

CINTIA BERTACCHI UVO

Research Professor

Marine and Freshwater Solutions
Finnish Environment Institute
Latokartanonkaari 11, FI-00790 Helsinki, Finland
Phone: +358 29 525 1555, e-mail: cintia.uvo@syke.fi
ORCID: 0000-0002-8497-0295

Professor

Dept. of Water Resources Engineering, Lund University
e-mail: cintia.bertacchi_uvo@tvrl.lth.se

Major Research Fields

- Interaction ocean–atmosphere–hydrology.
- Climate variability, climate and hydrological forecast, climate change
- Hydroclimatological processes.
- Sustainable sources of energy

Current position

- Research Professor at the Marine and Freshwater Solutions, Finnish Environment Institute, Finland.
- Professor at the Division of Water Resources Engineering, Faculty of Engineering - LTH, Lund University, Sweden (part time 10%).

Education

B.Sc. (Meteorology) University of São Paulo, São Paulo, Brazil, 1983.

MSc. (climatology) – “The Intertropical Convergence Zone and its relationship to the precipitation on north – northeast Brazil”, National Institute for Space Research, São Paulo, Brazil, 1989.

Ph.D. Eng. (water resources engineering) – “Influence of sea surface temperature on rainfall and runoff in Northeastern South America: Analysis and modeling”, Department of Water Resources Engineering, Lund University, 16-02-1998.

Postdoctoral work

- Postdoc at the International Research Institute for Climate Prediction, Columbia University, USA, under the UCAR Visitor Scientist Program, Jan/2000 to Feb/2001.

Previous positions

- Associate Professor at the Department of Water Resources Engineering, Institute of Technology, Lund University, Sweden, 2003 – 2007.
- Assistant Professor at the Department of Water Resources Engineering, Institute of Technology, Lund University, Sweden, 1998 – 2003.
- Head of the Division for Climate Forecast at the Center for Weather Forecast and Climate Studies – CPTEC, National Institute for Space Research – INPE, Brazil. Supervising work related to climate forecasting and dissemination of the forecast to final users and mass media, 1991 – 1995. Composed of about 10 people.
- Climate research and climate monitoring. Center for Weather Forecast and Climate Studies – CPTEC, National Institute for Space Research – INPE, Brazil, 1988 – 1991.
- Teacher. Institute for Flight Protection, Brazil. Full – time work on elaboration and teaching of courses related to meteorology and computer sciences, 1983 – 1988.

PhD Students

- Thaís Fujita. Analysis of precipitation and streamflow in regulated rivers using wavelet analysis.
- Anna Fontenele. Synergies and trade-offs in the Water-Energy Nexus. Double degree program between Lund University and University of Campinas, Brazil. Ongoing.

- Denis Duda da Costa. Hydrological forecast for flooding control based on climatic components for the Brazilian Semi-arid. Financed by Sciences without Borders. Completed November 2020.
- Sameh Adib Abou Rafee. Evaluation of the impacts of land use changes in the Upper Paraná River Basin. Double degree program between Lund University and University of São Paulo, Brazil. Completed October 2020.
- Kean Foster. Seasonal hydrological forecast. Completed Sep 2019.
- Claudia Canedo Rosso. Addressing the Bolivian Altiplano water scarcity for sustainable water management. (co-supervisor) Completed June 2019.
- Erik Nilsson. Sustainable Management of Water Resources under Climate Change to Alleviate Poverty in the Lake Chad Basin. Completed January 2019.
- Carla Fernandez. Ecological flow at River Pucara, Bolivia. Financed by SIDA.. Completed May 2018.
- Fabio Pereira. Impact of changes in the biosphere to local climate and hydrology - How biofuel plantations affect local atmospheric circulation and rivers. Completed Dec 2013.
- Jóna Finndís Jónsdóttir. "Effects of climate variability on hydrology and hydropower in Nordic regions". September 2007.
- Tinh Dang Nguyen, 2006. "Preparedness and mitigation measures to cope with drought in Vietnam's central highland". October 2006 (co-supervisor).
- Johan Striberger. "Vatnajökull meltwater discharge variability. An unexplored Holocene climate sensor in the Nordic Seas". Completed in October 2011 (co-supervisor).
- Sihem Testouri. "Erosion modeling of arid soils using a scaling approach" Completed in June 2009 (co-supervisor).
- Aman Mohammad Kalteh, 2007. "Improved river management and flood protection by rainfall-runoff modelling using neural networks". May 2007 (co-supervisor).

Postdoctoral fellows

- Luz Adriana Cuartas Pineda. "Previ-Secas: Characterization and Forecast of Hydrological Droughts. Ongoing.
- Jorge Martins "Impact of land use change on the high Paraná basin" Aug 2017 – Jul 2018.
- Carlos Ruberto Fragoso Jr. "Improving stochastic and conceptual modelling for long- and short-term flood forecasting in temperate and semi-arid/tropical watersheds" Oct 2015 – May 2016.
- Frede Carvalho "Strategy Development for Hydrological and Meteorological Prognosis Related Natural Disaster in the form of Computational Tools" Sep 2014 – Aug 2015.
- Mehriddin Tursunov. "Remote Identification of sugar-cane plantation from satellite". Aug 2010 – Jul 2011.
- Marcio Moraes. "Impact of changes in the biosphere to local climate and hydrology - How biofuel plantations affect local atmospheric circulation and rivers". Dept. Water Resources Engineering, Lund University, Sweden. 2010
- Diego Rivera. "Effects of climate on agriculture production in Chile". Dept. Water Resources Engineering, Lund University, Sweden. 2009

Relevant Research Projects

- "The role of hydropower as a regulatory resource in a renewable energy system with climate impact and increased internationalization of the electricity markets" The Swedish Energy Agency: 680 kSEK. 2021- 2024. Collaborator.
- Model-based Global Assessment of Hydrological Pressure – GlobalHydroPressure. Water JPI. 1.2 M€. Coordinator and Principal Investigator. 2019 – 2023.
- Long-term forecasting of wind- and hydropower availability in a fluctuating climate – Implications for production management and investments in energy storage and electric power transmission. The Swedish Energy Agency. 4.0 MSEK. 2017-2021. Collaborator.
- "Quantification of Climate Ensemble Response and Uncertainty". Vetenskapsrådet 3.6 MSEK. 2015-2019 Principal Investigator.