

Carolina Natel de Moura

PhD student in Water Resources & Environmental Engineering at Federal University of Parana (Brazil)

Visiting PhD student at University of Zurich (Switzerland)

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Education

Hydrology and Climate (H2K) Group, University of Zurich, Zurich, Switzerland	09/2019 – 08/2020
<ul style="list-style-type: none">▪ Visiting PhD student▪ Emphasis: Benchmarking LSTM (Long Short-Term Memory) for Hydrological Modeling in Non-stationary Conditions / Uncertainty Analysis / Climate Change Impacts on Streamflow▪ Supervision: Professor Jan Seibert▪ Grantee of: Swiss Government Excellence Scholarship, Switzerland	
Hydrology and Energy Studies Lab (LABHEE), Federal University of Parana, Curitiba, Brazil	09/2017– 08/2019
<ul style="list-style-type: none">▪ PhD student▪ Thesis title: Uncertainties of Climate Change Impacts on Water Resources: A Machine Learning Approach▪ Supervision: Professor Miriam Rita Moro Mine▪ Grantee of: Coordination of Improvement of Higher-Level Personnel, CAPES, Brazil.	
Hydrology Lab (LABHIDRO), Santa Catarina State University, Lages, Brazil	07/2015– 08/2017
<ul style="list-style-type: none">▪ Environmental Sciences, MSc.▪ Thesis: Hydrological impacts of climate change in the Alto Canoas watershed, SC, Brazil▪ Supervision: Sílvia Luís Rafaeli Neto▪ Grantee of: Uniedu, Brazil.	
Santa Catarina State University, Lages, Brazil	02/2010– 12/2014
<ul style="list-style-type: none">▪ Environmental Engineering, Bsc.▪ Thesis: Hydrological monitoring in the “Sala de Situação” of the EPAGRI/CIRAM/ANA in the State of Santa Catarina.▪ Supervision: Sílvia Luís Rafaeli Neto	

Extracurricular activities

1. Small Group Teaching, University of Zurich (tutor), 2020
2. Machine Learning & Python Group (MLPY), Federal University of Parana (Co-founder and tutor) – 2019
3. “Estimation of project flow in small hydrographic basins: a comparative study between I-PAI-WU, VEN TE CHOW and Triangular Unit Hydrographs”, Federal University of Parana, 2017. Bachelor thesis (Member of examination board)
4. Short Course on ArcGIS applied to Water Resources Management (Lecturer) - 2017
5. Short Course on ArcGIS applied to Environmental Engineering (Lecturer) - 2017.
6. Seminar on Urban APPs - APPUrb 2011 (Co-organizer)
7. Seminar on Georeferencing, Register and Certification of Rural Property – GEOCCIR, 2011 (Co-organizer)

Publications

Moura, C. N., Neto, S. L. R., Campos, C.G.C., Sá, E. A. S. Hydrological Impacts of Climate Change in a Well-preserved Upland Watershed. *Water Resources Management*, 2020 [In press].

Sá, E. A. S, **Moura, C. N.**, Padilha, V.L, Campos, C.G.C. Trends in daily precipitation in highlands region of Santa Catarina, southern Brazil. *Ambiente & Água Journal*, v. 13, p. 1, 2018

Berlanda, A., **Moura, C. N.**, Sá, E. A. S., Biffi, L. J., Becegato, V. A. Dynamics of vegetation cover change and land use with geotechnology support in the watershed of the Desquite river - SC. *Ra'e Ga Journal - Geographic Space in Analysis*, v. 43, p. 43-56, 2018.

Souza, L. C., Campos, M. L., Reichert, G., **Moura, C. N.** Arsenic content of soils from three regions of Santa Catarina State. *Ambiente & Água Journal*, v. 11, p. 135-144, 2016.

Complete works published in proceedings of conferences

1. **Moura, C. N.**, MINE, M. R. M., KAVISKI, E. Uncertainties and impacts of climate change on water resources, Buenos Aires, Argentina. XXVIII Latin American Hydraulics Congress, 2018.
2. **Moura, C. N.**, FERNANDES, L. G., GOMES, J., MIRANDA JR. G. X., VIEIRA, E. Hydrological Impact of the West Dam in Taió, Brazil, in damming floods of the Itajaí do Oeste River, Buenos Aires, Argentina. XXVIII Latin American Hydraulics Congress, 2018.
3. **Moura, C. N.**, Neto, S. R., Sá, E. A. S., Padilha, V. L. Machine Learning performance to fill missing data in daily and monthly flow series, Florianópolis - SC. XXII Brazilian Symposium on Water Resources, 2017.
4. Liebl, B., **Moura, C. N.**, Campos, C. G. C., Sá, E. A. S., Caron, H. R., Neto, S. R. Validation of the ETA-HadGEM2-ES climate model for the city of Lages, Santa Catarina, Florianópolis - SC. Congress proceedings XXII Brazilian Symposium on Water Resources, 2017.
5. **Moura, C. N.**, Kauling, S., Silva, J. B., Reichert, G., Cunha, M. B. Diagnosis and environmental planning of food industry in the Highlands Region of Santa Catarina, Curitiba. International Congress UNINTER Proceedings, 2016.
6. **Moura, C. N.**, Kauling, S., Silva, J. B., Reichert, G., Cunha, M. B. Cleaner Production Program in a university bar and restaurant, 2016, Curitiba. International Congress UNINTER Proceedings, 2016.
7. **Moura, C. N.**, Sá, E. A. S., Padilha, V. L., Cunha, M. B. Analysis of the morphometric properties of the Carahá river basin, Lages, SC, 2016. XII Catarinense Forest Symposium Proceedings, 2016.
8. **Moura, C. N.**, Reichert, G., Kauling, S., Silva, J. B. Socio-environmental diagnosis of a river in the highlands region of Santa Catarina, 2016, Lages. Catarinense Forest Symposium Proceedings, 2016.
9. Berlanda, A., **Moura, C. N.**, Lorenzoni, F. P., Lunardi, W. G., Padilha, V. L., Degree of environmental deterioration of sector 4 of the Canoas river basin, 2016, Lages. Catarinense Forest Symposium Proceedings, 2016.
10. Martins Neto, R. P., Debastiani, A. B., Neto, S. L., Sá, E. A. S., **Moura, C. N.** Conceptual Modeling for Water Quality Assessment of the Canoas River Basin, 2015, Lages - SC. PPGAS Symposium Proceedings, 2015.

11. Guollo, K., Francheschi, F., Possenti, J. C., Debastiani, A. B., **Moura, C. N.** Pre-germinating treatment of *Aspidosperma parvifolium* and *Gallesia integrifolia* seeds, 2015, Lages - SC. PPGAS Symposium Proceedings, 2015.

Events

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1. Applied Machine Learning Days (AMLD), Lausanne, Switzerland, 2020
 2. ZHydro Day 2019, Zurich, Switzerland, 2019
 3. 16th PhD Workshop 'Hydrological modeling across different landscapes', Freiburg, Germany, 2019
 4. XXVIII Latin American Hydraulics Congress, Buenos Aires, Argentina, 2018
 5. I Symposium of the Post-Graduation Program in Water Resources and Environmental Engineering, Curitiba, Brazil, 2018
 6. XXII Brazilian Symposium on water resources – SBRH, Florianópolis, Brazil, 2017
 7. Meeting of Latin American Basin Organizations – RELOB, Florianópolis, Brazil, 2017
 8. I South Symposium on Environmental Sciences, Lages, Brazil, 2017.
 9. XII Catarinense Forest Symposium, Lages, Brazil, 2016.
 10. III International Symposium on Science, Health and Territory, Lages, Brazil, 2015.
 11. 21^o Seminar of Scientific Initiation, Lages, Brazil, 2013.
 12. VIII Brazilian Congress of Energy Planning, Curitiba, Brazil, 2012.
 13. 2nd Academic Week of Environmental Engineering, Lages, Brazil, 2011.
 14. VII Ecological Action Caveiras River, Lages, Brazil, 2011.

Technical skills

Statistics & Machine Learning: R, Python

Hydrological model: HBV, SWAT

Other: ArcGIS, ENVI, Microsoft Office, LaTeX, Git

Language

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- Portuguese (native language)
 - English (B2, TOEFL ITP)
 - French (basic)