

Marc Girons Lopez

Address	Oberwiesenstrasse 50 8050 Zurich (Switzerland)	Website	gironslopez.me
Birth	5 September 1986 Barcelona (Spain)	Telephone	+41 (0) 78-775 89 93
		E-mail	gironslopez@gmail.com
		Citizenship	Spain

I am a hydrologist with an interdisciplinary background working as postdoctoral researcher at the University of Zurich. I aim at contributing to build up knowledge and understanding about water related issues to make society more resilient and sustainable. I believe in continuous learning and communication and I am also interested in societal behaviour and data analysis. Everything is connected!

Professional Experience

- feb 2017 —* **Postdoctoral Researcher** • University of Zurich (Switzerland)
My research focuses on improving the realism of the snow routine of the HBV rainfall-runoff model while maintaining a low model uncertainty.
- aug 2011 — oct 2016* **Graduate Teaching Assistant** • Uppsala University (Sweden)
Lecturing, leading seminars, and leading and assisting in laboratory and field activities for both undergraduate and graduate courses.
- aug 2011 — oct 2016* **Graduate Research Assistant** • Uppsala University (Sweden)
Design and implementation of hydrology research projects within hydrology, including defining research questions, modelling, data analysis, and reporting scientific results.
- jun 2009 — aug 2009* **Quality Control Intern** • Laboratori Català de Control (Spain)
Quality control tests of cement, concrete and anchorages. Tests of soil properties, water sampling and analysis. Defining procedures for adopting ISO rules.
- jul 2008 — sep 2008* **Environmental Consultant Intern** • URS Corporation (Spain)
Environmental control tests of petrol stations, soil decontamination, and hydrogeological data processing. Fauna and sediment sampling for the quality control of rivers and dams.

Education

- aug 2011 — oct 2016* **Doctor of Philosophy (PhD)** • Uppsala University (Sweden)
Hydrology and Water Resources Science
Thesis: Information Needs for Water Resource and Risk Management: Hydro-Meteorological Data Value and Non-Traditional Information.
- aug 2009 — jun 2011* **Master of Science (MSc)** • Uppsala University (Sweden)
Earth Sciences (Hydrology/Hydrogeology)
Thesis: Modelling Climatic and Hydrological Variability in Lake Babati, Northern Tanzania.
- sep 2004 — jun 2009* **Bachelor of Science (BSc)** • Universitat Autònoma de Barcelona (Spain)
Geology
- aug 2007 — jun 2008* **Exchange student** • Université Joseph Fourier (Grenoble I) (France)
Geology and Earth Sciences

Publications

Peer-reviewed Publications

- Breinl, K., Di Baldassarre, G., **Girons Lopez, M.**, Hagenlocher, M., Vico, G., and Rutgersson, A. (2017). "Can weather generation capture precipitation patterns across climates, spatial scales and under data scarcity?" In: *Scientific Reports* 7:5449. ISSN: 2045-2322. DOI: [10.1038/s41598-017-05822-y](https://doi.org/10.1038/s41598-017-05822-y).
- Girons Lopez, M.**, Di Baldassarre, G., and Seibert, J. (2017). "Impact of social preparedness on flood early warning systems". In: *Water Resources Research* 53:1, pp. 522–534. ISSN: 1944-7973. DOI: [10.1002/2016WR019387](https://doi.org/10.1002/2016WR019387).
- Girons Lopez, M.** and Seibert, J. (2017). "Corrigendum to "Influence of hydro-meteorological data spatial aggregation on streamflow modelling" [J. Hydrol. 541 (2016) 1212–1220]". In: *Journal of Hydrology* 548, pp. 818–819. ISSN: 0022-1694. DOI: [10.1016/j.jhydrol.2016.11.047](https://doi.org/10.1016/j.jhydrol.2016.11.047).
- Girons Lopez, M.** and Seibert, J. (2016). "Influence of hydro-meteorological data spatial aggregation on streamflow modelling". In: *Journal of Hydrology* 541, pp. 1212–1220. ISSN: 0022-1694. DOI: [10.1016/j.jhydrol.2016.08.026](https://doi.org/10.1016/j.jhydrol.2016.08.026).
- Mbanguka, R. P., Lyon, S. W., Holmgren, K., **Girons Lopez, M.**, and Jarsjö, J. (2016). "Water Balance and Level Change of Lake Babati, Tanzania: Sensitivity to Hydroclimatic Forcings". In: *Water* 8:12. ISSN: 2073-4441. DOI: [10.3390/w8120572](https://doi.org/10.3390/w8120572).
- Girons Lopez, M.**, Wennerström, H., Nordén, L.-Å., and Seibert, J. (2015). "Location and Density of Rain Gauges for the Estimation of Spatial Varying Precipitation". In: *Geografiska Annaler: Series A, Physical Geography* 97:1, pp. 167–179. ISSN: 1468-0459. DOI: [10.1111/geoa.12094](https://doi.org/10.1111/geoa.12094).

Publications in Preparation

- Rivera, S. J., **Girons Lopez, M.**, Seibert, J., and Minsker, B. S. (2017a). "Flood depth determination using volunteered geographical information".
- Rivera, S. J., **Girons Lopez, M.**, Seibert, J., and Minsker, B. S. (2017b). "Probabilistic Flood Mapping Using Volunteered Geographical Information".

Theses

- Girons Lopez, M.** (2016). "Information Needs for Water Resource and Risk Management: Hydro-Meteorological Data Value and Non-Traditional Information". PhD thesis. Uppsala University, Department of Earth Sciences, p. 74. ISBN: 978-91-554-9679-1.
- Girons Lopez, M.** (2011). "Modelling Climatic and Hydrological Variability in Lake Babati, Northern Tanzania". MA thesis. Stockholm University, Department of Physical Geography, p. 57.

Conference Contributions

- Breinl, K., Di Baldassarre, G., and **Girons Lopez, M.** (2017). "Reduced-complexity multi-site rainfall generation: one million years over night using the model TripleM". In: *Geophysical Research Abstracts*. (Vienna, Austria). Vol. 19. EGU, p. 3065.
- Girons Lopez, M.**, Di Baldassarre, G., and Seibert, J. (2017). "Strengthening flood warning systems: the benefits of encouraging social preparedness". In: *Geophysical Research Abstracts*. (Vienna, Austria). Vol. 19. EGU, p. 14212.
- Girons Lopez, M.**, Vis, M., and Seibert, J. (2017). "Realism versus simplicity in the snow routine of the HBV model". In: *Geophysical Research Abstracts*. (Vienna, Austria). Vol. 19. EGU, p. 13395.
- Girons Lopez, M.**, Di Baldassarre, G., Grabs, T., Halldin, S., and Seibert, J. (2016). "Exploring the Role of Social Memory of Floods for Designing Flood Early Warning Operations". In: *Geophysical Research Abstracts*. (Vienna, Austria). Vol. 18. EGU, p. 15179.
- Girons Lopez, M.**, Di Baldassarre, G., and Seibert, J. (2016). "Impact of Social Memory on the Efficiency of Flood Early Warning Systems (FEWS)". In: *INTERPRAEVENT 2016 – Extended Abstracts*. (Lucerne, Switzerland). International Research Society INTERPRAEVENT, p. 220. ISBN: 978-3-901164-23-1.
- Rivera, S. J., **Girons Lopez, M.**, Seibert, J., and Minsker, B. S. (2016). "Probabilistic Flood Mapping using Volunteered Geographical Information". In: *2016 Fall Meeting, AGU*. (San Francisco, California). AGU, p. 134525.
- Rivera, S. J., **Girons Lopez, M.**, Minsker, B. S., and Seibert, J. (2015). "Probabilistic Flood Mapping using Volunteered Geographical Information". In: *3rd CUAHSI Conference on Hydroinformatics*. (Tuscaloosa, Alabama). CUAHSI.
- Girons Lopez, M.**, Seibert, J., Halldin, S., and Wennerström, H. (2013). "Value of distributed precipitation for flood early warning: A case study for a pre-alpine catchment in Switzerland". In: *Knowledge for the Future - Joint IAHS-IAPSO-IASPEI Assembly*. (Gothenburg, Sweden).
- Mbanguka, R. P., **Girons Lopez, M.**, and Jarsjö, J. (2013). "A Water Balance Model for assessing Hydro Climatic Variability in Tropical Lake Systems: Application to Lake Babati and Lake Emakat, Northern Tanzania". In: *Geophysical Research Abstracts*. (Vienna, Austria). Vol. 15. EGU, p. 3154.

Teaching

Training

2015

[Academic Teacher Training Course](#) • Uppsala University

Instructor

Fall 2012 – 2016

[Hydrology and Water Resource Management](#) • Uppsala University

I taught the chapters related to atmospheric water, I led field runoff measurements and a project on water balance estimation, and I wrote and graded exams.

Spring 2015 – 2016

[Field Methods in Earth Science](#) • Uppsala University

I taught how to use data loggers for environmental modelling and I led a project on evapotranspiration estimation based on field measurements.

Spring 2015 – 2016

[Groundwater and Surface Water Modelling](#) • Uppsala University

I taught the fundamentals of hydrological modelling and the HBV model, I led a project on hydrological modelling and I held a seminar on the same topic.

Spring 2013

[Climate and Landscape](#) • Uppsala University

I taught the chapters related with water in the landscape.

Teaching Assistant

Fall 2013 – 2016

[Meteorology, hydrology and Environmental Measurement Techniques](#) • Uppsala University

I led numerical exercise solving sessions, field measurements of a number of hydrological processes and a seminar on processing field data.

Fall 2012 – 2016

[GIS for Water Resources](#) • Uppsala University

I wrote laboratory exercise instructions and assisted students during laboratory work.

Fall 2015

[Snow Physics and Hydrology](#) • Uppsala University

I assisted students during laboratory work.

Fall 2012 – 2015

[Soil Mechanics and Engineering Geology](#) • Uppsala University

I reviewed concepts of classical mechanics for the students at the beginning of the course and I graded exercises.

Spring 2013 – 2014

[Field Course in Earth Science II](#) • Uppsala University

I led field measurements of a number of hydrological processes.

Fall 2012 – 2014

[Groundwater and Runoff modelling](#) • Uppsala University

I led a project on hydrological modelling using HBV and I graded reports.

Fall 2012 – 2014

[Runoff](#) • Uppsala University

I assisted students during laboratory work.

Fall 2011 – 2012

[Distribution and Treatment of Drinking Water](#) • Uppsala University

I assisted students during laboratory work, and I graded exercises and exams.

Spring 2012

[Statistical Methods in Hydrology](#) • Uppsala University

I graded exams.

Fall 2011

[Global Hydrology](#) • Uppsala University

I led topographic field measurements.

Representation Duties

- 2014 – 2016 **PhD student representative** • CNDS
I was elected as PhD student representative to the Program Board of the Centre for Natural Disaster Science (CNDS).
- 2013 **PhD student representative** • Uppsala University
I was elected as PhD student representative to the Board of the Department of Earth Sciences at Uppsala University.
- 2007 **Student representative** • Universitat Autònoma de Barcelona
I was elected as student representative to the Board of the Section of Geology at Universitat Autònoma de Barcelona.

Skills

- Programming** Python • Matlab • L^AT_EX • Fortran
- Software** ArcGIS • QGIS • HBV • Git • Inkscape • Linux
- Instrumentation** Campbell data loggers • hydro-meteorological sensors
- Languages**
Native Catalan • Spanish
Full professional proficiency English
Professional working proficiency Swedish • French
Elementary proficiency German
- Other** Swedish driving license (B)

Grants, Awards, & Honours

- 2016 **Photo contest winner** • EGU
Winner of the 2016 European Geosciences Union Photo contest with the photography "Living Flows".
- 2015 **Research Fellowship** • CUAHSI
I was sponsored by the Consortium of University for the Advancement of Hydrological Sciences (CUAHSI) to participate in the first National Flood Interoperability Experiment (NFIE) at the US National Water Center in Tuscaloosa (Alabama).
- 2014 **Travel grant** • Liljewalchs Foundation
I obtained a travel grant to participate in the EGU 2014 General Assembly in Vienna (Austria) and present the results of my research.
- 2007 **Scholarship** • Swedish-Spanish Foundation
I obtained a scholarship from the Swedish-Spanish Foundation for the Promotion of Education and Studies to help cover the expenses as a Master student in Uppsala University.
- 2007 **Scholarship** • Erasmus Programme
I obtained a scholarship to help cover the expenses of spending a year at the Université Joseph Fourier in Grenoble (France) as exchange student.

Other Activities

2016 —

Translator • Planet Press

I translate short scientific articles for kids from the European Geosciences Union (EGU) Planet Press initiative into Spanish.

2013

Volunteer • IAHS

I volunteered supporting the organisation of the 2013 IAHS, IAPSO, IAPSEI Joint Assembly in Gothenburg (Sweden).

References available on request.