Hugo Moeneclaey

Education

2019–2022 **PhD on homotopy type theory**, *Université de Paris*, IRIF, Advised by Hugo Herbelin.
2017–2018 **Master of pure mathematics**, *Université Pierre et Marie Curie*.
2015–2017 **Master of research in computer science**, *Université Paris-Saclay*, MPRI.
2014–2015 **Bachelor in mathematics**, *Université Paris-Diderot*.
2014–2015 **Bachelor in computer science**, *Université Paris-Diderot*.
2012–2014 **Classe préparatoire**, *Lycée Henri IV*, Paris, Joined ENS Cachan.

Internships

2019 **Type theory research internship**, *Université Paris-Diderot*, France.
Toward a cubical type theory with univalence by definition with Hugo Herbelin.

2018 **Type theory research internship**, *Stockholm University*, Sweden.
Higher monoids in two-level type theory with Peter LeFanu Lumsdaine.

2018 **Homotopy theory master thesis**, *Université Pierre et Marie Curie*, France.
Quasi-categories and complete segal spaces with Georges Maltsiniotis.

2017 **Proof theory research internship**, *Technische Universität Wien*, Austria.
Expansion proofs for arithmetic with Stefan Hetzl.

2016 **Type theory research internship**, *Chalmers University of Technology*, Sweden.
Finitary Higher inductive types in the setoid model with Peter Dybjer.

2015 **Signal processing research internship**, *École Normale Supérieure Cachan*, France.
A high quality method to resample an image by a homography with Enric Meinrhardt-Llopis and Jean-Michel Morel.

Publications

LICS 2021 **Parametricity and semi-cubical types**.
MFPS 2017 **Finitary higher inductive types in the groupoid model**, *with Peter Dybjer*.

Teaching & Advising

2019–2022 **Teaching assistant**, *Université de Paris*.
- *Homotopy type theory*, Master LMFI.
- *Introduction to databases* , Bachelor.
- *Differential equations for biologists*, Bachelor.
- *Reading and writing scientific documents*, Bachelor.

2021 **Bachelor internship**, *Université de Paris*.
Advised Louis Gervais on *Learning Coq through synthetic homotopy theory*

Computer skills

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Coq, Agda	Assisted mathematical proofs
LaTeX	Writing of scientific documents
Ocaml	Compiler from C to assembly language as a bachelor project.

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