Paulo Sérgio Lima de Oliveira Júnior

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Education

2017 - present Physics Degree
Fluminense Federal University, Niteroi, RJ, Brazil
Expected Graduation: Dec 2020

Short Bio

Paulo Oliveira Júnior is an undergraduate research assistant in Instrumentation and Computational Simulation Laboratory (LISComp) and an undergraduate student at Federal Fluminense University, expecting to graduate in December 2020. Paulo Oliveira Júnior is member of the Brazilian Physical Society and the Brazilian Geophysical Society. He has experience in Physics and Geophysics, focusing on Statistical Physics, Complex Networks, Complex Systems, Self-organized Systems, Earthquakes, with programming skills in C, Python, as well as in manipulation of software for complex networks, as Gephi.

Languages

Portuguese (native), English.

Research Experience

2015 - present Undergraduate research assistant. Development of computational codes for simulations of seismic events. Instrumentation and Computational Simulation Laboratory (LISComp). Federal Institute of Education, Science and Technology of Rio de Janeiro (IFRJ).

Honors and Awards

2019 Awarded First Place in category Oral Presentation, XII Jornada Científica do IFRJ – CPar, Federal Institute of Education, Science and Technology of Rio de Janeiro, RJ, Brazil.

2019 Best Poster Award, X Brazilian Meeting on Simulational, UFMG/UFOP, MG, Brazil.

2018 Awarded First Place in category Poster Presentation, XI Jornada Científica do IFRJ – CPar, Federal Institute of Education, Science and Technology of Rio de Janeiro, RJ, Brazil.

2017 Awarded First Place in category Poster Presentation: Undergraduate, Escola de Física da UFF 2017, Fluminense Federal University, RJ, Brazil.

Professional Societies

2015 - present Brazilian Physical Society Member

2015 - present Brazilian Geophysical Society Member

Lines of Research

1. Complex Networks in Earthquakes
2. Complex Systems Studies in Earthquakes Networks
3. Statistical Physics Applied to the Crime Dynamics
4. Statistical Physics Applied to Seismology

Publications and Preprints

1. FERREIRA, D. S.; RIBEIRO, J.; **OLIVEIRA, P. S. L.**; PIMENTA, A. R.; FREITAS, R. P. & PAPA, A. R. Long-range correlation studies in deep earthquakes global series. arXiv preprint arXiv:2004.05674, 2020.

Talks

Oral Sessions

OLIVEIRA JUNIOR, P. S. L.; CONCEICAO, J. R. S.; FERREIRA, D. S. R.; PAPA, A. R. R.; MENEZES, R. Towards Evidence of Long-Range Correlations in Shallow Seismic Activities. In: NetSciX 2019, 2019, Santiago – Chile. **NetSciX 2019.**

Poster Sessions

1. **OLIVEIRA JUNIOR, P. S. L.**; CONCEICAO, J. R. S.; FERREIRA, D. S. R. Towards Evidence of Long-Range Correlations in Shallow Seismic Activity. In: X Brazilian Meeting on Simulational, 2019, Ouro Preto, MG - Brazil. **X BMSP.**

2. **OLIVEIRA JUNIOR, P. S. L.**; CONCEICAO, J. R. S.; FERREIRA, D. S. R.; PAPA, A. R. R.; MENEZES, R. On the Agreement Between Small-World-Like OFC Model and Real Earthquakes from Different Regions. In: NetSciX 2019, 2019, Santiago – Chile. **NetSciX 2019.**

3. **OLIVEIRA JUNIOR, P. S. L.**; CONCEICAO, J. R. S.; NEVES, O. A. M.; MACHADO, B. A.; FERREIRA, D. S. R. Introdução de Características de Mundo Pequeno no Modelo Olami-Feder-Christensen. In: Escola de Física da UFF 2017, 2017, Niteroi, RJ - Brazil. **Escola de Física da UFF 2017.**

4. **OLIVEIRA JUNIOR, P. S. L.**; CONCEICAO, J. R. S.; NEVES, O. A. M.; MACHADO, B. A.; FERREIRA, D. S. R. On the Agreement Between Small-World-Like OFC Model and Real Earthquakes from Different Regions. In: National Meeting of Statistical Physics, 2017, Ilhéus, BA - Brazil. **ENFE 2017**.

5. **OLIVEIRA JUNIOR, P. S. L.**; CONCEICAO, J. R. S.; NEVES, O. A. M.; MACHADO, B. A.; FERREIRA, D. S. R Small-World Effects in Worldwide Seismic Events. In: Physics Meeting - 2016, 2016, Natal, RN - Brazil. **Physics Meeting – 2016.**

6. **OLIVEIRA JUNIOR, P. S. L.**; CONCEICAO, J. R. S.; NEVES, O. A. M.; MACHADO, B. A.; FERREIRA, D. S. R Complex Features in a Network of Worldwide Seismic Events. In: National Meeting of Statistical Physics, 2015, Vitória, ES - Brazil. **ENFE 2015**.

Other Skills Training

2020 Deep Learning with Python from A to Z, Udemy.
Attended an online course with a total of 20,5 hours in theoretical and practical study about the artificial neural networks, convolutional neural networks, recurrent neural networks, self-organizing maps, boltzmann machines, auto encoders and generative adversarial networks.

2020 Machine Learning and Data Science with Python from A to Z, Udemy.
Attended an online course with a total of 30 hours in theoretical and practical study about the main Machine Learning algorithms.

Reference List

Douglas Ferreira
Instrumentation and Computational Simulation Laboratory – LISComp
Federal Institute of Education, Science and Technology of Rio de Janeiro
Rua Sebastião Lacerda, s/nº
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