Judith Eeckman

PhD in Hydro-climatology

Curriculum Vitae

Education

- 2014–2017 **PhD Student**, *HydroSciences Montpellier CNRS*, France, Characterizing hydro-climatic systems at the local scale in the Nepalese Himalayas.. Supervised by Dr. Pierre Chevallier and Dr. Aaron Boone, within the PRESHINE (Pressures on Water and Soil Resources in Nepal Himalaya) project, funded by French National Agency for Research.
- 2013–2014 Master's degree in Cartography and Environment Management, *Nantes University*, France, first rank grade obtained.
 - 2011 Exchange at Swiss Federal Institute of Technology (EPFL), Lausanne, Switzerland, Specialization in numerical solving of environmental flows.
- 2009–2012 Master's degree in Applied Mathematics and Computer Science, Grenoble Institute of Technology Ensimag, Grenoble, France, obtained with honors, Numerical modelling, optimization, statistics and computer sciences.
- 2006–2009 **Preparatory school for French 'Grandes Ecoles'**, *Lycée Saint Louis, Paris*, France.

PhD courses

- June 2016 **Summer School: Uncertainty in environmental modelling**, *Course given by Dr. Keith Beven*, Uppala Univerity, Sweden.
- June 2015 **Alpine Summer School Course XXIII**, Land-Atmosphere Interactions: coupling between the energy, water and carbon cycles, CNR, Valsavarenche, Italy.

Experience

- 2014-2016 **Teaching assistant**, *Montpellier University*, France.

 Teaching general hydrology, basic computer sciences (Bachelor level) and fluid mechanics (Master level).
- 2014 **Research Internship**, *National Research Institute of Science and Technology for* (6 months) *Environment and Agriculture (IRSTEA)*, Lyon, France, Impact of spatial coherence of precipitation fields on simulated flows for Durance River.
- 2012 **Research Internship**, *Universidad de Chile*, *Civil Engineering department*, Santiago, (5 months) Chile, Numerical modelling of non-Newtonnien flows with GeoCLAW.
 - 2011 **Research Project**, *Chair of Analysis and Numerical Simulations*, EPFL, Lausanne, Switzerland, Numerical modelling of solid transport in a multiphasic problem.

2011 **Research Internship**, *Virginia Bio-Informatic Institute*, USA, Participating to IGEM (3 months) international synthetic biology competition. Developing a numerical model for fluorescent proteins life cycle. Bronze award obtained.

Languages

French (native), English (fluent), Spanish (fluent), German (basic skills).

Publications

- [1] Eeckman, J., Chevallier, P., Boone, A., Neppel, L., De Rouw, A., Delclaux, F., and Koirala, D.: **Providing a non-deterministic representation of spatial variability of precipitation in the Everest region**, Hydrol. Earth Syst. Sci., 21, 4879-4893, 2017.
- [2] Eeckman, J., Nepal, S., Chevallier, P., Camensuli, G., Delclaux, F., Boone, A., and De Rouw, A.: Assessing reliability of hydrological simulations through model intercomparison at the local scale in the Everest region, Hydrol. Earth Syst. Sci. Discuss., 2017

Main Talks

Could snow pack and soil water dynamics explain river flows in unglaciarized Himalayan catchments?, European Geosciences Union General Assembly 2016, Oral presentation, Vienna, Austria.

Assessment of the hydrological components in the glacierized Dudh Koshi River basin (Nepal), International Symposium on Glaciology in High-Mountain Asia 2015, Team poster presentation, Kathmandu, Nepal.

Supervision

- 2017 **Gauthier Camensuli**, *Master student*, co-supervised with Pierre Chevallier, 5 months.
- 2016 Josephine Cirre and Manon Séguret, Bachelor students, 3 months.
- 2015 Emmy Rudolph and Léopold Valette, Bachelor students, 3 months.

Interests

Actively involved for scientific mediation with 'Les Petits Debrouillards' association. Water and mountain sports: white water kayaking, climbing.

Arts: ceramics, graphic arts.