Nicolas Jouvin

Post-doctorate researcher in Statistics

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Born on November 7, 1993

Current position

2021-... **Postdoc in statistics**, Ecole Centrale Lyon - Institut Camille Jordan.

Sparse estimation of mixture models Supervised by Yohann De Castro (EC Lyon).

Education

2017 - 2020 PhD in applied statistics, SAMM - Institut Curie.

High-dimensional data and graph clustering with discrete latent variable models. Supervisors: Pierre Latouche (MAP5), Charles Bouveyron (J.A. Dieudonné) & Alain Livartowski (Institut Curie).

2021 Classification Society Dissertation Award (Honourable mention)

- 2016 2017 Master in Mathematics, Computer Vision and Machine Learning, ENS Cachan.
- 2015 2016 Master in Applied Mathematics, Université Paris I Panthéon-Sorbonne.
- 2012 2015 Bachelor in Applied Mathematics, Université Paris I Panthéon-Sorbonne.

Research experience

Publications and preprints

Nicolas Jouvin, Charles Bouveyron, and Pierre Latouche (2021). "A Bayesian Fisher-EM algorithm for discriminative Gaussian subspace clustering"

Version: HAL or Journal

Etienne Côme, Nicolas Jouvin, Pierre Latouche, and Charles Bouveyron (2021). "Hierarchical clustering with discrete latent variable models and the integrated classification likelihood". French. In: Advances in Data Analysis and Classification

Version: HAL or Journal

Nicolas Jouvin, Pierre Latouche, Charles Bouveyron, Guillaume Bataillon, and Alain Livartowski (2020). "Greedy clustering of count data through a mixture of multinomial PCA". in: *Computational Statistics*

Version: HAL or Journal

Talks and scientific communications

- July 2021 **2021 ISBA World Meeting (remote)**, Joint clustering and dimension reduction with the Bayesian Fisher-EM algorithm, Virtual.
- June 2021 **52^e Journées de Statistique (remote)**, A Bayesian Fisher-EM algorithm for discriminative Gaussian subspace clustering, Virtual.
- April 2021 **Séminaire de statistiques du MAP5 (remote)**, A Bayesian Fisher-EM algorithm for discriminative Gaussian subspace clustering, Laboratoire MAP5, Université de Paris, France.
- April 2021 **Séminaire du LMO (remote)**, Model-based hierarchical clustering with the integrated classification likelihood, Laboratoire de mathématiques d'Orsay, Orsay, France.
- March 2021 **Séminaire du MIA-Paris (remote)**, Greedy clustering of count data through a mixture of multinomial PCA, Laboratoire MIA-Pairs, INRAE, France.

- January 2021 **Séminaire du MSI-DHlab (remote)**, Clustering high-dimensional count data through a mixture of multinomial *PCA*, Maison de la Modélisation, de la Simulation et des Interactions, Nice, France.
 - June 2019 **SAMM laboratory PhD seminar**, Clustering anatomopathological reports with a mixture of multinomial PCA, Université Paris 1 Panthéon-Sorbonne, Paris, France.
 - June 2019 **51^e Journée de Statistiques**, *Mixture of multinomial PCA*, Université de Lorraine, Nancy, France.
- January 2019 The mathematics of imaging CIRM winter school, Mixture of multinomial PCA: towards a joint analysis of histopathological texts and images, Centre international de recherche en mathématiques, Marseille, France..
 - November **Welcome day for PhD students**, Fondation Science Mathématiques de Paris, 2018 Paris, France.

Research internships

- April-Sept. **Hierarchical clustering in discrete finite mixture models**, MAP5, supervised 2017 by Pr. Pierre Latouche (MAP5) & Pr. Charles Bouveyron (MAP5).
- June-July 2016 Comprehensible models for regression and classification, LAL CDS, supervised by Pr. Balazs Kegl.

Teachings

- 2017–2020 **Teaching assistant**, 1^{st} , 3^{rd} and 4^{th} year of undergraduate, Université Paris 1.
 - o 30h/y, L1 MIASHS, Calculus
 - 24h/y, M1 MAEF, Introduction to data analysis (statistics, supervised and unsupervised learning, visualisation, programming with R)
 - o 24h/y, L3 MIASHS, scientific computing with Python (Numpy, Pandas, scikit-learn).
- 2015 2017 **Tutoring**, Université Paris 1, Mathematics for the first year of undergraduate studies.

Skills

Languages French (native), English (fluent)

Computer • Coding: R, Python, Matlab (notions)

skills • LATEX, Git, Mardown

Hobbies

Sports Climbing, Hiking

Literature Philosophy, Science-fiction