Guillaume GEOFFROY
Associate professor, computer science
Last updated: 8th September 2022

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Personal data

Guillaume Jean-Jacques Geoffroy, born in 1992, French nationality.

Current position

Since 09/2021 **Associate professor** (maître de conférences) at IRIF, Université Paris Cité, department of computer science.

Past positions

2019 – 2021 **Post-doc** at the department of computer science and engineering of the university of Bologna (research project DIAPASoN – Differential Program Semantics).

2018 – 2019 **Temporary lecturer and research assistant (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.

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 Parny, Saint Paul (La Réunion, France). With honours (mention très bien, avec les félicitations du jury).

Research

Peer-reviewed publications

08/2022 Guillaume Geoffroy. *A first-order completeness result about characteristic Boolean algebras in classical realizability*. LICS 2022: Thirty-Seventh Annual ACM / IEEE Symposium on Logic in Computer Science.

02/2021	Laura Fontanella, Guillaume Geoffroy. *Preserving cardinals and weak forms of Zorn's lemma in realizability models*.Mathematical Structures in Computer Science.
01/2021	Guillaume Geoffroy, Paolo Pistone. *A partial metric semantics of higher-order types and approximate program transformations*. CSL 2021: 29th EACSL Annual Conference on Computer Science Logic.
07/2018	Guillaume Geoffroy. *Classical realizability as a classifier for nondeterminism*. LICS 2018: Thirty-Third 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. *Extensional denotational semantics of higher-order probabilistic programs, beyond the discrete case*. Under review.

Scientific meetings

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

Science popularisation

Co-founder of Pi Day association (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-organiser 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: https://www.piday.fr/extraits-video-2017/.
14 March 2016	Co-author of the mathematical musical *Les π travaux d'Archimède* and co-organiser 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.

Teaching

Since 2019	**Associate professor** of computer science, (maître de conférences), Université Paris Cité.
2020	Algorithms in Python (30h, lab and TA, bachelor of biology).

2018 – 2019   **Temporary lecturer and research assistant (ATER)** at Aix-Marseille University (192h per year). Linear algebra; methodology; mathematical language and 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, 2/3 math, 1/3 computer science). 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).

Languages

French (native), English, Italian, Spanish.

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