

# Luan Carlos de S. M. Ozelim

AI CONSULTANT · STATISTICAL ANALYSIS EXPERT · DEEP LEARNING EXPERT · CIVIL & GEOTECHNICAL ENGINEER · D.Sc.

SCES Trecho 4, Ed. Brisas do Lago, Apto E107, Asa Sul, Brasília - DF, 70200-004, Brazil

☎ (+55) 61-98159-3068 | ✉ luanoz@gmail.com | 🌐 luan-ozelim | 📧 luan.ozelim | 🎓 Google Scholar Profile | 📖 Scopus Profile | 📄 WoS Profile

## Summary

Has a B.Sc. degree in Civil Engineering and a Doctoral Degree in Geotechnical Engineering (GE) from the University of Brasília (UnB). Besides, has been granted four post-doctoral fellowships to study GE at such university, where he currently holds a Full Research Collaborator position and carries out a number of GE research activities. He conducted postdoctoral research at the Aeronautics Institute of Technology (ITA) in São José dos Campos, Brazil, where he now holds a position as a Collaborating Researcher. Has been conferred on an Honorary Lecturer title at University College London's (UCL) Dept of Civil, Environ & Geomatic Engineering. His areas of interest encompass Statistical Analysis, Mathematical Statistics, Deep Learning and Data Science. Has published papers addressing issues on Civil Engineering (Hydraulics, Geotechnical and Geo-environmental Engineering), Pure and Applied Mathematics and Statistics, Network Engineering, Theoretical Computer Science and Biomedicine. Mostly, his studies are related to the application of mathematical, statistical and computational tools to the modeling of experimental data and physical phenomena, specially by using Statistical and Machine Learning techniques. Recently, has been part of several R&D teams working on using Deep Learning and Machine Learning for industry applications, especially on the monitoring of earth dams and tailing piles. Has been recently recognized by the Coordination for the Improvement of Higher Education Personnel (CAPES) as the youngest student to obtain a doctoral Degree in Brazil (22 years, 1 month and 6 days), among all the areas of study. Has also worked as a Civil Engineer at the Federal Senate of Brazil since 2014, with more than 10 years of experience with the design and the management of Civil Engineering works. Since 2024, has been an AI Consultant at Oxford Immune Algorithmics.

## Education

### University of Brasília

Brasília, Brazil

POSTDOCTORAL FELLOWSHIP IN GEOTECHNICAL ENGINEERING

Jun. 2024 - May 2025

- Got a Senior Scholarship from the National Council for Scientific and Technological Development (CNPq) to carry out his studies.

### University of Brasília

Brasília, Brazil

POSTDOCTORAL FELLOWSHIP IN GEOTECHNICAL ENGINEERING

Jun. 2022 - Nov. 2023

- Got a Senior Scholarship from the National Council for Scientific and Technological Development (CNPq) to carry out his studies.

### Aeronautics Institute of Technology

São José dos Campos, Brazil

POSTDOCTORAL FELLOWSHIP IN AERONAUTICAL INFRASTRUCTURE ENGINEERING

Jul. 2022 - Jun. 2023

### University of Brasília

Brasília, Brazil

POSTDOCTORAL FELLOWSHIP IN GEOTECHNICAL ENGINEERING

Jul. 2018 - Jul. 2019

- Got a Scholarship from the National Council for Scientific and Technological Development (CNPq) to carry out his studies.

### University of Brasília

Brasília, Brazil

POSTDOCTORAL FELLOWSHIP IN GEOTECHNICAL ENGINEERING

Nov. 2016 - Oct. 2017

- Got a Scholarship from the National Council for Scientific and Technological Development (CNPq) to carry out his studies.

### University of Brasília

Brasília, Brazil

D.Sc. IN GEOTECHNICAL ENGINEERING

Aug. 2012 - July. 2014

- Got a Scholarship from the Coordination for the Improvement of Higher Education Personnel (CAPES) to carry out his studies.
- Got a Grade Point Average (GPA) of 5.0/5.0

### University of Brasília

Brasília, Brazil

B.Sc. IN CIVIL ENGINEERING

Aug. 2008 - July. 2012

- Got several Scholarships from the Ministry of Education (MEC) National Council for Scientific and Technological Development (CNPq) and University of Brasília (UnB) during his undergraduate studies.
- Got a Grade Point Average (GPA) of 4.72/5.0

## Work Experience

### University College London - UCL

London, UK

HONORARY LECTURER

Jun. 2025 - today

- Has been an Honorary Lecturer in the Dept of Civil, Environ & Geomatic Eng.

### Oxford Immune Algorithmics

Reading, UK

AI CONSULTANT

Feb. 2024 - today

- Has been an AI Consultant directly working with the sole founder, previous CEO and current Chief Visionary Officer of Oxford Immune Algorithmics, Prof. Dr. Hector Zenil.

## Aeronautics Institute of Technology

RESEARCH COLLABORATOR

São José dos Campos, Brazil

Jul. 2023 - Jun. 2026

- Co-advised students on their Master thesis/Doctoral dissertations in Geotechnical Engineering
- Research topics include: numerical, statistical and mathematical modelling of experimental data; machine learning and big data; deep learning; constitutive modelling; inverse modelling

## University of Brasília

FULL RESEARCH COLLABORATOR

Brasília, Brazil

May. 2020 - Today

- Co-advised three students on their Master thesis in Geotechnical Engineering
- Co-advised three (one ongoing) students on their Doctoral dissertations in Geotechnical Engineering
- Research topics include: numerical, statistical and mathematical modelling of experimental data; machine learning and big data; deep learning; constitutive modelling

## University of Brasília

JUNIOR RESEARCH COLLABORATOR

Brasília, Brazil

Nov. 2015 - Dec. 2019

- Co-advised one student on his Master thesis in Geotechnical Engineering
- Co-advised one student on his Bachelor thesis in Geotechnical Engineering
- Research topics included: numerical, statistical and mathematical modelling of experimental data; 3d printing, machine learning and big data

## University Center of Brasília (UnICEUB)

ASSOCIATE PROFESSOR

Brasília, Brazil

Ago. 2014 - Dec. 2015

- Taught Calculus 1, Calculus 3, Linear Algebra, Physics 1 and Soil Mechanics 1
- Co-advised one student on his Bachelor thesis in Geotechnical Engineering

## Federal Senate of Brazil

LEGISLATIVE ANALYST - CIVIL ENGINEERING

Brasília, Brazil

May. 2014 - Present

- Worked as a Project Manager for several engineering/architectural designs
- Worked as a Maintenance Engineer, focusing on Civil Engineering issues
- Worked as a Civil Engineering designer. The designs included urban drainage, slope stability and retaining walls design, pavement design, structural design, among others
- From July 2021 until today is the Coordinator of the Coordination of Infrastructure Designs and Works
- From April 2020 until July 2021 was an Assistant Manager at the Coordination of Infrastructure Designs and Works
- From September 2019 until April 2020 was the Chief of the Civil Maintenance Unit
- From March 2019 until September 2019 was the Director of the Infrastructure Department. This area is responsible for all the Engineering and Architecture designs and works of the Federal Senate of Brazil
- From June 2017 until March 2019 was the General Coordinator of the Infrastructure Department, which is equivalent to a Vice-Director position. This area is responsible for all the Engineering and Architecture designs and works of the Federal Senate of Brazil
- From October 2015 until June 2017 was the Coordinator of Maintenance, which was responsible for the Maintenance of all the Built Complex of the Senate with respect to all the Engineering subjects (Civil, Electrical and Mechanical)
- From June 2014 until October 2015 was the Chief of the Civil Maintenance Unit

## Reviewing & Publishing

### Editorial Roles

ACADEMIC EDITOR

Journals

2023 - Present

- Is part of the editorial board of PLoS One

### Academic Reviewing

REVIEWER

Journals & Databases

2011 - Present

- Is part of the board of reviewers of several International journals, namely: PLoS One, the International Journal of Geomechanics (ASCE), Entropy, Patterns, GEOSYNTHETICS INTERNATIONAL, Structural Control and Health Monitoring, Symmetry, CHEMBIOENG REVIEWS, Mathematics, Sustainability, Frontiers Of Structural And Civil Engineering, Advanced Studies in Contemporary Mathematics (Kyungshang), Alexandria Engineering Journal, REM - INTERNATIONAL ENGINEERING JOURNAL, Scientia Iranica, European Journal of Soil Science, Journal of Zhejiang University SCIENCE A, Flow Measurement and Instrumentation, Engenharia Sanitária e Ambiental, Energies, Axioms, AIMS Mathematics
- Is a reviewer of scientific documents for the Zentralblatt MATH and Mathematical Reviews (AMS) databases

### Academic Publications

AUTHOR & CO-AUTHOR

Journals & Proceedings

2010 - Present

- Has published 68 academic papers in high impact journals. These are presented below.
- Also published 4 book chapters and 20 peer-reviewed full papers on the proceedings of national and international conferences. For simplicity, these publications will be omitted.

## References

Banerjee, B., Mallick, M., Amir, M., Hameed, A., Ozelim, L., Kar, N. R., Babu, E., Venkatesham, K., Venkateshwarulu, M., Hassan, T., Samanta, V., Kisku, P. C., Paul, D., Kumar, P., & Panda, A. (2025). Holocene climate variability deci-

- phered from chilika lagoon sediments: Implication for anthropogenic activity or paleocyclones? *Geosystems and Geoenvironment*, 100390. <https://doi.org/10.1016/j.geogeo.2025.100390>
- Banerjee, B., Mallick, M., Kumar, V., Babu, E., Luan, O., Balu, G., Kumar, T. V., Kar, N. R., Hassan, T., Tiwari, M., Sakthivel, T., Ghosh, P., Satyanarayanan, M., Krishna, A. K., Kumar, S., & Raza, W. (2025). Paleo-productivity reconstruction in bay of bengal during the past 1.3 ma: Implications for glacial-interglacial dynamics and southern hemispheric processes. *Palaeogeography, Palaeoclimatology, Palaeoecology*, 672, 113004. <https://doi.org/10.1016/j.palaeo.2025.113004>
- Ferrari de Campos, D. J., Camapum de Carvalho, J., Queiroz, P. I. B. d., Ozelim, L. C. S. M., Schiavon, J. A., Ribeiro, D. B., & Domingues, V. R. (2025). Using continuous flight auger pile execution energy to enhance reliability and reduce costs in foundation construction. *Automation*, 6(2), 24. <https://doi.org/10.3390/automation6020024>
- Soares, J. A., Ozelim, L. C., Bacelar, L., Ribeiro, D. B., Stephany, S., & Santos, L. B. (2025). MI4ff: A machine-learning framework for flash flood forecasting applied to a brazilian watershed. *Journal of Hydrology*, 132674. <https://doi.org/10.1016/j.jhydrol.2025.132674>
- Zenil, H., & de Sena Monteiro Ozelim, L. C. (2025). Fractal spatio-temporal scale-free messaging: Amplitude modulation of self-executable carriers given by the weierstrass function's components. *Information Sciences*, 706, 121988. <https://doi.org/10.1016/j.ins.2025.121988>
- Campos, D., Morandini, T., Ferreira, S., Camapum, J., Cavalcante, A., & Ozelim, L. (2024). Effect of soil-pile contact parameters on pile bearing capacity value (A. Viana da Fonseca & C. Ferreira, Eds.). *E3S Web of Conferences*, 544, 06005. <https://doi.org/10.1051/e3sconf/202454406005>
- da Fonseca, T. A., Quintino, F. S., Ozelim, L. C. S. M., & Rathie, P. N. (2024). Estimation of  $p(x < y)$  for fréchet, reversed weibull and weibull distributions: Analytical expressions, simulations and applications. *Networks and Heterogeneous Media*, 19(4), 1424–1447. <https://doi.org/10.3934/nhm.2024061>
- Lima, R. K., Quintino, F. S., da Fonseca, T. A., Ozelim, L. C. d. S. M., Rathie, P. N., & Saulo, H. (2024). Assessing the impact of copula selection on reliability measures of type  $p(x < y)$  with generalized extreme value marginals. *Modelling*, 5(1), 180–200. <https://doi.org/10.3390/modelling5010010>
- Lima, R. K., Quintino, F. S., Oliveira, M., Ozelim, L. C. d. S. M., da Fonseca, T. A., & Rathie, P. N. (2024). Multicomponent stress–strength reliability with extreme value distribution margins: Its theory and application to hydrological data. *J*, 7(4), 529–545. <https://doi.org/10.3390/j7040032>
- Oliveira, M., Quintino, F. S., Aguiar, D., Rathie, P. N., Saulo, H., Fonseca, T. A. d., & Ozelim, L. C. d. S. M. (2024). On the stress–strength reliability of transmuted gev random variables with applications to financial assets selection. *Entropy*, 26(6), 441. <https://doi.org/10.3390/e26060441>
- Ozelim, L. C. d. S. M., Brasil Cavalcante, A. L., Rowland, T., & Baetens, J. M. (2024). An alternative representation of turing machines by means of the iota-delta function. *Complex Systems*, 32(4), 381–393. <https://doi.org/10.25088/complexsystems.32.4.381>
- Ozelim, L. C. d. S. M., Casagrande, M. D. T., & Cavalcante, A. L. B. (2024). Norsand4ai: A comprehensive triaxial test simulation database for norsand constitutive model materials. *Geoscientific Model Development*, 17(8), 3175–3197. <https://doi.org/10.5194/gmd-17-3175-2024>
- Quintino, F. S., Ozelim, L. C. d. S. M., Fonseca, T. A. d., & Rathie, P. N. (2024). Stress–strength reliability of the type  $p(x < y)$  for birnbaum–saunders components: A general result, simulations and real data set applications. *Modelling*, 5(1), 223–237. <https://doi.org/10.3390/modelling5010012>
- Quintino, F. S., Rathie, P. N., Ozelim, L. C. d. S. M., & da Fonseca, T. A. (2024). Estimation of  $p(x < y)$  stress–strength reliability measures for a class of asymmetric distributions: The case of three-parameter p-max stable laws. *Symmetry*, 16(7), 837. <https://doi.org/10.3390/sym16070837>
- de Sena Monteiro Ozelim, L. C., Ribeiro, D. B., Schiavon, J. A., Domingues, V. R., & de Queiroz, P. I. B. (2023). HPOSS: A hierarchical portfolio optimization stacking strategy to reduce the generalization error of ensembles of models (A. Arratia, Ed.). *PLOS ONE*, 18(8), e0290331. <https://doi.org/10.1371/journal.pone.0290331>
- Ozelim, L. C. d. S. M., Ferrari de Campos, D. J., Cavalcante, A. L. B., & Camapum de Carvalho, J. (2023). An energy-based big data framework to estimate the young's moduli of the soils drilled during the execution of continuous flight auger piles. *Axioms*, 12(4). <https://doi.org/10.3390/axioms12040340>
- Quintino, F. S., Oliveira, M., Rathie, P. N., Ozelim, L. C. S. M., & da Fonseca, T. A. (2023). Asset selection based on estimating stress-strength probabilities: The case of returns following three-parameter generalized extreme value distributions. *AIMS Mathematics*, 9(1), 2345–2368. <https://doi.org/10.3934/math.2024116>
- Rathie, P. N., Ozelim, L. C. d. S. M., Quintino, F., & Fonseca, T. A. d. (2023). On the extreme value h-function. *Stats*, 6(3), 802–811. <https://doi.org/10.3390/stats6030051>
- Borges, L. P. d. F., Cavalcante, A. L. B., & Ozelim, L. C. d. S. M. (2022). Order out of chaos in soil-water retention curves. *Water*, 14(15). <https://doi.org/10.3390/w14152421>

- de Moraes, R. M., Ozelim, L. C. d. S. M., & Cavalcante, A. L. B. (2022). Generalized skewed model for spatial-fractional advective-dispersive phenomena. *Sustainability*, 14(7). <https://doi.org/10.3390/su14074024>
- de Sena Monteiro Ozelim, L. C., Sodhi, C. S., & Rathie, P. N. (2022). Statistical reinterpretation of dielectric relaxation models. *Communications in Nonlinear Science and Numerical Simulation*, 107, 106117. <https://doi.org/https://doi.org/10.1016/j.cnsns.2021.106117>
- Domingues, V. R., Ozelim, L. C. d. S. M., Assis, A. P. d., & Cavalcante, A. L. B. (2022). Combining numerical simulations, artificial intelligence and intelligent sampling algorithms to build surrogate models and calculate the probability of failure of urban tunnels. *Sustainability*, 14(11). <https://doi.org/10.3390/su14116385>
- Ferrari de Campos, D. J., Ozelim, L. C. d. S. M., Cavalcante, A. L. B., Silva, C. M., & Camapum de Carvalho, J. (2022). Execution energy of continuous flight auger piles as an assessment tool to evaluate the mechanical response of the soil mass. *Soil & Rocks*, 45(2), e2022000622. <https://doi.org/10.28927/SR.2022.000622>
- Ozelim, L. C. d. S. M., Borges, L. P. d. F., Cavalcante, A. L. B., Albuquerque, E. A. C., Diniz, M. d. S., Góis, M. S., Costa, K. R. C. B. d., Sousa, P. F. d., Dantas, A. P. d. N., Jorge, R. M., Moreira, G. R., Barros, M. L. d., & Aquino, F. R. d. (2022). Structural health monitoring of dams based on acoustic monitoring, deep neural networks, fuzzy logic and a cusum control algorithm. *Sensors*, 22(7). <https://doi.org/10.3390/s22072482>
- Ozelim, L. C. d. S. M., Ferrari de Campos, D. J., Cavalcante, A. L. B., Camapum de Carvalho, J., & Silva, C. M. (2022). Estimating shear strength properties of the surrounding soils based on the execution energies of piles. *Geotechnics*, 2(2), 457–466. <https://doi.org/10.3390/geotechnics2020022>
- Rathie, P. N., & Ozelim, L. C. d. S. M. (2022). On the relation between lambert w-function and generalized hypergeometric functions. *Stats*, 5(4), 1212–1220. <https://doi.org/10.3390/stats5040072>
- de Andrade, B. B., Matsushita, R. Y., Rathie, P. N., Ozelim, L. C. S. M., & de Oliveira, S. B. (2021). On a weighted poisson distribution and its associated regression model. *Chilean Journal of Statistics*, 12(2), 229–252. <http://soche.cl/chjs/volumes/12/ChJS-12-02-06.pdf>
- de Sena Monteiro Ozelim, L. C., Paz, Y. P. L., da Cunha, L. S., & Cavalcante, A. L. B. (2021). Enhanced landfill's characterization by using an alternative analytical model for diffusion tests. *Environ Monit Assess*, 193. <https://doi.org/https://doi.org/10.1007/s10661-021-09475-3>
- Ferrari de Campos, Darym J., Camapum de Carvalho, José, Gitirana, Gilson F. N., Cavalcante, Andre L. B., & Ozelim, Luan C. S. M. (2021). Analysis of the bearing capacity of continuous flight auger piles in terms of their excavation energy and of rainfall data. *MATEC Web Conf.*, 337, 03010. <https://doi.org/10.1051/mateconf/202133703010>
- Ozelim, L. C. S. M., Dias, U. S., & Rathie, P. N. (2021). Revisiting the lognormal modelling of shadowing effects during wireless communications by means of the  $\alpha$ - $\mu$ / $\alpha$ - $\mu$  composite distribution. *Modelling*, 2(2), 197–209. <https://doi.org/10.3390/modelling2020010>
- Rathie, P. N., de Sena Monteiro Ozelim, L. C., & de Andrade, B. B. (2021). Portfolio management of copula-dependent assets based on  $p(y < x)$  reliability models: Revisiting frank copula and dagum distributions. *Stats*, 4(4), 1027–1050. <https://doi.org/10.3390/stats4040059>
- Sodhi, C. S., de Sena Monteiro Ozelim, L. C., & Rathie, P. N. (2021). Dielectric relaxation model of human blood as a superposition of debye functions with relaxation times following a modified-weibull distribution. *Heliyon*, 7(3), e06606. <https://doi.org/10.1016/j.heliyon.2021.e06606>
- de S. M. Ozelim, L. C., & Cavalcante, A. L. B. (2019). Combining microtomography, 3d printing, and numerical simulations to study scale effects on the permeability of porous media. *International Journal of Geomechanics*, 19(2), 04018194. [https://doi.org/10.1061/\(ASCE\)GM.1943-5622.0001340](https://doi.org/10.1061/(ASCE)GM.1943-5622.0001340)
- de Sena Monteiro Ozelim, L. C., & Rathie, P. N. (2019). Linear combination and reliability of generalized logistic random variables. *European Journal of Pure and Applied Mathematics*, 12(3), 722–733. <https://doi.org/10.29020/nybg.ejpam.v12i3.3444>
- Mota, K. M., de Alvarenga Silva, W., de S. M. Ozelim, L. C., Vale, L. M., Dias, U. S., & Rathie, P. N. (2019). Spectrum sharing systems capacity under  $\eta$ - $\mu$  fading environments. *Journal of the Franklin Institute*, 356(12), 6741–6756. <https://doi.org/10.1016/j.jfranklin.2019.05.037>
- de S. M. Ozelim, L. C., & Cavalcante, A. L. B. (2018a). 3d cellular automata as a computational tool to generate artificial porous media. *International Journal of Geomechanics*, 18(9), 04018096. [https://doi.org/10.1061/\(ASCE\)GM.1943-5622.0001242](https://doi.org/10.1061/(ASCE)GM.1943-5622.0001242)
- de S. M. Ozelim, L. C., & Cavalcante, A. L. B. (2018b). Representative elementary volume determination for permeability and porosity using numerical three-dimensional experiments in microtomography data. *International Journal of Geomechanics*, 18(2), 04017154. [https://doi.org/10.1061/\(ASCE\)GM.1943-5622.0001060](https://doi.org/10.1061/(ASCE)GM.1943-5622.0001060)

- Ozelim, L. C. d. S. M., & Cavalcante, A. L. B. (2018). The iota-delta function as an alternative to boolean formalism. *International Journal of Foundations of Computer Science*, 29(03), 415–423. <https://doi.org/10.1142/S0129054118500120>
- Rathie, A., de S.M. Ozelim, L., & Rathie, P. (2018). On a new identity for the h-function with applications to the summation of hypergeometric series. *Turkish Journal of Mathematics*, 42, 924–935. <https://doi.org/10.3906/mat-1705-48>
- Rathie, P., & de S.M. Ozelim, L. (2018). Corrigendum to 'exact and approximate expressions for the reliability of stable levy random variables with applications to stock market modelling' [j. comput. appl. math. 321 (2017) 314–322]. *Journal of Computational and Applied Mathematics*, 343, 771–773. <https://doi.org/10.1016/j.cam.2018.04.042>
- Mascarenhas, P. V. S., Albuquerque, B. C. P., Campos, D. J. F., Almeida, L. L., Domingues, V. R., & Ozelim, L. C. S. M. (2017). Evaluation of the mechanical behavior of a retaining wall structure on a weathered soil through probabilistic methods. *International Journal of Civil and Environmental Engineering*, 11(11), 1531–1535. <https://doi.org/10.5281/zenodo.1132683>
- Ozelim, L., Cavalcante, A., & Baetens, J. (2017). On the iota-delta function: A link between cellular automata and partial differential equations for modeling advection–dispersion from a constant source. *Journal of Supercomputing*, 73, 700–712. <https://doi.org/10.1007/s11227-016-1795-7>
- Rathie, P., & de S.M. Ozelim, L. (2017). Exact and approximate expressions for the reliability of stable lévy random variables with applications to stock market modelling. *Journal of Computational and Applied Mathematics*, 321, 314–322. <https://doi.org/10.1016/j.cam.2017.02.043>
- Ozelim, L. C. d. S. M., Otiniano, C. E. G., & Rathie, P. N. (2016). On The Linear Combination Of N Logistic Random Variables And Reliability Analysis. *South East Asian Journal of Mathematics and Mathematical Sciences*, 12(2), 19–34. <https://doi.org/10.5281/zenodo.3247053>
- Ozelim, L. C. d. S. M., Zubeldia, E. H., Cavalcante, A. L. B., & Palmeira, E. M. (2016). On Modeling Geotextiles by means of Elementary Cellular Automata. *Electronic Journal of Geotechnical Engineering*, 21(2), 1311–1323. <https://doi.org/10.5281/zenodo.3247049>
- Rathie, P., Ozelim, L. S., & Otiniano, C. (2016). Exact distribution of the product and the quotient of two stable lévy random variables. *Communications in Nonlinear Science and Numerical Simulation*, 36, 204–218. <https://doi.org/10.1016/j.cnsns.2015.11.012>
- Zubeldia, E. H., de S. M. Ozelim, L. C., Cavalcante, A. L. B., & Crestana, S. (2016). Cellular automata and x-ray micro-computed tomography images for generating artificial porous media. *International Journal of Geomechanics*, 16(2), 04015057. [https://doi.org/10.1061/\(ASCE\)GM.1943-5622.0000527](https://doi.org/10.1061/(ASCE)GM.1943-5622.0000527)
- de S. M. Ozelim, L. C., de Carvalho, J. C., Cavalcante, A. L. B., da Silva, J. P., & Muñetón, C. M. G. (2015). Novel approach to consolidation theory of structured and collapsible soils. *International Journal of Geomechanics*, 15(4), 04014064. [https://doi.org/10.1061/\(ASCE\)GM.1943-5622.0000409](https://doi.org/10.1061/(ASCE)GM.1943-5622.0000409)
- de Sena Monteiro Ozelim, L. C., Cavalcante, A. L. B., de Assis, A. P., & Ribeiro, L. F. M. (2015). Analytical slope stability analysis based on statistical characterization of soil primary properties. *International Journal of Geomechanics*, 15(2), 06014018. [https://doi.org/10.1061/\(ASCE\)GM.1943-5622.0000382](https://doi.org/10.1061/(ASCE)GM.1943-5622.0000382)
- Domingues, V. R., & Ozelim, L. C. S. M. (2015). A brief study about nonparametric adherence tests. *International Journal of Mathematical and Computational Sciences*, 9(11), 699–702. <https://doi.org/10.5281/zenodo.1110718>
- Otiniano, C., Rathie, P., & Ozelim, L. (2015). On the identifiability of finite mixture of skew-normal and skew-t distributions. *Statistics & Probability Letters*, 106, 103–108. <https://doi.org/10.1016/j.spl.2015.07.015>
- de Moura, I. L. B., de Sena Monteiro Ozelim, L. C., & Soares, F. A. (2014). Low cost surface electromyographic signal amplifier based on arduino microcontroller. *International Journal of Electrical and Information Engineering*, 8(2), 303–307. <https://doi.org/10.5281/zenodo.1091020>
- de S. M. Ozelim, L. C., & Cavalcante, A. L. B. (2014). Closure to 'integral and closed-form analytical solutions to the transport contaminant equation considering 3d advection and dispersion' by luan carlos de s. m. ozelim and andré luís brasil cavalcante. *International Journal of Geomechanics*, 14(5), 07014002. [https://doi.org/10.1061/\(ASCE\)GM.1943-5622.0000424](https://doi.org/10.1061/(ASCE)GM.1943-5622.0000424)
- Rathie, P. N., Rathie, A. K., & Ozelim, L. C. d. S. M. (2014). The Product and The Ratio of alpha-mu Random Variables and Outage, Delay-Limited and Ergodic Capacities Analysis. *Physical Review & Research International*, 4(1), 100–108. <https://doi.org/10.5281/zenodo.3247055>
- Swamee, P. K., Rathie, P. N., de S.M. Ozelim, L. C., & Cavalcante, A. L. (2014a). Recent advances on solving the three-parameter infiltration equation. *Journal of Hydrology*, 509, 188–192. <https://doi.org/10.1016/j.jhydrol.2013.11.032>

- Swamee, P. K., Rathie, P. N., de S.M. Ozelim, L. C., & Cavalcante, A. L. (2014b). Reply to comments on 'recent advances on solving the three-parameter infiltration equation' [j. hydrol. 509 (2014) 188–192]. *Journal of Hydrology*, 517, 1164–1165. <https://doi.org/10.1016/j.jhydrol.2014.05.071>
- Cavalcante, A. L. B., Ozelim, L. C. d. S. M., Swamee, P. K., & Rathie, P. N. (2013). Explicit Numerical Iterative Methods Applied to the Three-Parameter Infiltration Equations. *Soils and Rocks*, 36(1), 129–133. <https://doi.org/10.5281/zenodo.3247057>
- de S. M. Ozelim, L. C., & Cavalcante, A. L. B. (2013a). Integral and closed-form analytical solutions to the transport contaminant equation considering 3d advection and dispersion. *International Journal of Geomechanics*, 13(5), 686–691. [https://doi.org/10.1061/\(ASCE\)GM.1943-5622.0000245](https://doi.org/10.1061/(ASCE)GM.1943-5622.0000245)
- de S. M. Ozelim, L. C., & Cavalcante, A. L. B. (2013b). On the iota-delta function: Mathematical representation of two-dimensional cellular automata. *Complex Systems*, 22(4), 405–422. <https://doi.org/10.25088/ComplexSystems.22.4.405>
- de S. M. Ozelim, L. C., Cavalcante, A. L. B., & de F. Borges, L. P. (2013). Continuum versus discrete: A physically interpretable general rule for cellular automata by means of modular arithmetic. *Complex Systems*, 22(1), 75–99. <https://doi.org/10.25088/ComplexSystems.22.1.75>
- Rathie, P. N., Rathie, A. K., & Ozelim, L. C. d. S. M. (2013). On the Distribution of the Product and the Sum of Generalized Shifted Gamma Random Variables. *Mathematica Aeterna*, 3(6), 421–432. <https://doi.org/10.5281/zenodo.3247043>
- Rathie, P. N., Swamee, P. K., & Ozelim, L. C. d. S. M. (2013). Solution of Nonlinear Equations in Science through Lagrange's Inversion Theorem. *Applied Mathematics and Physics*, 1(4), 120–125. <https://doi.org/10.5281/zenodo.3247059>
- de S. M. Ozelim, L. C., Cavalcante, A. L. B., & de F. Borges, L. P. (2012). On the iota-delta function: Universality in cellular automata's representation. *Complex Systems*, 21(4), 283–296. <https://doi.org/10.25088/ComplexSystems.21.4.283>
- Rathie, P. N., & de S.M. Ozelim, L. C. (2012). General solutions to certain real degree equations and their applications. *Advanced Studies in Contemporary Mathematics (Kyungshang)*, 22, 325–341. <http://www.jangjeon.or.kr/etc/view.html?id=816>
- Rathie, P. N., Swamee, P. K., Cavalcante, A. L. B., & de S. M. Ozelim, L. C. (2012). Lagrange's inversion theorem and infiltration. *International Journal of Mathematical and Computational Sciences*, 6(7), 713–718. <https://doi.org/10.5281/zenodo.1072714>
- Swamee, P. K., Rathie, P. N., & de S.M. Ozelim, L. C. (2012). Explicit equations for infiltration. *Journal of Hydrology*, 426–427, 151–153. <https://doi.org/10.1016/j.jhydrol.2012.01.020>
- Swamee, P. K., Rathie, P. N., & Ozelim, L. C. D. S. M. (2011). Analytical solutions for alternate depths. *ISH Journal of Hydraulic Engineering*, 17(1), 34–42. <https://doi.org/10.1080/09715010.2011.10515030>
- Swamee, P. K., Rathie, P. N., & Ozelim, L. C. d. S. M. (2011). Application of Analytical and Numerical Methods to the Sequent Depths Problem in Civil Engineering. *AUSTRALIAN JOURNAL OF BASIC AND APPLIED SCIENCES*, 5(1), 38–47. <https://doi.org/10.5281/zenodo.3247039>