

CONTACT
INFORMATION

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Citizenship: Bolivian

Date of Birth: 19/11/1991

Gender: Male

RESEARCH
INTERESTS

Chaos and Dynamical Systems, acting mainly on the following themes: diffusion in chaotic systems, nonlinear dynamics, dynamical systems, closed and open systems, time series analysis, discrete maps, chaotic dynamics, conservative and dissipative systems, time-dependent systems, Fermi acceleration, billiards, kicked systems, chaotic and periodic attractors, bifurcations.

FORMAL
EDUCATION**03/2017-03/2021** - PhD in PhysicsThesis Topic: *Study of entropy behaviour in billiard systems.*

Supervisors: Professor Dr. Edson Denis Leonel, Professor Dr. Iberê Luiz Caldas

Area of Study: Nonlinear Dynamics, Chaos.

Scholarships: Conselho Nacional de Desenvolvimento Científico e Tecnológico CNPq Institute of Physics - University of São Paulo, São Paulo - Brasil

03/2015-02/2017 - Master's in PhysicsThesis Topic: *Statistical investigation and thermal properties for a 1-D impact system with dissipation.*

Supervisor: Professor Dr. Edson Denis Leonel

Area of Study: Nonlinear Dynamics and Chaos.

Scholarships: Fundação Capes Ministério da Educação Brazil-CAPES DS State University of São Paulo - Rio Claro-SP - Brazil.

02/2004-12/2007 - Graduation: Bachelor in PhysicsThesis Topic: *The greatest Lyapunov Exponent in the Special Theory of Relativity: The Rössler case.*

Supervisors: Professor Lic. Marco A. Viscarra, Msc. Abraham C. Torrico.

Universidad Mayor de San Simon - Cochabamba - Bolivia.

LANGUAGES

- **Portuguese:** Comprehends Well, Speaks Well, Writes Reasonably, Reads Well.
- **English:** Comprehends Well, Speaks Well, Writes Well, Reads Well.
- **Spanish:** Comprehends Well, Speaks Well, Writes Well, Reads Well.

SKILLS

- **Programming:** Fortran, Python, Julia.
- **Software:** Wolfram's Mathematica.

PUBLICATION LIST

1. Matheus S. Palmero, Gabriel Díaz I., Iberê L. Caldas, Igor M. Sokolov, *Sub-diffusive behaviour in the Standard Map*. **The European Physical Journal Special Topics**, p. 1-9 2021.
2. Gabriel Díaz I., Matheus S. Palmero, Iberê Luiz Caldas, Edson D. Leonel, *Controlling Escape in the Standard Map*. arXiv preprint arXiv:2009.11095, 2020.
3. Matheus S. Palmero, Gabriel Díaz I., Peter V. E. McClintock, Edson D. Leonel, *Diffusion phenomena in a mixed phase space*. **Chaos: An Interdisciplinary Journal of Nonlinear Science**, vol. 30. p. 013108, 2020.
4. Gabriel Díaz I., Matheus S. Palmero, Iberê Luiz Caldas, Edson D. Leonel, *Diffusion entropy analysis in billiard systems*. **Physical Review E**, vol. 100, p. 042207, 2019.

5. André L. P., Matheus S. Palmero, Gabriel Díaz I., Carl P. Dettmann, Iberê L. Caldas, Edson D. Leonel, *Investigation of stickiness influence in the anomalous transport and diffusion for a non-dissipative Fermi-Ulam model*. **Communications in Nonlinear Science and Numerical Simulation**, vol. 55, p. 225-236, 2018.
6. Gabriel Díaz I., Makoto Yoshida, Edson D. Leonel, *A Monte Carlo approach for the bouncer model*. **Physics Letters A**, vol. 381, p. 3636-3640, 2017.
7. Gabriel Díaz I. André L. P. Livorati, Edson D. Leonel, *Statistical investigation and thermal properties for a 1-D impact system with dissipation*. **Physics Letters A**, vol. 380, p. 1830-1838, 2016.

CONFERENCES, WORKSHOPS AND MEETING

1. Hands-On Research in Complex Systems School, ICTP - Trieste - Italy. (2018)
2. International Conference on Transport and Diffusion in Dynamical Systems, São Carlos - São Paulo, Brazil. (2016).

REFEREES

- **Prof. Dr. Edson Denis Leonel**
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