

Gilles VILMART

Senior Lecturer at University of Geneva, Section of Mathematics

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PERSONAL INFORMATIONS

Date of birth: July 29th, 1982. Swiss and French, married, three children. [Google Scholar id.](#)

EDUCATION/QUALIFICATION

- 2014 Professor of Applied Mathematics's qualification (CNU 26), France.
- 2013 Habilitation in Mathematics (HDR), ENS Rennes Cachan Bretagne.
- 2008 Ph.D. in Mathematics under the supervision of Philippe Chartier and Ernst Hairer.
Double doctorate program ("cotutelle"): Univ. Geneva and Univ. Rennes 1.
- 2002–2006 Élève normalien (civil servant student) at Ecole Normale Supérieure de Rennes.
- 2005 Agrégation de mathématiques, France.

EMPLOYMENT

- 01/2018– Maître d'enseignement et de recherche (40%) & Collaborateur scientifique II (60%): permanent research and lecturing position at the University of Geneva, Section of Mathematics.
- 09/2014–12/2017 Collaborateur scientifique II (100%): permanent research and lecturing position at the University of Geneva, Section of Mathematics.
- 09/2013–08/2014 Maître d'enseignement et de recherche suppléant (100%), University of Geneva, Section of Mathematics. On leave from ENS Rennes and INRIA.
- 09/2011–08/2013 École Normale Supérieure de Rennes, dép. de mathématiques: "Agrégé-préparateur". Member of the INRIA research team IPSO. (Functions: research and lecturing).
- 09/2009–08/2011 EPF Lausanne, Post-doc in the group of Assyr Abdulle.
- 09/2006–08/2009 University of Geneva, section of Mathematics: Assistant.

APPROVED RESEARCH PROJECTS

- 2023-2027 SNSF grant as principal investigator, research project including three PhD students (ongoing) and one post-doc. Title: "Geometric and multiscale methods for differential equations" (777'829 CHF).
- 2021-2025 SNSF group grant "Analyse numérique" as principal investigator (with M. Gander, E. Hairer, B. Vandereycken, 162'960 CHF).
- 2020-2024 Strategic partnership grant as principal investigator with Georg Gottwald, University of Sydney (University of Geneva international office, 25'944 CHF).
- 2019-2023 SNSF grant as principal investigator, research project including three PhD students. Title: "Geometric and multiscale methods for differential equations" (640'420 CHF).
- 2016-2019 SNSF grant as principal investigator, research project including two PhD students. Title: "Geometric and multiscale methods for differential equations" (367'500 CHF).
- 2018-2020 SNSF group grant "Analyse numérique" (the PI is M. Gander, with E. Hairer, B. Vandereycken, 112'000 CHF).
- 2017 Sino Swiss Science and Technology Cooperation (SSSTC) Programme (the PI is M. Gander, with S. Sard, B. Vandereycken, P. Wittwer, 39'700 CHF).

RESEARCH SUPERVISION

- Current PhD students at UNIGE: Nicolas Masson (Since Sep. 2020), Eugen Bronasco (Since Feb. 2021), Ramona Häberli (Since Sep. 2021).

- Defended PhD theses at UNIGE: Ibrahim Almuslimani (2020), Guillaume Bertoli (2021), Adrien Laurent (2021, [Prix Henri Fehr 2021](#) for the best PhD thesis of the year of the Section of mathematics), and Laurent is one of three winners of the [SWICCOMAS Prize 2022](#).
- Supervision of Master theses at UNIGE: Patricia Calle (2022), Lucas Grosjean (with P.-A. Cherix), Eugen Bronasco (2021), Christine Plaza, Nicolas Masson (2020, ENS Rennes), Antoine Sandoz (with K. Perron), Marilise Pereira Soares (with P.-A. Cherix), Caroline Mustaklem (2018), Adrien Laurent (ENS Rennes, 2017), Guillaume Bertoli (2017, [Prix Edouard Gans 2017](#) for the best master thesis), Tarek Kaddour (Univ. Geneva, 2016), Fabrice Laroche (2014, with K. Perron).

PUBLICATIONS

See list of publications: 41 articles published or accepted in international research journals.
Preprints available at <http://www.unige.ch/~vilmart/publications.html>

TEACHING ACTIVITIES

- Each year since 2013 at UNIGE: one annual basic course and one semestrial advance course (including “geometric and stiff methods for differential equations”, “numerical methods for stochastic differential equations”, “numerical analysis and functional analysis for PDEs”).
- Since 2019, reform coordinator and member of the committee for the Bachelor/Master of Science in Mathematics, Computer Science, and Numerical Sciences.

MEMBERSHIPS IN PANELS, BOARDS, ETC., AND INDIVIDUAL SCIENTIFIC REVIEWING ACTIVITIES

- Participation in PhD defense panels: Conor McCoid (Univ.Geneva, 2022), Stefano Di Giovacchino (as referee, Univ.L'Aquila, 2022), Marc-Arthur N'Guessan (as referee, Ecole Polytechnique, 2020), Pratik Kumbhar (Univ.Geneva, 2020), Sandie Moody (Univ.Geneva 2019), Fayçal Chaouqui (Univ. Geneva 2018), Timothée Vaillant (as referee, Observatoire de Paris, 2018), Aboubacar Konate (Univ. Paris 6, 2016), Ahmed-Amine Homman (as referee, ENPC, 2016), Julie Sauzeau (Univ. Rennes 1, 2016), Boris Pawilowski (as referee, Univ. Rennes 1, 2015), John MacLean (as referee, Univ. Sydney, 2015), Guillaume Leboucher (Univ. Rennes 1, 2015), Jérôme Michaud (Univ.Geneva, 2015), Erwin Veneros (Univ.Geneva, 2015), Soheil Hajian (Univ.Geneva, 2015).
- Anonymous refereeing for international journals (approximately 20 papers per year), and for public research foundations (NSF USA, ANR France, RGC Hong-Kong, NSC Poland, NKFIH Hungary).

MEMBERSHIPS

[SIAM](#) (Society for industrial and applied mathematics, USA), [SMAI](#) (Society for industrial and applied mathematics, France), [SMS](#) (Swiss mathematical society, Switzerland), [EMS](#) (European Mathematical Society), [Swiccomas](#) (Swiss Community for Computational Methods in Applied Sciences, Switzerland), [CAMAS Consulting platform in Applied Mathematics and Statistics](#) (Co-funder member, Univ. Geneva).

ORGANIZATION OF CONFERENCES, MEETINGS

- Since 2015 Organizer (together with M.J. Gander and B. Vandereycken) of the weekly numerical analysis seminar, Univ. Geneva. <http://www.unige.ch/math/anum>
- 2020 Organizer (together with G. Gottwald) of the Workshop on Multiscale methods for deterministic and stochastic dynamics, Univ. Geneva, Jan. 29-30, 2020. <http://www.unige.ch/multiscale20>
- 2019 Contributed minisymposium organizer on Numerical methods for stochastic (partial) differential equations at [SciCADE 19](#), University of Innsbruck, 22-26 Jul. 2019.
- 2018 Invited minisymposium organizer on stochastic differential equations at [NUMDIFF-15](#), Martin Luther University Halle-Wittenberg, 3-7 Sept. 2018.
- 2017 Organizer (together with M.J. Gander, S. Sardy, B. Vandereycken, P. Wittwer) of the Stepping Stone Symposium on Theoretical and Numerical Analysis of PDEs with Specific Applications, 29-31 Aug. 2017. <http://pde17.unige.ch>

AWARD

- 2013 [Young Researcher First Prize 2013](#) (Mathematics) of the Region Bretagne (France).