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# Clément Moreau

#### Education

- 2017–2020 **PhD in Applied Mathematics**, *Inria Sophia-Antipolis*, supervised by Laetitia Giraldi, Pierre Lissy and Jean-Baptiste Pomet.

  Controllability in finite and infinite dimension of life-inspired nonlinear systems
- 2016–2017 **Invited research year**, *University of York (Royaume-Uni)*, supervised by Hermes Gadêlha.

  Efficient semi-analytical numerical methods for solving the elastohydrodynamics of filaments
- 2015–2016 Master's degree in "Mathematics and Applications", Universit'e Pierre et Marie Curie, with honours.
- 2013–2015 Master 1 (4th year of university) in "Pure Mathematics", Ecole Normale Supérieure de Cachan and Université Paris Diderot, with honours.
- 2013–2014 Bachelor's degree in Mathematics, Ecole Normale Supérieure de Cachan and Université Paris Diderot, with honours.
  - 2013 National competitive examination for admission to the French "Grandes Ecoles" Entered the Ecole Normale Supérieure de Cachan.
- 2011–2013 Preparatory classes: two-year undergraduate intensive course in mathematics and physics (MPSI/MP\*), Lycée Clemenceau, Nantes.
  - 2011 Baccalauréat with major in maths, Lycée Clemenceau, Nantes, first class honours.

#### Research Publications

- 2018 A practical and efficient asymptotic coarse-graining model for the elastohydrodynamics of slender-rods and filaments (with Hermes Gadêlha et Laetitia Giraldi), in preparation.
- 2017 Addendum to "Local Controllability of the Two-Link Magneto-Elastic Micro-Swimmer" (with Laetitia Giraldi, Pierre Lissy et Jean-Baptiste Pomet), IEEE Transactions on Automatic Control, to be published.

### Teaching

2018 **Tutor**, Institut Supérieur d'Economie et de Management (ISEM), Nice. « Mathématiques 2 »(calculus to first-year undergraduate students)

### Talks

- Jan 2018 12th International Young Researchers Workshop on Geometry, Mechanics and Control, Università di Padova, Italy.

  Controllability of a magneto-elastic micro-swimmer
- Nov 2017 **PGMO Days 2017**, EDF Lab Paris Saclay, France. Controllability of a magneto-elastic micro-swimmer

## Research Internships

- 2016 Master's internship, Université Paris-Dauphine and Inria Sophia-Antipolis, supervised by Laetitia Giraldi, Pierre Lissy and Jean-Baptiste Pomet.

  Micro-swimming and partial controllability
- 2015 **Stage de master 1**, *Ecole Nationale Supérieure des Mines de Paris*, Centre Automatique et Systèmes (CAS), supervised by François Chaplais.

  Real-time sub-optimal control of hybrid vehicles
- 2014 **Stage de licence**, *Ecole Normale Supérieure de Cachan*, Centre des Mathématiques et de Leurs Applications (CMLA), supervised by Enric Meinhardt-Llopis and Jean-Michel Morel.

Prokudin-Gorskii's photos reconstruction

## Spoken Languages

French Native speaker

English Fluent (C2)

German B2