

## CURRICULUM VITAE (March 2017)

**Rolando CÉLLERI**

### Contact details

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### Education

PhD in Engineering (Hydrology) (2007), Catholic University of Leuven, Belgium.  
MSc in Water Resources Engineering (2000), Free University of Brussels, Belgium.  
BSc in Civil Engineering (1997), University of Cuenca, Ecuador.

### Career

2014 – *present* Full Professor, University of Cuenca.  
2010 – 2014 Professor, University of Cuenca.  
2008 – 2009 Associate Professor, University of Cuenca.  
2003 – 2007 Doctoral researcher, Catholic University of Leuven.  
2000 – 2003 Research assistant, University of Cuenca.

### Academic Activities

2013 – Head of the Department of Water Resources and Environmental Sciences  
2015 – Director of the Doctoral program in Water Resources

### Research topics

Ecohydrology  
Hydrometeorology  
Applied meteorology and climatology

### Research projects (as director or co-director)

2013 – 2017 “Identificación de los procesos hidrometeorológicos que desencadenan crecidas a partir de la información suministrada por un radar de precipitación”. Director. Funded by ETAPA and Universidad de Cuenca.  
2015 – 2017 “Estudio Comparativo de Métodos de Estimación de Evapotranspiración Actual en Suelos Húmedos de una Microcuenca de Páramo Andino”. Co-Director. Funded by Universidad de Cuenca.  
2013 – 2017 “Ciclos Meteorológicos y Evapotranspiración a lo largo de una Gradiente Altitudinal del Parque Nacional Cajas”. Co-Director. Funded by ETAPA and Universidad de Cuenca.

### Recently finished projects (as director or investigador)

2011 – 2014 “Identificación de los impactos del cambio de uso de la tierra en la hidrogeoquímica de cuencas Andinas”. Director. Funded by SENESCYT and Universidad de Cuenca.  
2012 – 2015 “Identificación de las relaciones entre las propiedades biofísicas y la respuesta hidrológica en cuencas de páramo húmedo: una base para regionalizar los parámetros de modelos hidrológicos”. Director. Funded by Universidad de Cuenca.  
2010 – 2013 “Hydrobiogeochemical fluxes and aquatic diversity at catchment scale under climate change scenarios”. Co-director. In partnership with University Giessen, Germany. Funded by the DFG.  
2010 – 2011 “Gestión de datos y modelación hidrológica para alerta temprana del Sistema Paute Integral”. Researcher. Funded by CELEC - Hidropaute.

- 2010 – 2012 “Vulnerability, impacts and adaptation to climate change with focus in water resources in Ibero-America”. In partnership with 10 Ibero-American universities. Funded by CYTED.
- 2008 – 2010 “Cuantificación de los servicios hidrológicos de cuencas hidrográficas altoandinas” PIC-08-460. Director. Funded by SENACYT and University of Cuenca.
- 2002 – 2004 3 small research grants funded by Universidad de Cuenca.

### Supervision of doctoral students

Ana Elizabeth Ochoa (2015 – ). Universidad de Cuenca.

### Co-supervision of doctoral students

Alicia Correa (2012 – ). Universidad de Giessen. Germany.

Galo Carrillo (2014 – ). Universidad de Marburg. Germany.

Johanna Orellana (2014 – ). Universidad de Marburg. Germany.

### Past doctoral students

Edison Timbe (2010 – 2015). University of Giessen.

Alex Avilés (2012 – 2017). Universidad Politécnica de Valencia.

Lenin Campozano (2012 – 2017). Universidad de Marburg.

### Teaching

Undergraduate: Basic Hydrology; Hydrological Design; Research Methodology.

MSc: Hydrology of Andean Ecosystems; Ecohydrology; Hydrological Modeling; Integrated Catchment Management; Advanced Hydrometry.

PhD: Academic Writing; Water Resources Planning and Management.

### Affiliations

International Association of Hydrological Sciences (IAHS)

### Selected papers (\* PhD Students/ \*\* MS Students)

(full list or publications is found in: [https://www.researchgate.net/profile/Rolando\\_Celleri](https://www.researchgate.net/profile/Rolando_Celleri))

- Avilés\*, A., **Célleri, R.**, Solera, A., & Paredes, J. (2016). Probabilistic Forecasting of Drought Events Using Markov Chain-and Bayesian Network- Based Models: A Case Study of an Andean Regulated River Basin. *Water*, 8(2), 37.
- Campozano\*, L., **Célleri, R.**, Trachte, K., Bendix, J., & Samaniego, E. (2016). Rainfall and cloud dynamics in the Andes: a southern Ecuador case study. *Advances in Meteorology*, 2016.
- Carrillo-Rojas\*, G., Silva, B., Córdova, M., **Célleri, R.**, & Bendix, J. (2016). Dynamic Mapping of Evapotranspiration Using an Energy Balance-Based Model over an Andean Páramo Catchment of Southern Ecuador. *Remote Sensing*, 8(2), 160.
- Mosquera\*\*, G.M., **Célleri, R.**, Lazo, P.X., Vaché, K.B., Perakis, S.S., & Crespo, P (2016). Combined Use of Isotopic and Hydrometric Data to Conceptualize Ecohydrological Processes in a High-Elevation Tropical Ecosystem. *Hydrological Processes* DOI: 10.1002/hyp.10927
- Padrón\*\*, R. S., Wilcox, B. P., Crespo, P., **Célleri, R.**, (2015). Rainfall in the Andean Páramo—New Insights from High- Resolution Monitoring in Southern Ecuador. *Journal of Hydrometeorology*, 150310071254003. <http://doi.org/10.1175/JHM-D-14-0135.1>
- Timbe\*, E., Windhorst, D., **Célleri, R.**, Timbe, L., Crespo, P., Frede, H.- G., Feyen, J., & Breuer, L. (2015). Sampling frequency trade-offs in the assessment of mean transit times of tropical montane catchment waters under semi- steady-state conditions. *Hydrology and Earth System Sciences*, 19(3), 1153–1168.
- Mosquera\*\*, G. M., Lazo, P. X., **Célleri, R.**, Wilcox, B. P., & Crespo, P. (2015). Runoff from tropical alpine grasslands increases with areal extent of wetlands. *Catena*, 125, 120– 128.
- Córdova\*\*, M., Carrillo-Rojas, G., Crespo, P., Wilcox, B., & **Célleri, R.**, (2015). Evaluation of the Penman-Monteith (FAO 56 PM) Method for Calculating Reference Evapotranspiration Using Limited Data: Application to the Wet Páramo of Southern Ecuador. *Mountain Research and Development*, 35(3), 230–239.
- **Célleri, R.**, Buytaert, W., De Bièvre, B., Tobón, C., Crespo, P., Molina, J., & Feyen, J. (2009). Understanding the hydrology of tropical Andean ecosystems through an Andean Network of Basins.

- **Célleri, R.**, & Feyen, J. (2009). The Hydrology of Tropical Andean Ecosystems: Importance, Knowledge Status, and Perspectives. *Mountain Research and Development*, 29(4), 350–355. <http://doi.org/10.1659/mrd.00007>
- Buytaert W, **Célleri R**, De Bièvre B, Cisneros F, Wyseure G, Deckers J, Hofstede R. 2006. Human impact on the hydrology of the Andean páramos. *Earth-Science Reviews* 79, 53-72.
- Buytaert W, **Célleri R**, Willems P, De Bièvre B, Wyseure G. 2006. Spatial and temporal rainfall variability in mountainous areas: A case study from the south Ecuadorian Andes. *Journal of Hydrology* 329, 413-421.
- **Célleri R**, Willems P, Buytaert W, Feyen J. 2007. Space-time rainfall variability in the Paute River Basin, Ecuadorian Andes. *Hydrological Processes*. DOI: 10.1002/hyp.6575.
- **Célleri R.**, Willems, P., Feyen, J. 2010 Evaluation of a data-based hydrological model for simulating the runoff of medium sized Andean basins. *Maskana* 1, 61-78.
- Buytaert W, Vuille M, Dewulf A, Urrutia R, Karmalkar R, **Célleri R**. 2010. Uncertainties in climate change projections and regional downscaling in the tropical Andes: implications for water resources management. *Hydrology and Earth System Sciences*, 14, 1247–1258.