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**CURRENT
POSITION**

Bethe Center for Theoretical Physics, University of Bonn
Since December 2013 I am a PhD student and teaching assistant in the group of Prof. Hartmut Monien.

**RESEARCH
INTEREST**

Interplay of disorder and interactions in quantum systems.
Frustrated magnetism.
Strongly correlated electronic systems.
Computational methods in condensed matter.

EDUCATION

Master of Science in Physics (2011-2013)
University of Bonn, Bonn, Germany.
Thesis: “Investigation of the doped kagomé antiferromagnet”.
1st Examiner: Prof. Hartmut Monien.
2nd Examiner: Prof. Corinna Kollath.

Licenciate in Physics (5-year Bachelor degree) (2005-2010)
Universidad Simón Bolívar, Caracas, Venezuela.
Thesis: “Geometrical Interpretation of Quantum Entanglement in Open Systems”.
1st Examiner: Prof. Esteban Isasi.
2nd Examiner: Prof. Celso Ladera.

**ACADEMIC
EXPERIENCE**

Teaching Assistant (October 2012- Present):
Department of Physics, University of Bonn.
Lectures tutored: Computational methods in theoretical condensed matter, Advanced theoretical condensed matter, Advanced quantum mechanics.

Graduate research (October 2012-November 2013):
University of Bonn (Master thesis).
We studied the ground state properties of the $t - J$ model on the kagomé lattice using the *Schwinger-Boson slave-fermion* representation of the electronic field operators at the mean-field level.

Undergraduate research (August 2009-July 2011):
Simón Bolívar University (Bachelor thesis).
We studied the dynamics of the entanglement of a two-Qbit system coupled to thermal baths from a geometric point of view, by means of the equivalence class that provides the $SL(2, \mathbb{C})$ symmetry of the space of positive matrices.

Undergraduate research (January 2008-July 2011):
Department of Physics, Simón Bolívar University.
Supervisor: Prof. Celso Ladera.
“Experiment for the measurement of the flux of muons at different heights above sea level”.

Undergraduate research (October 2008-July 2009):
Department of Physics, Simón Bolívar University.
Supervisor: Prof. Ricardo Castell.
“Construction of a Dye laser wavelength variable”.

SHORT TALKS *University of Bonn* (May 10, 2012).
Supervisor: Prof. Hans Kroha.
“Seminar on the mean-field theory of the Mott-insulator superfluid transition”.

Simón Bolívar University (May 24, 2011).
Supervisor: Prof. Enrique Castro.
“On quantum teleportation”.

LANGUAGES Spanish (native language)
English (fluent)
German (basic knowledge)

REFERENCES *University of Bonn.*
Prof. Hartmut Monien.
Contact: monien@th.physik.uni-bonn.de

Simón Bolívar University.
Prof. Esteban Isasi.
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