, NeurIPS, IJCAI, ECIR, AIStat, SIGIR

Other

2018-2020 **Co-head of the ATLAS research group, GdR MADICS**.
On Machine Learning applied to healthcare problems
- Co-organisation of two workshops
- Co-organisation of a 2-days training workshop in collaboration with the Institute for Brain and Spinal Cord.

2019-2022 **Elected member of the MALIA research group of SFDS**.

- Training course of DataViz with Python (JDS 2021)
- Organisation of a session on Privacy preserving Machine Learning (JDS 2020)
- Organisation of a session on Geometry and Machine Learning (JDS 2022)

2018-2021 **Vice-President of the Société Savante Francophone d'Apprentissage Machine (SSFAM)**.

Publications

Latest peer-reviewed conferences

P. Krzakala, J. Yang, R. Flamary, F. d'Alché-Buc, C. Laclau, M. Labeau., *Any2Graph: Deep End-To-End Supervised Graph Prediction With An Optimal Transport Loss*, NeurIPS, 2024.

R. Serrano, C. Laclau, B. Jeudy, C. Largeron., *Reconstructing the Unseen: GRIOT for Attributed Graph Imputation with Optimal Transport.*, ECML-PKDD, 2024.

Tissier J., Laclau C., *Understanding the Benefits of Forgetting when Learning on Dynamic Graphs*, ECML-PKDD, 2022.

Vesseron N., Redko I., Laclau C., *Deep Neural Networks Are Congestion Games: From Loss Landscape to Wardrop Equilibrium and Beyond*, AISTAT, 2021.

Laclau C., Redko I., Choudhary M., Largeron C., *All of the Fairness for Edge Prediction with Optimal Transport*, AISTAT, 2021.

Redko I. , Laclau C., *On Fair Cost Sharing Games in Machine Learning*, AAAI, 2019.

Laclau C., Redko I., Matei B., Brault V., Bennani Y., *Co-clustering through Optimal Transport*, ICML, 2017.

Latest journals

V. Brault, E. Devijver and C. Laclau., *Mixture of segmentation for heterogeneous functional data.*, Electronic Journal of Statistics, 2024.

A. Burashnikova, M. Clausel, C. Laclau, F. Iutzeler, Y. Maximov, M-R. Amini., *Learning over no-Preferred and Preferred Sequence of items for Robust Recommendation*, Journal of Artificial Intelligence Research, 2021.

S. Sidana, M. Trofimov, O. Horodnytskyi, C. Laclau, Y. Maximov, M-R. Amini, *User preference and embedding learning with implicit feedback for recommender systems*, Data Mining and Knowledge Discovery, pages 1–25, 2021.

Teaching Activities

Since 2022 **Télécom Paris**.

Co-supervising the AI Data Expert and MLOps and the Multimodal and Autonomous AI post master degrees at Télécom Paris

Statistics, Introduction to Machine Learning (classification), Machine Learning on Graphs, Recent Advances in Responsible AI, Machine Learning on High Dimension Data.

2018 - 2022 **Télécom Saint-Etienne (Engineering school)**.

Introduction to programming and algorithmics, Introduction to Machine Learning, Advanced Machine Learning, Javascript for web application (frond and backend), Cloud Computing (with AWS), Big Data Project (final year)

2017 **Statistical Tools for Data Science - Doctoral school**, Grenoble University.

Development of a doctoral training course for PhD students from various domains wishing to learn the basics of data analysis and machine learning.

2017–2018 **Ensimag (Engineering School)**, Grenoble.

Data Analysis and multidimensional statistics.