Julien Martinelli

PhD graduate

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Born 05/26/1994

Experience

Feb. 2022 - **Postdoctoral Researcher**, Aalto University, Probabilistic Machine Learning team, Helsinki.
Supervised by Samuel Kaski, Markus Heinonen and Vikas Garg

Education

Oct. 2018 - Feb. 2022 **PhD in Computer Science**, *On learning mechanistic models from time series data with applications to personalised chronotherapies*, Inria Saclay, Institut Curie Saint-Cloud, École polytechnique.
Supervised by François Fages and Annabelle Ballesta

Apr.-Sept. 2018 **Summer Intern**, *Learning mechanistic models from time series data*, Inria Saclay, Lifeware Team.
Supervised by François Fages

2017 – 2018 **Masters in Random Modelling, Finance and Data Science, M2MO**, *Data Science track*, Université de Paris.

May-July 2017 **Summer Intern**, *Random matrix theory, Application to community detection within networks*, Laboratoire MAP5, Université de Paris.
Supervised by Manon Defosseux

2016 – 2017 **First year of Masters in Applied Mathematics**, Université de Paris.
ranked 1^{st}

2012 – 2015 **BSc. Mathematics**, Université de Paris.

Publications

Publications

2022 **Accelerating metabolic models evaluation with statistical metamodels: application to Salmonella infection models**, *Clémence Frioux, Sylvie Huet, Simon Labarthe, Julien Martinelli, Thibault Malou, David Sherman, Marie-Luce Taupin, Pablo Ugalde-Salas*, Accepted for publication in *ESAIM Proceedings & Surveys*.

2021 **A mathematical model of the circadian clock and drug pharmacology to optimize irinotecan administration timing in colorectal cancer**, *Janina Hesse, Julien Martinelli, Ouda Aboumanify, Annabelle Ballesta and Angela Relógio, Computational and Structural Biotechnology*.

2021 **Model learning to identify systemic regulators of the peripheral circadian clock**, *Julien Martinelli, Xiao-Mei Li, Sandrine Dulong, Sylvain Soliman, Francis Lévi, François Fages and Annabelle Ballesta, Bioinformatics*.

Proceedings

2023 **Multi-Fidelity Bayesian Optimization with Unreliable Information Sources**, *Petrus Mikkola, Julien Martinelli, Louis Filstroff and Samuel Kaski*, Accepted for publication in *Proceedings of the International Conference on Artificial Intelligence and Statistics (AISTATS)*.

2019 **A statistical unsupervised learning algorithm for inferring reaction networks from time series data**, *Julien Martinelli, Jeremy Grignard, Sylvain Soliman and François Fages, ICML 2019-Workshop on Computational Biology*.

2019 **On Inferring Reactions from Data Time Series by a Statistical Greedy Heuristics**, *Julien Martinelli, Jeremy Grignard, Sylvain Soliman and François Fages*, Proceedings of *the Seventeeth International Conference on Computational Methods in Systems Biology*, 352-355.

Submitted

2022 **Reactmine: a search algorithm for inferring chemical reaction networks from time series data**, *Julien Martinelli, Jeremy Grignard, Sylvain Soliman, Annabelle Ballesta and François Fages.*

Oral Communications

Invited Talks

February 2023 **Biostatistics Seminar**, *Bordeaux Population Health Center.*

January 2023 **Public Seminar - CRiStAL team**, *Université de Lille.*

November 2022 **AI Day**, *Helsinki.*

July 2022 **Workshop on Hybrid models and methods in systems medicine**, *Institut Curie, Paris.*

Talks

August 2022 **Finnish Center for Artificial Intelligence - Get together**, *Helsinki.*

August 2021 **CEMRACS - Data Assimilation and Reduced Modeling for High Dimensional Problems**, *Luminy.*

July 2021 **Twentieth European Conference on Computational Biology**, *Remote.*

June 2021 **Tenth biennial of the Society of Applied and Industrial Mathematics (SMAI)**, *La Grande Motte.*

May 2021 **Workshop Modelling Heterogeneous populations with applications in biology**, *Remote.*

April 2021 **Monthly seminar BIOSS-IA**, *Remote.*

May 2019 **BIOSS-IA Days**, *Laboratoire d'Informatique Fondamentale d'Orléans.*

December 2018 **BIOSS-IA Days**, *Pasteur Institute, Paris.*

Poster Sessions

July 2021 **JOBIM 2021**, *Remote.*

January 2021 **Winter school AI4Health**, *Remote.*

June 2019 **Summer School Formal Modeling of Biological Regulatory Networks**, *Porquerolles.*

Teaching

2022 – 2023 **Teaching Assistant**, *MSc.*, Machine Learning: Advanced Probabilistic Methods, Aalto University.

2019 – 2021 **Teaching Assistant**, *2nd year BSc.*, Analysis 4, Multivariate functions, Université de Paris.

2018 – 2019 **Teaching Assistant**, *1st year BSc.*, Mathematics and Calculus 2, Université de Paris.

Programming skills

Programmation Python, R, Matlab, LaTeX, Shell

Tools GitHub, Vim

Languages

Native French, fluent English