

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	Master in Mathematics, Univ. Rennes 1 and Agrégation de mathématiques, France.

EMPLOYMENT

01/2025 –	Maître d'enseignement et de recherche, Senior Lecturer (100%): permanent research and lecturing position at the University of Geneva, Section of Mathematics.
01/2018 – 12/2024	Maître d'enseignement et de recherche (40%) & Collaborateur scientifique II (60%): permanent research and lecturing position at Univ. 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.

RESEARCH GRANTS

2023-2027 (ongoing)	SNSF grant as principal investigator, research project including three PhD students and one post-doc. Title: "Geometric and multiscale methods for differential equations" (778'000 CHF).
2021-2025	SNSF group grant "Analyse numérique" as principal investigator (with M. Gander, E. Hairer, B. Vandereycken, 163'000 CHF).
2020-2024	Strategic partnership grant as principal investigator with Georg Gottwald, University of Sydney (University of Geneva international office, 26'000 CHF).
2019-2023	SNSF grant as PI, research project including three PhD students (640'000 CHF).
2018-2020	SNSF group grant "Analyse numérique" (the PI was M. Gander, with E. Hairer, B. Vandereycken, 112'000 CHF).
2016-2019	SNSF grant as PI, research project including two PhD students (368'000 CHF).

RESEARCH GROUP SUPERVISION AT UNIV. GENEVA

- Current PhD students: Nicolas Masson (since Sep. 2020), Ramona Häberli (since Sep. 2021), Mathieu Benninghoff (since Jan. 2025), Guillaume Louis (since Sept. 2025).
- Current post-docs: Mahdiah Arezoomandan (since Sep. 2024), Ludwig Rahm (since Sep. 2025).
- Defended PhD theses: Ibrahim Almuslimani (2020), now post-doc EPFL, Guillaume Bertoli (2021), now post-doc Columbia Univ., Adrien Laurent (2021), now permanent researcher at INRIA Rennes,

[Prix Henri Fehr 2021](#) for the best PhD thesis of the year of the Section of mathematics, and one of three winners of the [SWICCOMAS Prize 2022](#)), Eugen Bronasco (2025, co-supervised by Dominic Manchon, CNRS), now post-doc Chalmers/Gotterburg, [Prix Henri Fehr 2025](#)).

PUBLICATIONS (all preprints are available at unige.ch/~vilmart/publications)

See list of publications: 42 articles published or accepted in international research journals.

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.

SELECTED PLENARY TALKS (see also the list of talk contributions at unige.ch/~vilmart/talks)

- SciCADE 2024, International Conference on SCientific Computation And Differential Equations, Singapore, Jul. 2024.
- NUMDIFF-16, Conference on the numerical solution of differential and differential-algebraic equations, Martin Luther University Halle-Wittenberg, Sept. 2021.

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

- Scientific committee member for the “New talent prize” at SciCADE 2024, Singapore, Jul. 2024.
- Reviewer for PhD defenses: S. Di Giovacchino (Univ.L’Aquila, 2022), M.-A. N’Guessan (Ecole Polytechnique, 2020), T. Vaillant (Observatoire de Paris, 2018), A.-A. Homman (ENPC, 2016), B. Pawilowski (Univ. Rennes 1, 2015), J. MacLean (Univ. Sydney, 2015).
- Since 2026, associate editor for SIAM Journal on Numerical Analysis (SINUM). Since 2019, member of the editorial board of AIMS Applied Mathematics books.
- Memberships: [SIAM](#) (Society for industrial and applied mathematics), [SMAI](#) (Society for industrial and applied mathematics), [SMS](#) (Swiss mathematical society), [EMS](#) (European Mathematical Society), [Swiccomas](#) (Swiss Community for Computational Methods in Applied Sciences), [CAMAS Consulting platform in Applied Mathematics and Statistics](#) (Co-funder member, Univ. Geneva).
- 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).

RECENT ORGANIZATION OF WORKSHOPS, MEETINGS

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| Since 2015 | Organizer (with M.J. Gander and B. Vandereycken) of the weekly numerical analysis seminar, Section of Mathematics, University of Geneva. unige.ch/math/anum |
| 2027 | Organiser of SDIDE 2027 - 8th Workshop on Stability and Discretization Issues in Differential Equations , Univ. Geneva, Jun. 2027. |
| 2026 | Invited minisymposium organizer on Geometric and multiscale methods for deterministic and stochastic dynamics at SciCADE 26 , Edinburgh, Jul. 2026. |
| 2024 | Organizer (with B. Leimkuhler, R. Tsai, R. Ward) of the Workshop on Constrained Dynamics, Stochastic Numerical Methods and the Modeling of Complex Systems , Oberwolfach, May 2024.
Organizer (with M.J. Gander and B. Vandereycken) of the Swiss Numerical Analysis Day 2024 , Univ. Geneva, Sep. 2024.
Organizer (with G. Gottwald) of the Workshop on Numerical methods for complex high-dimensional systems , Jervis Bay, NSW, Australia, Jul. 2024. |
| 2020 | Organizer (with G. Gottwald) of the Workshop on Multiscale methods for deterministic and stochastic dynamics , Univ. Geneva, Jan. 29-30, 2020. |

AWARD

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| 2013 | Young Researcher First Prize 2013 of the Region Bretagne, France (awarded every 2 years to researchers who received a PhD in Brittany in the last 5 years). |
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