

# Juan Pablo Ibieta Jimenez

Rua do Matão, Travessa R, 187 – Edifício Ala Central - 331  
CEP 05508-090 -São Paulo-SP

☎ (+55)11 948400420 • ✉ pibieta@if.usp.br

## Summary

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- Mathematical Physics Ph. D. student at the University of Sao Paulo,
- Passionate about mathematics, science, philosophy and music with strong interpersonal communication skills;
- Fluency in English, Spanish and Portuguese and Good understanding in French.

## Academical Experience

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- **Junior Researcher / Teaching Assistant** **São Paulo**  
*Universidade de São Paulo, Math. Physics Department, Brazil* *August 2012 – Present*
  - Actively collaborated with the Topological Quantum Field Theory lead by Prof. Dr. Paulo Teotônio Sobrinho.
  - Taught various Physics and Mathematics courses as teaching assistant to engineering and science students at the undergraduate and graduate levels.
- **Junior Researcher / Teaching Assistant** **La Paz**  
*Universidad Mayor de San Andrés, Physics Department, Bolivia* *February 2005 – August 2010*
  - "Cum Laude" graduation for a small research project on Loop Quantum Gravity.
  - Actively collaborated with the Complex Systems Group.
  - Taught Physics and Mathematics to engineering and science students at the undergraduate and graduate levels.

## Selected papers

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- **Deformed quantum double realization of the toric code and beyond.** Padmanabhan, P., Ibieta-Jimenez, J. P., Ferreira, M. J. B., and Teotônio-Sobrinho, P. (2016). *Annals of Physics*, 372, 238-259. <https://arxiv.org/abs/1408.2501>
- **A Recipe for Constructing Frustration-Free Hamiltonians with Gauge and Matter Fields in One and Two Dimensions;** Ferreira, M. J. B., Ibieta-Jimenez, J. P., Padmanabhan P. and Teotônio-Sobrinho P.; *Journal of Physics A: Mathematical and Theoretical* 48.48 (2015): 485206, <https://arxiv.org/abs/1503.07601>

## Education

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- **University of Sao Paulo (USP)** **São Paulo, Brazil**  
*Graduate, Ph. D. in Physics* *May 2015 – Present*  
Mathematical Physics Department, Physics Institute

- **University of Sao Paulo (USP)**  
*Graduate, M.Sc. in Physics*  
Mathematical Physics Department, Physics Institute
- **Universidad Mayor de San Andrés (UMSA)**  
*Undergraduate, Bachelor in Physics*  
Physics Department

**São Paulo, Brazil**  
*August 2012 – April 2015*

**La Paz, Bolivia**  
*February 2004 – July 2010*

## Technical and Personal skills

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- **Computer / Informatics:**
  - Proficiency with TeX and LaTeX text processors, as well as with programming languages, including C, C++, Python, Mathematica and Matlab;
  - Proficiency in vector graphic design for illustrating academic texts.
- **Personal / Communication Skills:**
  - Proven skills in innovative problem solving, theoretical research and abstract thinking;
  - Ability to integrate and lead groups in different contexts and tasks;
  - Professional communication skills including fluency in English, Spanish and Portuguese;

## Interests and extra-curricular activity

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- **Music**
  - Music passionate and collector.
  - Amateur electronic music producer.
- **Sports**
  - Currently practicing Running and Calisthenics.
  - Practiced and played Volleyball for the High-school.
  - Practiced and played Tennis for almost 10 years.
- **Gastronomics**
  - Very passionate about cooking and experiencing new food.
  - Hot pepper appreciator.