

# Guillaume GEOFFROY

Ph.D. student in mathematics

Last updated: 3 December 2018

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## Personal data

Guillaume Jean-Jacques Geoffroy, born 5 April 1992 in Le Chesnay (Yvelines, France), french nationality.

## Current position

Since 09/2018 **Visiting assistant professor (ATER)** at I2M (Institut de Mathématiques de Marseille).

## Education

Since 09/2018 **Ph.D. in mathematics** (ongoing), Aix-Marseille University. *Classical realizability: new tools and applications*. Advisor: Laurent Regnier. **Defense : March 2019.**

2011 – 2015 **École Normale Supérieure diploma**, École Normale Supérieure, Paris. Major: mathematics, minor: computer science.

2014 Research internship, Universidad de la República, Montevideo (Uruguay). *Classical realizability in set theory : an example with the model of threads*. Advisor: Alexandre Miquel.

2013 – 2014 **Research Master (M2)**: Mathematical Logic and Foundations of Computer Science (LMFI), Paris Diderot University, École Normale Supérieure, Paris. With honours (Mention très bien).

2011 – 2013 University degree (L3 and M1) in mathematics, École Normale Supérieure, Paris.

2009 – 2011 CPGE (2-year program preparing for entry exams to engineering schools), Lycée Louis le Grand, Paris. Admitted to École Normale Supérieure, group MPI, rank 23rd.

2009 High-school diploma (baccalauréat général), scientific option, Lycée Évariste de Parry, Saint Paul (La Réunion, France). With honours (mention très bien, avec les félicitations du jury).

## Research

### Peer-reviewed publications

07/2018 Guillaume Geoffroy. *Classical realizability as a classifier for nondeterminism*. LICS 2018 : Thirty-First Annual ACM / IEEE Symposium on Logic in Computer Science.

### Publications in preparation

Guillaume Geoffroy. *Classical realizability: new tools and applications*. Ph.D. thesis.

Laura Fontanella, Guillaume Geoffroy, Jean-Louis Krivine. *A realizability model of ZFC*.

## Talks

- 09/2018 *Connecting degrees of parallelism and Boolean algebras through classical realizability*, CHoCoLa.
- 07/2018 *Classical realizability as a classifier for nondeterminism*, LICS 2018.
- 06/2018 *Classical realizability and nondeterminism*, Realizability in Marseille.
- 2016 Weekly workshop on classical realizability in the LDP (*Logique de la programmation*) team, I2M. Main speaker.

## Scientific meetings

- 06/2018 *Realizability in Marseille*, co-organizer (with Laura Fontanella).

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## Science popularization

Co-founder and vice-president of Pi Day association ([www.piday.fr](http://www.piday.fr)).

- 2015 – 2017 President of Pi Day association.
- 14 March 2017 Co-author (with Joël Cohen) of the mathematical musical *From Marseille to Vegas* and co-organizer of the Pi Tour : three performances of the musical in Paris (théâtre des Variétés), Lyon (le Transbordeur) and Marseille (le Silo), accompanied by short scientific talks (attendance : 2000). Videos : <http://www.piday.fr/extraits-video-2017/>.
- 14 March 2016 Co-author of the mathematical musical *Les  $\pi$  travaux d'Archimède* and co-organizer of Pi Day in Marseille : one performance of the musical, accompanied by short scientific talks (attendance : 700). The association received the 2016 d'Alembert Award of the French Mathematical Society for this action.

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## Teaching

- Since 09/2018 **Visiting assistant professor (ATER)** at Aix-Marseille University (192h per year). Linear algebra ; methodology ; mathematical reasoning (1st year university – L1) ; C and systems programming (1st year university – L1) ; research initiation workshops (high school).
- 2015 – 2018 **Teaching assistant** (chargé de mission d'enseignement) at Aix-Marseille University (64h per year). Introductory analysis ; algebra and geometry (1st year university – L1) ; C programming (1st and 2nd year university – L1 & L2) ; logic and computability (graduate course – M2) ; research initiation workshops (high school).

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## Languages

French (native), English, Spanish, Italian.

- 2017 – 2018 Organizer of *Café des langues de Luminy*, daily multilingual student language exchange group.