

# Guillaume GEOFFROY

Ph.D. in mathematics

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## Personal data

Guillaume Jean-Jacques Geoffroy, born in 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

2015 - 2019 **Ph.D. in mathematics**, Aix-Marseille University. *Classical realizability: new tools and applications*. Advisor: Laurent Regnier. Defended on 29 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.

Ph.D. thesis

03/2019 Guillaume Geoffroy. *Classical realizability: new tools and applications*. Ph.D. thesis.

## Publications in preparation

Guillaume Geoffroy. *Classical realizability's Gimel 2 as a tool to study*

Laura Fontanella, Guillaume Geoffroy, Jean-Louis Krivine. *Realizability models of ZF with weak forms of choice.*

## 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 Oranizer of *Café des langues de Luminy*, daily multilingual student language exchange group.