

Stéphane Guerrier

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Education

PhD in Statistics, University of Geneva, Switzerland 2008–2013

MSc & BSc in Environmental Engineering, EPFL, Switzerland 2003–2008

Academic Positions

Associate Professor in Statistics and Data Science, Faculty of Science (School of Pharmaceutical Sciences & Department of Earth Sciences), University of Geneva, Switzerland 2025 – Present

SNSF Professorship in Statistics and Data Science, Faculty of Science (School of Pharmaceutical Sciences) & Geneva School of Economics and Management (Research Center for Statistics), University of Geneva, Switzerland 2019 – 2024

Assistant Professor in Statistics and Data Science (tenure track), Department of Statistics & Institute for Computational and Data Sciences, Pennsylvania State University, PA, USA 2017 – 2018

Assistant Professor in Statistics (tenure track), Department of Statistics, University of Illinois at Urbana-Champaign, IL, USA 2014 – 2017

Visiting Professor, Geodetic Engineering Laboratory, École Polytechnique Fédérale de Lausanne, Switzerland 2016

Visiting Assistant Professor in Statistics, Department of Statistics and Applied Probability, University of California, Santa Barbara, CA, USA 2013 – 2014

Grants

Allocation: 5.67 million CHF (direct); 9.52 million CHF (total)

- **Swiss National Science Foundation** award for the grant entitled: “*Tail-robust Analysis of High-dimensional Nonstationary Time Series*”, joint program with the United States National Science Foundation, with Prof. Yuan Ke (University of Georgia) and Prof. Runze Li (Pennsylvania State University). Total: 524,685 CHF and \$452,257, direct allocation: 524,685 CHF, role: PI, period: 2025–2028. More information: <https://data.snf.ch/grants/grant/233323>.
- **University of Geneva (Rectorate)** award for the MOOC project: “*Voir clair en mathématiques: intuition, approximation et optimisation*”, with Prof. Hugo Duminil-Copin and Dr. Mucyo Karemera (*project lead*); total: 50,000 CHF, period: 2025–2026.
- **Swiss National Science Foundation** award for the grant entitled: “*Inference for Small Area Estimation through Generative Methods: A Focus on Gender Disparities*”, Spirit, with Prof. Innocent Ngaruye (University of Rwanda) and Prof. Joseph Nzabanita (University of Rwanda). Total: 453,270 CHF, direct allocation: 296,470 CHF, role: PI and coordinator, period: 2025–2028. More information: <https://data.snf.ch/grants/grant/232557>.
- **Swiss National Science Foundation** award for the grant entitled: “*Advancing Bioequivalence Assessment for Locally Acting Drugs: Multivariate Adaptive Experimental Designs*”, with Prof. Yogeshvar Kalia (University of Geneva). Total: 1,554,627 CHF, direct allocation: 850,061 CHF, role: PI and coordinator, period: 2025–2028. More information: <https://data.snf.ch/grants/grant/10004089>.
- **Swiss National Science Foundation** award for the grant entitled: “*Data-driven Imaging of Volcanic Plumbing Systems*”, Sinergia, with Prof. Luca Caricchi (University of Geneva) & Dr. Chiara Montagna (Istituto Nazionale di Geofisica e Vulcanologia Sezione di Pisa). Total: 2,313,234 CHF, direct allocation:

948,426 CHF, role: PI, period: 2024–2028. More information: <https://data.snf.ch/grants/grant/216582>.

- **Swiss National Science Foundation** award for the extension of the grant entitled: “*New Challenges for Statistical Methods in Large and Complex Data Settings*”, SNSF professorship (sub-division of Mathematics). Total: 816,508 CHF, role: sole PI, period: 2023–2024. More information: <https://data.snf.ch/grants/grant/211007>.
- **Innosuisse** award for the grant entitled: “*Multi-Sensor Adjustment of Raw LiDAR, Visual and Inertial Measurements in Kinematic Laser Scanning Devices*”, Engineering division, with Dr. Jan Skaloud (EPFL) & Dr. Elmar van der Zwan (Hexagon Technology Center GmbH). Total: 815,265 CHF, direct allocation: 262,690 CHF, role: PI, period: 2022–2024.
- **Innosuisse** award for the grant entitled: “*Stochastic Modelling of Inertial Sensors for Precise GNSS-based Positioning*”, Engineering division, with Dr. Jan Skaloud (EPFL) & Dr. Markus Wenk (Hexagon Technology Center GmbH). Total: 917,280 CHF, direct allocation: 257,355 CHF, role: PI, period: 2019–2022.
- **Swiss National Science Foundation** award for the grant entitled: “*New Challenges for Statistical Methods in Large and Complex Data Settings*”, SNSF professorship (sub-division of Mathematics). Total: 1,662,752 CHF, role: sole PI, period: 2019–2022. More information: <https://data.snf.ch/grants/grant/176843>.

Submitted Articles

1. Xiao, D., Xu, H., Ahn, J., **Guerrier, S.**, Li, R. & Ke, Y., “*Multiple Autocovariance Change-points Problems in High-dimensional Time Series*”, 2026.
2. Xu, H., Luo, D., **Guerrier, S.**, Li, R. & Ke, Y., “*Non-Asymptotic Analysis of Median-of-Means Estimations for High-Dimensional Time Series*”, 2026.
3. Zhang, Y., **Guerrier, S.** & Li, R., “*Accurate Inference for Penalized Logistic Regression*”, 2024. Available on arXiv: <https://arxiv.org/abs/2410.20045>.
4. Zhang, Y., Ma, Y., He, X. & **Guerrier, S.**, “*Bias Correction for Semiparametric Regression Models with Diverging Dimensions and Dispersion*”, 2026. Available on arXiv: <https://arxiv.org/abs/2605.08656>.
5. Voirol, L., Xu, H., Zhang, Y., Insolia, L., Molinari, R. & **Guerrier, S.**, “*Towards Open Science: Monitoring Crustal Deformations in North America*”, 2024. Available on arXiv: <https://arxiv.org/abs/2409.05160>.
6. Orso, S., Karemera, M., Victoria-Feser, M.-P. & **Guerrier, S.**, “*An Accurate Percentile Method for Parametric Inference Based on Asymptotically Biased Estimators*”, 2024. Available on arXiv: <https://arxiv.org/abs/2405.05403>.
7. Pareek, S., Insolia, L., Molinari, R. & **Guerrier, S.**, “*Equivalence Testing Under Privacy Constraints*”, 2026. Available on arXiv: <https://arxiv.org/abs/2604.06499>.
8. Insolia, L., Ma, Y., Boulaguiem, Y. & **Guerrier, S.**, “*Bioequivalence Assessment for Locally Acting Drugs: A Framework for Feasible and Efficient Evaluation*”, 2025. Available on arXiv: <https://arxiv.org/abs/2507.22756>.
9. Coqueret, G., Zhang, Y., Pérignon, C., Chiaramonte, F. & **Guerrier, S.**, “*Global p-Values in Multi-Design Studies*”, 2025. Available on arXiv: <https://arxiv.org/abs/2507.03815>.
10. Zhang, Y., Ma, Y., Orso, S., Karemera, M., Victoria-Feser, M.-P. & **Guerrier, S.**, “*Just Identified Indirect Inference Estimator: Accurate Inference through Bias Correction*”, 2022. Available on arXiv: <https://arxiv.org/abs/2204.07907>.
11. Wu, J., **Guerrier, S.**, Gou, S., Kalia, Y. N. & Insolia, L., “*Bridging the Gap Between Experimental Burden and Statistical Power for Quantiles Equivalence Testing*”, 2025. Available on arXiv: <https://arxiv.org/abs/2510.17514>.
12. Gou, S., Insolia, L., Wu, J., Moustie, A., **Guerrier, S.** & Kalia, Y. N., “*Cutaneous Biodistribution of Topically Applied Active Ingredients: Evaluation of Intra- and Inter-Laboratory Reproducibility*”, 2026.

Publications

60. Rao, S. V., Young, L., Cheeseman, D., Flynn, S., Krebs, N., Couturier, D.-L., Mack, S., Brais, R., Temple, J., Smith, A., Papachristou, E., Pelicano, C., Chilamakuri, C. S. R., Herka, K., Baba, H., Farah, L., Cheung, P. F., Siveke, J., **Guerrier, S.**, Insolia, L., Gill, M., Goode, E. A., Kupczak, S., Cheng, Y., Borsari, G., Jodrell, D., D'Santos, C., Russell, A., Grünwald, B. T., Serrao, E., Chernukhin, I. & Carroll, J. S., “*Transcription Factor Switching Drives Subtype-Specific Pancreatic Cancer*”, *Nature Genetics*, 57, 3016–3026, 2025.
59. Brun, A., Kolecki, J., Xiao, M., Insolia, L., van der Zwan, E., **Guerrier, S.** & Skaloud, J., “*Generalization of Point-to-Point Matching for Rigorous Optimization in Kinematic Laser Scanning*”, *ISPRS Journal of Photogrammetry and Remote Sensing*, 229, 107–121, 2025.
58. Boulaguiem, Y., Insolia, L., Victoria-Feser, M.-P., Couturier, D.-L. & **Guerrier, S.**, “*Multivariate Adjustments for Average Equivalence Testing*”, *Statistics in Medicine*, 44(15-17), 1–19, 2025.
57. del Río-Sancho, S., Christen-Zaech, S., Alvarez Martinez, D., Pünchera, J., **Guerrier, S.** & Laubach, H. J., “*Line-field confocal optical coherence tomography coupled with artificial intelligence algorithms as a tool to investigate wound healing: A prospective, randomized, single-blinded pilot study*”, *Journal of the European Academy of Dermatology and Venereology*, 39(8), 1481–1488, 2025.
56. Balbinot, F., Voirol, L., **Guerrier, S.**, Karemera, M., Feser, R., Baroffio, A. & Gerbase, M., “*Unveiling Empathy Determinants Across Borders: a Comparative Analysis of Medical Students from Two Geo-Sociocultural Backgrounds*”, *BMC Medical Education*, 25(1), 554, 1–11, 2025.
55. Brillatz, T., Marquet, F., Petrovic, M., Queiroz, E. F., **Guerrier, S.**, Allémann, E., Caubet, J.-C. & Graham, F., “*Evaluation of Peanut Tolerance in Sensitized Mice Through Intradermal Allergen Delivery with Adjuvants*”, *International Journal of Pharmaceutics*, 678, 125678, 2025.
54. **Guerrier, S.**, Kuzmics, C. & Victoria-Feser, M.-P., “*Assessing COVID-19 Prevalence in Austria with Infection Surveys and Case Count Data as Auxiliary Information*”, *Journal of the American Statistical Association*, 119(547), 1722–1735, 2024.
★ *JASA 2024 Reproducibility Award*
53. Karemera, M., Voirol, L., Cucci, D. A., Chu, W., Molinari, R. & **Guerrier, S.**, “*Accounting for Vibration Noise in Stochastic Measurement Errors*”, *IEEE Transactions on Signal Processing*, 72, 2117–2129, 2024.
52. Insolia, L., **Guerrier, S.**, Montagna, C., Victoria-Feser, M.-P. & Caricchi, L., “*Estimation and Uncertainty Quantification of Magma Interaction Times using Statistical Emulation*”, *Volcanica*, 7(2), 525–539, 2024.
51. Boulaguiem, Y., Quartier, J., Lapteva, M., Kalia, Y., Victoria-Feser, M.-P., **Guerrier, S.** & Couturier, D.-L., “*Finite Sample Adjustments for Average Equivalence Testing*”, *Statistics in Medicine*, 43(5), 833–854, 2024.
50. Miglioli, C., Canini, M., Vignotto, E., Pecco, N., Pozzoni, M., Victoria-Feser, M.-P., **Guerrier, S.**, Candiani, M., Falini, A., Baldoli, C., Cavoletto, P. & Della Rosa, P., “*The Maternal-fetal Neurodevelopmental Groundings of Preterm Birth Risk*”, *Heliyon*, 10(7), 1–13, 2024.
49. Santos, B., Boulaguiem, Y., Baysson, H., Pullen, N., Guessous, I., **Guerrier, S.**, Stringhini, S. & Schneider, M., “*Impact of the Covid-19 Pandemic on Medication Adherence and Access to Care in Patients with Long-term Diseases: A Cross Sectional Online Survey*”, *COVID*, 4(2), 191–207, 2024.
48. Del Río-Sancho, S., Alvarez Martinez, D., Pünchera, J., **Guerrier, S.** & Laubach, H. J., “*Dermobile: A Cost-Effective Portable Device for Erythema Evaluation*”, *Skin Research and Technology*, 30(4), 1–2, 2024.
47. Bakalli, G., **Guerrier, S.** & Scaillet, O., “*A Penalized Two-Pass Regression to Predict Stock Returns with Time-Varying Risk Premia*”, *Journal of Econometrics*, 237(2C), 1–27, 2023.
46. Bakalli, G., Cucci, D. A., Radi, A., El-Sheimy, N., Molinari, R., Scaillet, O. & **Guerrier, S.**, “*Multi-Signal Approaches for Repeated Sampling Schemes in Inertial Sensor Calibration*”, *IEEE Transactions on Signal Processing*, 71, 1103–1114, 2023.

45. Cucci, D. A., Voirol, L., Kermarrec, G., Montillet, J.-P. & **Guerrier, S.**, “*The Generalized Method of Wavelet Moments with Exogenous Inputs: a Fast Approach for the Analysis of GNSS Position Time Series*”, *Journal of Geodesy*, 97(14), 1–28, 2023.
44. Huber, R., Marcourt, L., Héritier, M., Luscher, A., Guebey, L., Schnee, S., Michellod, E., **Guerrier, S.**, Wolfender, J. L., Scapozza, L. & Köhler, T., “*Generation of Potent Antibacterial Compounds through Enzymatic and Chemical Modifications of the Trans- δ -Viniferin Scaffold*”, *Scientific Reports*, 13(1), 15986, 2023.
43. Wehrli, L., Galdadas, I., Voirol, L., Smiesko, M., Cambet, Y., Jaquet, V., **Guerrier, S.**, Gervasio, F., Nef, S. & Rahban, R., “*The Action of Physiological and Synthetic Steroids on the Calcium Channel CatSper in Human Sperm*”, *Frontiers in Cell and Developmental Biology*, 11, 1–18, 2023.
42. Ramzy, G., Norkin, M., Koessler, T., Voirol, L., Tihy, M., Hany, D., McKee, T., Ris, F., Buchs, N., Docquier, M., Toso, C., Rubbia-Brandt, L., Bakalli, G., **Guerrier, S.**, Huelsken, J. & Nowak-Sliwinska, P., “*Platform Combining Statistical Modeling and Patient-Derived Organoids to Facilitate Personalized Treatment of Colorectal Carcinoma*”, *Journal of Experimental & Clinical Cancer Research*, 42(79), 1–17, 2023.
41. Quartier, J., Lapteva, M., Boulaguiem, Y., **Guerrier, S.** & Kalia, Y., “*Influence of Molecular Structure and Physicochemical Properties of Immunosuppressive Drugs on Micelle Formulation Characteristics and Cutaneous Delivery*”, *Pharmaceutics*, 15(4), 1–22, 2023.
40. Pfarrwaller, E., Voirol, L., Karemera, M., **Guerrier, S.** & Baroffio, A., “*Dynamics of Career Intentions in a Medical Student Cohort: A Four-year Longitudinal Study*”, *BMC Medical Education*, 23(131), 1–11, 2023.
39. Cucci, D. A., Voirol, L., Khaghani, M. & **Guerrier, S.**, “*On Performance Evaluation of Inertial Navigation Systems: the Case of Stochastic Calibration*”, *IEEE Transactions on Instrumentation & Measurement*, 72, 1–17, 2023.
38. **Guerrier, S.**, Molinari, R., Victoria-Feser, M.-P. & Xu, H., “*Robust Two-Step Wavelet-Based Inference for Time Series Models*”, *Journal of the American Statistical Association (Theory & Methods)*, 117(540), 1996–2013, 2022.
37. Zhang, Y., Cucci, D. A., Molinari, R. & **Guerrier, S.**, “*Scale-wise Variance Minimization for Optimal Virtual Signals: An Approach for Redundant Gyroscopes*”, *IEEE Transactions on Signal Processing*, 70, 5320–5333, 2022.
36. Miglioli, C., Bakalli, G., **Guerrier, S.**, Orso, S., Molinari, R., Karemera, M. & Mili, N., “*Evidence of Antagonistic Predictive Effects of miRNAs in Breast Cancer Cohorts through Data-driven Networks*”, *Scientific Reports*, 12(5166), 1–16, 2022.
35. Abouir, K., Gosselin, P., **Guerrier, S.**, Daali, Y., Desmeules, J., Groscurin, O., Reny, J.-L., Samer, C., Calmy, A. & Ing Lorenzini, K.-R., “*Dexamethasone Exposure in Normal-Weight and Obese Hospitalized COVID-19 Patients: an Observational Exploratory Trial*”, *Clinical and Translational Science*, 15(7), 1796–1804, 2022.
34. Kermarrec, G., Lösler, M., **Guerrier, S.** & Schön, S., “*The Variance Inflation Factor to Account for Correlations in Likelihood Ratio Tests: Deformation Analysis with Terrestrial Laser Scanners*”, *Journal of Geodesy*, 96(11), 1–18, 2022.
33. Pfarrwaller, E., Voirol, L., Piumatti, G., Karemera, M., Sommer, J., Gerbase, M., **Guerrier, S.** & Baroffio, A., “*Students’ Motives to Become Doctors are Associated with their Intention to Practice Primary Care: A Longitudinal Study*”, *BMC Medical Education*, 22(1), 30, 2022.
32. Heerah, S., Molinari, R., **Guerrier, S.** & Marshall-Colon, A., “*Granger-Causal Testing for Irregularly Sampled Time Series with Application to Nitrogen Signaling in Arabidopsis*”, *Bioinformatics*, 37(16), 2450–2460, 2021.
31. Quartier, J., Lapteva, M., Boulaguiem, Y., **Guerrier, S.** & Kalia, Y., “*Polymeric Micelle Formulations for the Cutaneous Delivery of Sirolimus: A New Approach for the Treatment of Facial Angiofibromas in Tuberous Sclerosis Complex*”, *International Journal of Pharmaceutics*, 604, 1–13, 2021.

30. Jammalamadaka, S. R., **Guerrier, S.** & Mangalam, V., “*Exact Distributions and Performance of some Two-sample Nonparametric Tests for Circular Data*”, *Sankhya B*, 83, 140–166, 2021.
29. Wang, Y., Gardoni, P., Murphy, C. & **Guerrier, S.**, “*Empirical Predictive Modeling Approach to Quantifying Social Vulnerability to Natural Hazards*”, *Annals of the American Association of Geographers*, 111(5), 1559–1583, 2021.
28. Parisi, N., Janier-Dubry, A., Ponzetto, E., Pavlopoulos, C., Bakalli, G., Molinari, R., **Guerrier, S.** & Mili, N., “*Non Applicability of Validated Predictive Models for Intensive Care Admission and Death of COVID-19 Patients in a Secondary Care Hospital in Belgium*”, *Journal of Emergency and Critical Care Medicine*, 5(22), 1–13, 2021.
27. **Guerrier, S.**, Jurado, J., Khaghani, M., Bakalli, G., Karemera, M., Molinari, R., Orso, S., Raquet, J., Schubert Kabban, C., Skaloud, J., Xu, H. & Zhang, Y., “*Wavelet-Based Moment-Matching Techniques for Inertial Sensor Calibration*”, *IEEE Transactions on Instrumentation & Measurement*, 69(10), 7542–7551, 2020.
26. Khamma, T., Zhang, Y., **Guerrier, S.** & Boubekri, M., “*Generalized Additive Models: An Efficient Method for Short-Term Energy Prediction in Office Buildings*”, *Energy*, 213, 118834, 2020.
25. Wang, Y., Gardoni, P., Murphy, C. & **Guerrier, S.**, “*Worldwide Predictions of Earthquake Casualty Rates with Seismic Intensity Measure and Socioeconomic Data: A Fragility-Based Formulation*”, *Natural Hazards Review*, 21(2), 1–40, 2020.
24. LaChance, J., Radhakrishnan, S., Madiwale, G., **Guerrier, S.** & Vanamala, J., “*Targeting Hallmarks of Cancer with a Food System-based Approach*”, *Nutrition*, 69 (110563), 1–23, 2020.
23. **Guerrier, S.**, Dupuis, E., Ma, Y. & Victoria-Feser, M.-P., “*Simulation based Bias Correction Methods for Complex Models*”, *Journal of the American Statistical Association (Theory & Methods)*, 114(525), 146–157, 2019.
22. Xu, H., **Guerrier, S.**, Molinari, R. & Karemera, M., “*Multivariate Signal Modelling with Applications to Inertial Sensor Calibration*”, *IEEE Transactions on Signal Processing*, 67(19), 5143–5152, 2019.
21. Radi, A., Bakalli, G., **Guerrier, S.**, El-Sheimy, N., Sesay, A. & Molinari, R., “*A Multi-Signal Wavelet Variance-based Framework for Inertial Sensor Stochastic Error Modeling*”, *IEEE Transactions on Instrumentation & Measurement*, 68(12), 4924–4936, 2019.
20. Wang, Y., Gardoni, P., Murphy, C. & **Guerrier, S.**, “*Predicting Fatality Rates Due to Earthquakes Accounting for Community Vulnerability*”, *Earthquake Spectra*, 35(2), 513–536, 2019.
19. **Guerrier, S.**, Orso, S. & Victoria-Feser, M.-P., “*Parametric Inference for Index Functionals*”, *Econometrics*, invited paper for the special issue *Econometrics and Income Inequality*, 6(2), 22, 2018.
18. Clausen, P., Skaloud, J., Molinari, R., Lee, J. & **Guerrier, S.**, “*Use of a New Online Calibration Platform with Applications to Inertial Sensors*”, *IEEE Aerospace and Electronic Systems Magazine*, 33(8), 30–36, 2018.
17. Branca, M., Orso, S., Molinari, R., Xu, H., **Guerrier, S.**, Zhang, Y. & Mili, N., “*Is Non-Metastatic Cutaneous Melanoma Predictable through Genomic Biomarkers?*”, *Melanoma Research*, 28(1), 21–29, 2018.
16. Balamuta, J., **Guerrier, S.**, Molinari, R. & Yang, W., “*A Computationally Efficient Framework for Automatic Inertial Sensor Calibration*”, *IEEE Sensors Journal*, 18(4), 1636–1646, 2018.
15. Xu, H., **Guerrier, S.**, Molinari, R. & Zhang, Y., “*A Study of the Allan Variance for Constant-Mean Non-Stationary Processes*”, *IEEE Signal Processing Letters*, 24(8), 1257–1260, 2017.
14. **Guerrier, S.**, Mili, N., Molinari, R., Orso, S., Avella-Medina, M. & Ma, Y., “*A Paradigmatic Regression Algorithm for Gene Selection Problems*”, *Frontiers in Genetics, Statistical Genetics and Methodology*, 7(97), 1–11, 2016.
13. **Guerrier, S.**, Molinari, R. & Stebler, Y., “*Theoretical Limitations of Allan Variance-based Regression for Time Series Model Estimation*”, *IEEE Signal Processing Letters*, 23(5), 597–601, 2016.

12. **Guerrier, S.**, Molinari, R. & Stebler, Y., “*Wavelet-based Improvements for Inertial Sensor Error Modelling*”, IEEE Transactions on Instrumentation and Measurement, 65(12), 2693–2700, 2016.
11. **Guerrier, S.**, Molinari, R. & Balamuta, J., “*Discussion on Maximum Likelihood-based Methods for Inertial Sensor Calibration*”, IEEE Sensors Journal, 16(14), 5522–5523, 2016.
10. Duncan, I. & **Guerrier, S.**, “*Member Plan Choice and Migration in Response to Changes in Member Premiums after Massachusetts Health Insurance Reform*”, North American Actuarial Journal, 1–16, 2016.
9. Kerr, D., Yadollahi, M., Mendoza, H., Chen, X., Dong, S., **Guerrier, S.**, Laan, R. & Duncan, I., “*Use of a Publicly Available Database to Determine the Impact of Diabetes on Length of Hospital Stay for Elective Orthopedic Procedures in California*”, Population Health Management, 1–17, 2016.
8. **Guerrier, S.**, Molinari, R. & Skaloud, J., “*Automatic Identification and Calibration of Stochastic Parameters in Inertial Sensors*”, Journal of the Institute of Navigation, 62(4), 265–272, 2015.
7. Stebler, Y., **Guerrier, S.** & Skaloud, J., “*An Approach for Observing and Modeling Errors in MEMS-based Inertial Sensors under Vehicle Dynamics*”, IEEE Transactions on Instrumentation and Measurement, 64(11), 2926–2936, 2015.
6. Stebler, Y., **Guerrier, S.**, Skaloud, J. & Victoria-Feser, M.-P., “*The Generalized Method of Wavelet Moments for Inertial Navigation Filter Design*”, IEEE Transactions on Aerospace and Electronic Systems, 50(3), 2269–2283, 2014.
5. **Guerrier, S.**, Molinari, R. & Victoria-Feser, M.-P., “*Estimation of Time Series Models via Robust Wavelet Variance*”, Austrian Journal of Statistics, 43(3-4), 267–277, 2014.
4. **Guerrier, S.**, Stebler, Y., Skaloud, J. & Victoria-Feser, M.-P., “*Wavelet-Variance-Based Estimation for Composite Stochastic Processes*”, Journal of the American Statistical Association (Theory & Methods), 108(503), 1021–1030, 2013.
3. **Guerrier, S.**, Skaloud, J., Waegli, A. & Victoria-Feser, M.-P., “*Fault Detection and Isolation in Multiple MEMS-IMUs Configurations*”, IEEE Transactions on Aerospace and Electronic Systems, 48(3), 2015–2031, 2012.
2. Stebler, Y., **Guerrier, S.**, Skaloud, J. & Victoria-Feser, M.-P., “*Constrained EM Algorithm for Stochastic Inertial Error Modelling: Study of Feasibility*”, Measurement Science and Technology, 22(8), 121–135, 2011.
1. Waegli, A., Skaloud, J., **Guerrier, S.**, Parés, M. & Colomina, I., “*Noise Reduction and Estimation in Multiple Micro-Electro-Mechanical Inertial Systems*”, Measurement Science and Technology, 21(6), 231–242, 2010.

CONFERENCE PROCEEDINGS

22. Minaretzis, C., Luo, Y., **Guerrier, S.**, El-Sheimy, N. & Sideris, M., “*Robust Wavelet Variance-Based Stochastic Analysis of Instantaneous Code Phase-Based Oscillator Instability*”, in Proceedings of the ION GNSS+ 2023, Denver, CO, USA, 2023.
21. Minaretzis, C., Cucci, D. A., **Guerrier, S.**, Radi, A., El-Sheimy, N. & Sideris, M., “*Robust Wavelet Variance-based Approaches for the Stochastic Modeling of Inertial Sensor Measurement Noise*”, The Institute of Navigation, International Technical Meeting, Long Beach, CA, USA, 2022.
20. Voirol, L., **Guerrier, S.**, Zhang, Y., Karemera, M. & Radi, A., “*Optimally Weighted Wavelet Variance-based Estimation for Inertial Sensor Stochastic Calibration*”, in 12th International Conference on Electrical Engineering, Cairo, Egypt, 2020.
19. Khaghani, M., **Guerrier, S.**, Skaloud, J. & Zhang, Y., “*Optimal Stochastic Sensor Error Modeling based on Actual Impact on Quality of GNSS-INS Integrated Navigation*”, in Proceedings of the ION GNSS 2019, Miami, FL, USA, 2019.
18. Contento, A., Xu, H., Gardoni, P. & **Guerrier, S.**, “*Modeling the Climate Change Effects on Storm Surge with Metamodels*”, 6th International Symposium on Life-Cycle Civil Engineering, IALCCE, 2018.

17. Clausen, P., Orso, S., Skaloud, J. & **Guerrier, S.**, “*Construction of Dynamically-Dependent Stochastic Error Models*”, in Proceedings of IEEE/ION PLANS 2018, Monterey, CA, USA, 2018.
16. Zhang, Y., Xu, H., Radi, A., Molinari, R., **Guerrier, S.**, Karemera, M. & El-Sheimy, N., “*An Optimal Virtual Inertial Sensor Framework using Wavelet Cross Covariance*”, in Proceedings of IEEE/ION PLANS 2018, Monterey, CA, USA, 2018.
15. Bakalli, G., Radi, A., Molinari, R., Zhang, Y., **Guerrier, S.** & Nassar, S., “*A Two-Step Computationally Efficient Procedure for IMU Classification and Calibration*”, in Proceedings of IEEE/ION PLANS 2018, Monterey, CA, USA, 2018.
14. Radi, A., Nassar, S., Molinari, R., **Guerrier, S.** & El-Sheimy, N., “*Improved Stochastic Modelling of Low-Cost GNSS Receivers Positioning Errors*”, in Proceedings of IEEE/ION PLANS 2018, Monterey, CA, USA, 2018.
13. Clausen, P., Skaloud, J., Molinari, R., Balamuta, J. & **Guerrier, S.**, “*An Overview of a New Sensor Calibration Platform*”, in Proceeding of the 4th IEEE International Workshop on Metrology for Aerospace, Padova, Italy, 2017.
12. Radi, A., Bakalli, G., **Guerrier, S.**, El-Sheimy, N. & Molinari, R., “*An Automatic Calibration Approach for the Stochastic Parameters of Inertial Sensors*”, in Proceedings of the ION GNSS 2017, Portland, OR, USA, 2017.
11. Bakalli, G., Radi, A., Molinari, R., El-Sheimy, N. & **Guerrier, S.**, “*A Computational Multivariate-based Technique for Inertial Sensor Calibration*”, in Proceedings of the ION GNSS 2017, Portland, OR, USA, 2017.
10. Molinari, R., Balamuta, J., **Guerrier, S.** & Skaloud, J., “*An Inertial Sensor Calibration Platform to Estimate and Select Error Models*”, in Proceedings of the International Association of Institutes of Navigation, Prague, Czech Republic, 2015.
9. Balamuta, J., Molinari, R., **Guerrier, S.** & Skaloud, J., “*A Computationally Efficient Platform for Inertial Sensor Calibration*”, in Proceedings of the ION GNSS 2015, Tampa, FL, USA, 2015.
8. Molinari, R., Balamuta, J., **Guerrier, S.** & Skaloud, J., “*Automatic and Computationally Efficient Method For Model Selection In Inertial Sensor Calibration*”, in Proceedings of the ION GNSS 2015, Tampa, FL, USA, 2015.
7. Stebler, Y., **Guerrier, S.**, Skaloud, J., Molinari, R. & Victoria-Feser, M.-P., “*Study of MEMS-based Inertial Sensors Operating in Dynamic Conditions*”, in Proceedings of IEEE/ION PLANS 2014, Monterey, CA, USA, 2014.
6. **Guerrier, S.**, Molinari, R., Skaloud, J. & Victoria-Feser, M.-P., “*An Algorithm for Automatic Inertial Sensors Calibration*”, in Proceedings of the ION GNSS 2013, Nashville, TN, USA, 2013.
5. Stebler, Y., **Guerrier, S.**, Skaloud, J. & Victoria-Feser, M.-P., “*A Framework for Inertial Sensor Calibration Using Complex Stochastic Error Models*”, in Proceedings of IEEE/ION PLANS 2012, Myrtle Beach, SC, USA, 2012.
4. Stebler, Y., **Guerrier, S.**, Skaloud, J. & Victoria-Feser, M.-P., “*Improving Modeling of MEMS-IMUs Operating in GNSS-denied Conditions*”, in Proceedings of the ION GNSS 2011, Portland, OR, USA, 2011.
3. **Guerrier, S.**, Skaloud, J., Waegli, A. & Victoria-Feser, M.-P., “*Robust FDI in Redundant MEMS-IMUs Systems*”, EuroCow, the Calibration and Orientation Workshop (European Spatial Data Research), Barcelona, Spain, 2010.
2. **Guerrier, S.**, “*Improving Accuracy with Multiple Sensors: Study of Redundant MEMS-IMU/GPS Configurations*”, in Proceedings of the ION GNSS 2009, Savannah, GA, USA, 2009.
1. Waegli, A., **Guerrier, S.** & Skaloud, J., “*Redundant MEMS-IMU integrated with GPS for Performance Assessment in Sports*”, in Proceedings of IEEE/ION PLANS 2008, Monterey, CA, USA, 2008.

Bibliometric Indicators

Citations: 1707, h-index: 25, i10-index: 46 (from Google Scholar, April 2026)

Research Group

- Federico Grazi, PhD Student
- Luca Insolia, Postdoctoral Researcher
- Mucyo Karemera, Senior Research Associate
- Tania Loureiro Ferreira, PhD Student
- Samuel Orso, Senior Research Associate
- Filippo Salmaso, PhD Student
- Lionel Voirol, PhD Student

Former PhD Students

- **Jun Wu:** PhD in Statistics, University of Geneva, graduated in 2026. Thesis: “*Contributions to Quantile Equivalence Testing*”, co-advisor with Prof. Maria-Pia Victoria-Feser. Now Lecturer, Guizhou University of Finance and Economics, China.
- **Younes Boulaguiem:** PhD in Statistics, University of Geneva, graduated in 2025. Thesis: “*Contributions to Equivalence Testing*”, co-advisor with Prof. Maria-Pia Victoria-Feser. Now Postdoctoral Researcher, University of Geneva, Switzerland.
- **Cesare Miglioli:** PhD in Statistics, University of Geneva, graduated in 2024. Thesis: “*Contributions to the Statistical Analysis of Networks and Graphs*”, co-advisor with Prof. Maria-Pia Victoria-Feser. Now Postdoctoral Researcher, University of Pittsburgh (Department of Statistics), USA.
- **Haotian Xu:** PhD in Statistics, University of Geneva, graduated in 2021. Thesis: “*Contributions to Time Series Analysis*”, co-advisor with Prof. Maria-Pia Victoria-Feser. Now Assistant Professor (tenure track), Auburn University (Department of Mathematics and Statistics), USA.
- **Gaetan Bakalli:** PhD in Statistics, University of Geneva, graduated in 2021. Thesis: “*Domain-Tailored Approaches to Statistical Learning*”, co-advisor with Prof. Olivier Scaillet. Now Assistant Professor (tenure track), EM Lyon Business School (Quantitative Finance & Economics), France.
- **Samuel Orso:** PhD in Statistics, University of Geneva, graduated in 2019. Thesis: “*Contributions to Simulation-based Estimation Methods*”, co-advisor with Prof. Maria-Pia Victoria-Feser. Now Senior Research Associate, University of Geneva (Faculty of Science), Switzerland.
- **Roberto Molinari:** PhD in Statistics, University of Geneva, graduated in 2016. Thesis: “*Robust Inference for Random Fields and Latent Models*”, co-advisor with Prof. Maria-Pia Victoria-Feser. Now Associate Professor, Auburn University (Department of Mathematics and Statistics), USA.
- **Elise Dupuis-Lozeron:** PhD in Statistics, University of Geneva, graduated in 2015. Thesis: “*Simulation Based Bias Correction Methods for Complex Problems*”, co-advisor with Prof. Maria-Pia Victoria-Feser. Now Senior Statistician, Philip Morris International, Switzerland.

Former Postdocs

- **Dr. Davide A. Cucci** (2020–2022): Now Senior R&D Engineer, Pix4D, Switzerland.
- **Dr. Mehran Khaghani** (2019–2020): Now Sensor Fusion Algorithm Engineer, Leica Geosystems, Switzerland.

Statistical Software (Selected)

- “**gmwmx**” **R package:** implements the Generalized Method of Wavelet Moments with eXogenous inputs estimators (GMWMX) introduced in Cucci et al. (2023, J Geodesy) and provides functions to estimate time series models that can be expressed as linear models with correlated residuals. Available on CRAN.
- “**simts**” **R package:** contains various tools for time series analysis. This R package provides a series of tools to simulate, plot, estimate and forecast different time series models. It is originally conceived as a support to the ebook “*Applied Time Series Analysis with R*”. Available on CRAN.
- “**wv**” **R package:** implements the methods proposed in Guerrier et al. (2022, JASA) to perform robust wavelet variance analysis. Available on CRAN.

- **“avar” R package:** implements the Allan variance and Allan variance linear regression estimator for time series models (see Guerrier et al. (2016, IEEE Signal Proc Let) and Xu et al. (2017, IEEE Signal Proc Let)). Available on CRAN.
- **“gmwm” R package:** provides a computationally efficient implementation of the estimators introduced in Guerrier et al. (2013, JASA) and Stebler et al. (2014, IEEE T Aero Elec Sys). Available on GitHub.
- **“gmwmX2” R package:** next-generation GMWM-X for linear models with correlated residuals and missing data. Available on CRAN.
- **“navigation” R package:** tools to evaluate inertial navigation performance via Monte Carlo simulation and Kalman filtering. Available on CRAN.
- **“irg” R package:** implements the methods proposed in Heerah et al. (2021, Bioinformatics) to perform Granger-causal analysis of irregularly sampled signals. Available on GitHub.
- **“pempi” R package:** implements the conditional prevalence estimation approach proposed in Guerrier et al. (2024, JASA). Available on CRAN.
- **“cTOST” R package:** implements the equivalence testing methods proposed in Boulaguiem et al. (2024, Stat Med). Available on GitHub.

Teaching (Summary by Year) _____

- **2024–2025:** *“Introduction à la Statistique”* (Spring, undergraduate class, University of Geneva), *“Modelling and Data Analysis for Pharmaceutical Sciences”* (Spring, graduate class, University of Geneva), *“Inference for Large-Scale Time Series with Application to Sensor Fusion”* (Spring, graduate class, École Polytechnique Fédérale de Lausanne).
- **2023–2024:** *“Comprendre le Numérique”* (Fall, undergraduate class), *“Modelling and Data Analysis for Pharmaceutical Sciences”* (Spring, graduate class). All courses were given at the University of Geneva.
- **2022–2023:** *“Comprendre le Numérique”* (Fall, undergraduate class), *“Modelling and Data Analysis for Pharmaceutical Sciences”* (Spring, graduate class), *“Introduction to Data Science”* (Spring, undergraduate class). All courses were given at the University of Geneva.
- **2021–2022:** *“Comprendre le Numérique”* (Fall, undergraduate class), *“Modelling and Data Analysis for Pharmaceutical Sciences”* (Spring, graduate class), *“Introduction to Data Science”* (Spring, undergraduate class). All courses were given at the University of Geneva.
- **2020–2021:** *“Comprendre le Numérique”* (Fall, undergraduate class, University of Geneva), *“Introduction to Statistics”* (Winter, graduate class, Shanghai International Studies University), *“Data Visualization”* (Spring, graduate class, University of Geneva), *“Introduction to Programming”* (Spring, graduate class, University of Geneva), *“Modelling and Data Analysis for Pharmaceutical Sciences”* (Spring, graduate class, University of Geneva), *“Introduction to Data Science”* (Spring, undergraduate class, University of Geneva).
- **2019–2020:** *“Inference for Large-Scale Time Series with Application to Sensor Fusion”* (Winter, graduate class, École Polytechnique Fédérale de Lausanne), *“Introduction to Data Science”* (Spring, undergraduate class, University of Geneva).
- **2018–2019:** *“Applied Time Series Analysis – STAT 463”* (Fall, undergraduate class, Pennsylvania State University), *“Introduction to Data Science”* (Spring, undergraduate class, University of Geneva), *“Introduction to Data Science”* (Summer, Geneva Summer School, University of Geneva).
- **2017–2018:** *“Statistical Programming Methods – STAT 297”* (Fall, undergraduate class, Pennsylvania State University).
- **2016–2017:** *“Time Series Analysis – STAT 429”* (Fall, graduate class), *“Time Series Forecasting – STAT 578”* (Fall, graduate class), *“Statistical Programming Methods – STAT 385”* (Spring, undergraduate class). All courses were given at the University of Illinois at Urbana-Champaign.
- **2015–2016:** *“Time Series Analysis – STAT 429”* (Fall, graduate class), *“Statistics and Probability II – STAT 410”* (Spring, undergraduate class). All courses were given at the University of Illinois at Urbana-Champaign.
- **2014–2015:** *“Time Series Analysis – STAT 429”* (Fall, graduate class), *“Statistics and Probability I – STAT 400”* (Spring, undergraduate class). All courses were given at the University of Illinois at Urbana-Champaign.
- **2013–2014:** *“Introduction to Statistics – PSTAT 5A”* (Fall & Winter, undergraduate class), *“Statistics – PSTAT 120C”* (Spring, undergraduate class). All courses were given at the University of California, Santa Barbara.

Teaching Materials

EBOOKS

- Beckman, M., **Guerrier, S.**, Lee, J., Molinari, R., Orso, S. & Rudnytskyi, J., “*An Introduction to Statistical Programming Methods with R*”. Full text: <https://smac-group.github.io/ds/>.
- **Guerrier, S.**, Molinari, R., Xu, H. & Zhang, Y., “*Applied Time Series Analysis with R*”. Full text: <https://smac-group.github.io/ts/>.

WEBSITES WITH INSTRUCTIONAL VIDEOS

- Karemera, M. & **Guerrier, S.**, “*Introduction to Mathematics for Undergraduates in Economics and Management*”. All materials are in French. Youtube videos: YouTube channel. More information: <https://mkaremera-math1.netlify.app>.

WEBSITES WITH INTERACTIVE MATERIALS

- **Guerrier, S.**, Voirol, L. & Zhang, Y., “*Data Analytics for Pharmaceutical Sciences*”. More information: <https://intro-data-analytics.netlify.app/>.
- Skaloud, J. & **Guerrier, S.**, “*Inference for Large-Scale Time Series with Application to Sensor Fusion*”. More information: <https://gmwm.netlify.app/>.
- **Guerrier, S.**, Voirol, L. & Zhang, Y., “*Introduction to Data Science with R*”. More information: <https://intro-to-ds.netlify.app/>.

Course Details

UNIVERSITY OF GENEVA, SWITZERLAND

- *Introduction à la Statistique* Spring 2025 Undergraduate level course (Bachelor in International Relations) providing a hands-on introduction to Statistics. Materials: <https://intro-statistique.netlify.app/>. Class size: ≈ 300 students.
- *Modelling and Data Analysis for Pharmaceutical Sciences* Spring 2021–2025 Graduate level course (Master in Pharmacy) with Prof. Francesco Gervasio, responsible for the data analytics part which is based on a website with interactive materials accessible at <https://intro-data-analytics.netlify.app/>. Class size: ≈ 80 students.
- *Comprendre le Numérique* Fall 2020–2023 Undergraduate level course (open to all bachelor students of the University of Geneva, *cours transversal*), responsible for the module on statistical literacy. Materials: <https://github.com/stephaneguerrier/StatLiteracy>. Class size: ≈ 300 students.
- *Introduction to Data Science* Spring 2019–2023 Undergraduate level course (Bachelor in Economics and Management) on statistical programming methods based on an ebook accessible at <https://smac-group.github.io/ds/> and a website with interactive materials accessible at <https://intro-to-ds.netlify.app/>. Class size: ≈ 40 students.
- *Data Visualization* Spring 2021 Short course of 4 hours (open to all PhD students of the University of Geneva) on Data Visualization given within the program “Digital Skills for PhD Students” of the Graduate Campus. Materials: <https://intro-to-ds.netlify.app/chapter5>. Class size: ≈ 20 students.
- *Introduction to Programming* Spring 2021 Short course of 4 hours (open to all PhD students of the University of Geneva) on programming given within the program “Digital Skills for PhD Students” of the Graduate Campus. Materials: <https://intro-to-ds.netlify.app/>. Class size: ≈ 20 students.
- *R programming for Data Science* Summer 2019 Multidisciplinary graduate level course (Geneva Summer School) on statistical programming methods. This course is based on an ebook accessible at <https://smac-group.github.io/ds/>. Class size: ≈ 50 students.

SHANGHAI INTERNATIONAL STUDIES UNIVERSITY, CHINA

- *Introduction to Statistics* Winter 2021 PhD-level course (with Yuming Zhang) providing an introduction to Statistics for students of the Graduate Institute of Interpretation and Translation. Materials: <https://intro-data-analytics.netlify.app/>. Class size: ≈ 20 students.

ÉCOLE POLYTECHNIQUE FÉDÉRALE DE LAUSANNE, SWITZERLAND

- *Inference for Large-Scale Time Series with Application to Sensor Fusion* 2020, 2025 PhD-level course (with Dr. Jan Skaloud) on signal processing with applications in navigation (for PhD students in Robotics & PhD students in Civil Engineering). Materials: <https://gmwm.netlify.app/>. Syllabus accessible [here](#). Class size: ≈ 20 students.

PENNSYLVANIA STATE UNIVERSITY, USA

- *Applied Time Series Analysis (STAT 463)* Fall 2018 Undergraduate level course (BSc in Statistics) on Time Series Analysis. This course is based on an ebook accessible at <https://smac-group.github.io/ts/>. Syllabus accessible [here](#). Class size: ≈ 80 students.
- *Statistical Programming Methods (STAT 297)* Fall 2017 Undergraduate level course on statistical programming methods (open to several STEM programs). This course is based on an ebook accessible at <https://smac-group.github.io/ds/>. Class size: ≈ 50 students.

UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN, USA

- *Statistical Programming Methods (STAT 385)* Spring 2017 Undergraduate level course on statistical programming methods (open to various STEM programs). This course is based on an ebook accessible at <https://smac-group.github.io/ds/>. Syllabus accessible [here](#). Class size: ≈ 120 students.
- *Time Series Analysis (STAT 429)* Fall 2014–2016 Graduate level course (MSc and PhD in Statistics) on Time Series Analysis. This course is based on an ebook accessible at <https://smac-group.github.io/ts/>. Syllabus accessible [here](#). Class size: ≈ 60 students.
- *Time Series Forecasting (STAT 578)* Fall 2016 Graduate level course on Time Series Forecasting (open to several STEM programs). Syllabus accessible [here](#). Class size: ≈ 20 students.
- *Statistics and Probability II (STAT 410)* Spring 2016 Upper undergraduate level course in Probability and Statistics (BSc in Statistics and BSc in Mathematics). Syllabus accessible [here](#). Class size: ≈ 100 students.
- *Statistics and Probability I (STAT 400)* Spring 2015 Undergraduate level course in Probability and Statistics (open to several STEM programs). Syllabus accessible [here](#). Class size: ≈ 200 students.

UNIVERSITY OF CALIFORNIA, SANTA BARBARA, USA

- *Statistics (PSTAT 5A)* Fall 2013 & Winter 2014 Undergraduate level course in Probability and Statistics (open to various programs but designed for non-STEM students). Syllabus accessible [here](#). Class size: ≈ 450 students.
- *Probability and Statistics (PSTAT 120C)* Spring 2014 Upper division undergraduate level course in Statistics (open to various STEM programs). Syllabus accessible [here](#). Class size: ≈ 450 students.

Supervision of Master Thesis

- **Yasmine Mellal**, “*Comparative Evaluation and Validation of Statistical Methods for Assessing Bioequivalence: Application to Pitavastatin Calcium*”, Master in Pharmacy, University of Geneva, November 2025.
- **Tania Loureiro Ferreira**, “*Inference for Dependent Outcomes in Large-Scale Regression Problems with Complex Dependence Structure*”, Master in Statistics, University of Geneva, July 2025.
- **Samy Slamani**, “*Étude comparative de la bioéquivalence de moyenne et de la bioéquivalence de population*”, Master in Pharmacy, University of Geneva, April 2024.
- **Stéphanie Wasf**, “*Bioequivalence Testing for Proportions: An Application to Pediatric Oncology Treatments*”, Master in Pharmacy, University of Geneva, April 2024.
- **Thi Huong Quynh Nguyen**, “*Etude de l’impact du mode de cuisson sur l’axe hypothalamo-hypophysaire-surrénalien et les marqueurs de l’inflammation*”, Master in Pharmacy, University of Geneva, May 2022.
- **Ziyi Xuan**, “*Exploratory Proteomic Analysis of Pigs Fed on Deeply Fried Potatoes*”, Master in Pharmacy, University of Geneva, January 2022.
- **Youssef Hellioui**, “*Etude du lien entre l’alimentation et les maladies basé sur une analyse statistique de biomarqueurs*”, Master in Pharmacy, University of Geneva, December 2021.
- **Giulia Genoni**, “*Simulation-Based Methods for Interval Estimation of Time Series Models*”, Master in Statistics, University of Geneva, September 2020.

Honors and Awards

- Journal of the American Statistical Association 2024 Reproducibility Award for the paper: “*Assessing COVID-19 Prevalence in Austria with Infection Surveys and Case Count Data as Auxiliary Information*”. This award recognizes excellence in implementing reproducible analyses, generating open datasets and software, and developing end-to-end workflows. More information: <https://jasa-acs.github.io/repro-award>.
- Recipient of an SNSF Professorial Fellowship Extension (Mathematics), 2022. More information: <https://data.snf.ch/grants/grant/211007>.
- Recipient of an SNSF Professorial Fellowship (Mathematics), 2018. More information: <https://data.snf.ch/grants/grant/176843>.
- IEEE International Workshop on Metrology for Aerospace (2017), *Best Demonstration Award*.
- The Institute of Navigation (ION GNSS 2013), *Best Presentation Award*.
- The Institute of Navigation (ION GNSS 2009), *Award for Best Student Paper*.
- IGSO Prize 2008, *Award for Best Master Project on a new Aspect of Geomatics or related Fields*.

Services

- Member of the IT Committee of the School of Pharmaceutical Sciences of the University of Geneva (2022–present).
- Member of the scientific committee of the project “Data Science for All” (financed by Swiss Universities) which aims at increasing the numerical literacy within the University of Geneva community (2021–present).
- Member of the PhD in Statistics Committee of the Research Center for Statistics of the University of Geneva (2020–present).
- Organizer of the Department of Statistics Research Seminar at the University of Illinois at Urbana-Champaign (2014–2017) and at the Pennsylvania State University (2017–2018).
- Member of the Student Appeals Faculty Committee at the University of Illinois at Urbana-Champaign (2014–2017).

Professional Societies

- Member of the American Statistical Association.
- Member of the Institute of Electrical and Electronics Engineers (IEEE).

Technical and Scientific Roles

- Reviewer for international scientific journals in Statistics and Engineering.
- Member of the evaluation committee of several MSc and PhD students in Statistics and Engineering.
- Organizer of the 2023, 2024 and 2025 Data Analytics Lab workshops. More information: <https://dal-workshop.netlify.app/>.

Talks

CONFERENCE TALKS

- *Statistics*: Computational Management Science (2011, contributed), International Conference on Computational Statistics (2012, contributed), Joint Statistical Meetings (2012, contributed), International Conference on Robust Statistics (2013, contributed), Conference of the International Society for Non-Parametric (2016, invited), Joint Statistical Meetings (2019, invited), International Chinese Statistical Association Conference on Data Science (2019, invited), International Conference on Robust Statistics (2023, invited), IMS International Conference on Statistics and Data Science ICSDS (2023, 2024, 2025, invited), Rome Workshop on Veridical Data Science (2025, invited), International Conference on Frontiers of Data Science (2026, invited).
- *Pharmaceutical sciences*: Swiss Pharma Science Day (2024, invited), CRS Local Chapter Meeting DeChAt (2025, invited), AI x discovery x clinical development of drugs, vaccines, biomarkers, diagnostics (2025, invited).
- *Engineering*: Calibration and Orientation Workshop – European Spatial Data Research (2009, invited), Proceedings of the ION GNSS (2009, 2013, 2015, 2019, invited), IEEE/ION PLANS (2012, invited).

INVITED DEPARTMENT SEMINAR TALKS

- *Statistics, Probability or Mathematics*: University of California, Santa Barbara (2013, 2015), University of Illinois at Urbana-Champaign (2014, 2019), George Mason University (2014), Texas A&M University (2014), Bocconi University (2014), City University of New York (2015, 2016), Pennsylvania State University (2016, 2017, 2018, 2019, 2025), University of Calgary (2018, 2019), Auburn University (2021, 2022), EM Lyon (2023), Columbia University (2025), University of Pittsburgh (2026).
- *Biostatistics or Epidemiology*: University of Geneva (2016, 2018), University of Illinois at Chicago (2019, 2022).
- *Aerospace or Geomatics Engineering*: University of Illinois at Urbana-Champaign (2015), École Polytechnique Fédérale de Lausanne (2016, 2017), University of Calgary (2016, 2018).