# Ivan Agullo

# Department of Physics and Astronomy Louisiana State University

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#### **EMPLOYMENT**

• Louisiana State University

Since Aug. 2013

Assistant Professor of Physics.

 $\bullet$  Cambridge University, DAMTP

Aug. 2012 to Aug. 2013

Marie Curie Postdoctoral Fellow. Supervisor Prof. Paul Shellard.

• Penn State University

Oct. 2010 to Aug. 2012

Postdoctoral Fellow. Supervisor Prof. Abhay Ashtekar.

• University of Wisconsin-Milwaukee

Apr. 2009 to Oct. 2010

Postdoctoral Fellow. Supervisor Prof. Leonard Parker.

## **EDUCATION**

• PhD in Physics, University of Valencia, Spain

July 2009

PhD advisor: Prof. Jose Navarro-Salas.

PhD thesis title: Quantum black holes, inflationary cosmology, and the Planck scale.

• Advanced Studies Diploma in Theoretical Physics

July 2006

University of Valencia, Spain

Master thesis title: Black holes, short distances and TeV gravity.

• Degree in Physics, University of Valencia, Spain

July 2004

#### HONORS AND AWARDS

• Marie Curie European Postdoctoral Fellowship 2012

Project: Non-Gaussianity in the observable universe and the origin of cosmic inhomogeneities.

• Eisntein-Galilei Award 2012

International award offered annually by the Institute for Theoretical and Advance Mathematics Einstein-Galilei, Italy.

• First Award in the Gravity Research Foundation essay competition 2011 Awarded essay: I. Agullo and L. Parker, "Stimulated creation of quanta during inflation and the observable universe."

## • Young Researcher in Theoretical Physics Award 2011

Award offered annually by the Royal Spanish Physical Society for researchers under 35 years old.

# • Extraordinary PhD Prize 2010

Award offered annually by the University of Valencia for outstanding PhD thesis.

- Fourth Award in the Gravity Research Foundation essay competition 2009
- FPU Fellowship 2005

Offered by the Spanish Ministry of Science to completely fund a 4-years PhD in theoretical physics.

- Summer Student Fellowship at CERN 2004
- Introduction to Research Fellowship, CSIC (Spain) 2003
- Undergraduate collaborating-fellow of the Department of Theoretical Physics 2003

### FUNDING SUPPORT

Principal investigator of the NSF grant PHY-1403943 with title *The early universe as a window to quantum gravity.* 

Principal investigator of the NSF grant PHY-1503417 with title Travel support for US researchers attending the 14th Marcel Grossmann Meeting.

## **TEACHING**

- Quantum field theory in curved spacetimes (3 credits): Spring 2016.
- Electricity and Magnetism (6 credits): Fall 2015 and sprig 2016.
- Introduction to Cosmology for graduates (3 credits): Spring 2015.
- Classical mechanics for graduates (3 credits): Fall 2013, Fall 2014.

## EXTENDED PERIODS IN OTHER INSTITUTIONS

• University of Chicago, Chicago, IL, U.S.A.

Year: 2008. Duration: 2 months (July-September).

Supervisor: Prof. Robert M. Wald.

• University of Maryland, College Park, MD, U.S.A.

Year: 2007. Duration: 3 months (September-November).

Supervisor: Prof. Ted Jacobson.

• University of Chicago, Chicago, IL, U.S.A.

Year: 2006. Duration: 3 months (July-September).

Supervisor: Prof. Robert M. Wald.

• CERN, Geneve, Switzerland.

Year: 2004. Duration: 3 months.

#### SELECTED RECENT INVITED TALKS

• Colloquium Wake Forest University, September 2015, Wiston-Salem, US, Title: *The observable universe, gravity and the quantum.* 

• Invited talk at Quantum Vacuum and Gravitation, July 2015, Mainz Institute for Theoretical Physics, Mainz, Germany,

Title: Loop quantum cosmology and the CMB.

• Invited talk at General Relativity & Gravitation: a Centennial Perspective, June 2015, Penn State, Pennsylvania, US,

Title: Phenomenological consequences of loop quantum cosmology.

• Invited talk at Erlangen Workshop on Cosmology and Quantum Gravity, January 2015, Erlangen, Germany,

Title: Phenomenological consequences of loop quantum cosmology.

• Invited seminar Simon Fraser University, January 2014, Vancouver, Canada, Title: *Primordial magnetic fields and the conformal anomaly*.

• Colloquium University of Wisconsin-Milwaukee, January 2014, Milwaukee, USA. Title: Quantum Gravity and the observable universe.

• Colloquium Florida Atlantic University, February 2014, Boca Raton, USA. Title: Quantum Gravity and the observable universe.

• Invited plenary talk, Loops'13 conference, Perimeter Institute, July 2013, Canada. Title: A quantum gravity extension of the inflationary scenario.

• Invited talk, Quantum Gravity and Fundamental Cosmology Workshop, March 2013, Postdam, Germany.

Title: Observational effects from pre-inflationary physics and loop quantum cosmology.

• Invited seminar, Imperial College of London, January 2013, London, UK. Title: A quantum gravity extension of the inflationary scenario.

• Invited contribution to the 13th Marcel Grossmann meeting, July 2012, Stockholm, Sweeden.

Title: A quantum gravity extension of the inflationary scenario.

• Invited contribution to the American Physical Society Meeting, April 2012, Atlanta, USA.

Title: Beyond the standard inflationary paradigm.

• Colloquium University of Wisconsin-Milwaukee, March 2011, Milwaukee, USA. Title: *Gravity, the quantum, and the observable universe.*