Marion CHAUVEAU

Education

- 2021 2022 **École Normale Supérieure Paris-Saclay**, 2^{nd} year of Master's degree in applied mathematics and machine learning **Mathématiques/Vision/Apprentissage** (**MVA**), Gif-sur-Yvette.
- 2020 2021 **École Normale Supérieure-ICFP**, 2^{nd} year of Master's degree in physics **Soft matter and biological physics ENS-ICFP**, Paris.
- 2018 2019 École Normale Supérieure Paris-Saclay, Licence Fundamental physics, Cachan.
- 2015 2018 Clemenceau High School, Scientific CPGE PCSI / PSI* (preparatory classes), Nantes.

Research

- 2022 2024 **PhD thesis (in progress)**, TIMC-Grenoble & Gulliver laboratory (ESPCI Paris). Generative models for protein sequences under the suppervision of Ivan Junier & Olivier Rivoire.
 - 2022 **Research Internship**, Centre Borelli, ENS Paris-Saclay.

 Human motion analysis via graph signal dictionary learning supervised by Laurent Oudre (5 months).
 - 2021 **Research Internship**, Collège de France (CIRB), Paris. Inference of generative models for bacterial genome supervised by Olivier Rivoire (4 months).
 - 2019 **Research Internship**, Plasma Physics Laboratory (LPP) at Polytechnique, Gif-Sur-Yvette. Study of density and potential fluctuations in a magnetised toric plasma supervised by Pierre Morel.
 - 2019 **Research Internship**, Research Laboratory in Hydrodynamics, Energy and Atmospheric Environment (LHEEA), Centrale Nantes.

Study of the performances of the small swell water tank beach supervised by Félicien Bonnefoy.

Publications & Conferences

Marion Chauveau, Antoine Mazarguil, Laurent Oudre. *Graph dictionary learning for the study of human motion*. In *Proceedings of the 46th Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBC)*, 2024, pp. 1–5.

Sylvain W. Combettes, Paul Boniol, Antoine Mazarguil, Danping Wang, Diego Vaquero-Ramos, **Marion Chauveau**, Laurent Oudre, Nicolas Vayatis, Pierre-Paul Vidal, Alexandra Roren, *et al. Arm-CODA : A Data Set of Upper-limb Human Movement During Routine Examination. Image Processing On Line*, vol. 14, pp. 1–13, 2024.

- 2024 Journées de la Physique Statistique, Paris.
 - Short talk "Generative models of protein sequences".
- 2023 5th course on Multi-scale Integration in Biological Systems, Institut Curie, Paris.
 - Short talk "Generative models of protein sequences".
- 2023 Biological sequence variation from statistical modeling to structure, function, and evolutionary dynamics, Institut d'Études Scientifiques, Cargèse.
 - Poster "Overcoming undersampling in generative models for biological sequences".

Teaching

- 2023 2024 Oral examination in Physics and Chemistry (CPGE "Khôlle"), Lycée Descartes, Tours.
 - 2023 **Practical works in physics**, Sorbonne Université, campus Jussieu, Paris V. Supervision of L1 students for practical work in physical mechanics during 1 semester.
 - 2023 **Numerical physics projects**, Sorbonne Université, campus Jussieu, Paris. Supervision of L1 students for numerical physics projects (in python) during 1 semester.
 - 2019 **Teaching Internship**, Lycée de Cachan.
 - 2 hours per week in a class to help a teacher during pratical work in physics.

Other