



Nadia Bolis

Curriculum Vitae

Education

- 2006–2010 **Bachelors in Physics, Japanese Minor**, *Bryn Mawr College*, PA.
Honors in Physics, Magna Cum Laude.
- Spring 2009 **Keio University**, *Study Abroad*, Tokyo, Japan.
- 2011–2012 **Masters in Physics**, *University of California Davis*, CA.
- 2011–2017 **PhD in Physics**, *University of California Davis*, Advisor: *Dr. Andreas Albrecht*.
Research Interests: *Theoretical Cosmology, Inflation, Quantum Entanglement, Modified Gravity, Dark Energy, Dark Matter*.

Graduate PhD Thesis

- Title *Observational Consequences of Entanglement during Inflation*.
- Committee *Chair: Dr. Andreas Albrecht, Dr. Nemanja Kaloper, Dr. Lloyd Knox*.

Postdoc

- 2017-2019 **Central European Institute for Cosmology and Fundamental Physics (CEICO)**, *Czech Academy of Sciences*, Prague, Czech Republic.
Supervisor: Dr. Constantinos Skordis.

Research

Publications

1. **Cosmological Consequences of Initial State Entanglement**, Andreas Albrecht, Nadia Bolis, R. Holman, *JHEP* 1411 (2014) 093, [arXiv:1408.6859](#).
2. **Modifications to Cosmological Power Spectra from Scalar-Tensor Entanglement and their Observational Consequences**, Nadia Bolis, Andreas Albrecht, R. Holman, *JCAP* 1612 (2016) 12, [arXiv:1605.01008](#).
3. **Probing extra dimensions with gravitational and electromagnetic signals from compact mergers**, Luca Visinelli, Nadia Bolis, Sunny Vagnozzi, (Nov. 2017), [arXiv:1711.06628](#).

Invited Talks

- Sep. 2016 **Observational Consequences of Scalar-Tensor Entanglement During Inflation**, (*Conference Talk*), Conference: *VARCOSMOFUN'16*, Szczecin, Poland.
Invited by: Dr. Sugumi Kanno.
- Oct. 2017 **Un-entangling the Universe**, (*Colloquium Talk*), Oskar Klein Centre Colloquium, Oskar Klein Centre, Stockholm, Sweden.
Invited by: Dr. Katherine Freese.
- Oct. 2017 **Entanglement and Non-Gaussianity**, (*Seminar Talk*), YITP Cosmology Seminar, Yukawa Institute for Theoretical Physics, Kyoto, Japan.
Invited by: Dr. Antonio De Felice.
- Nov. 2017 **Entanglement and Non-Gaussianity**, (*Seminar Talk*), Kobe University Cosmology Seminar, Kobe University, Kobe, Japan.
Invited by: Dr. Jiro Soda.
- Dec. 2017 **Entanglement and Non-Gaussianity**, (*SeminarTalk*), University of the Basque Country Seminar, University of the Basque Country, Bilbao, Spain.
Invited by: Dr. Sugumi Kanno.
- Jan. 2018 **Entanglement during Inflation and Signals of Non-Gaussianity**, (*Seminar Talk*), University of California Davis Cosmology Seminar, UC Davis, Davis, USA.
Invited by: Dr. Andreas Albrecht.

Conferences and Workshops

Presentations

- Sep. 2015 **Effects of Entanglement during Inflation on Cosmological Observable**, (*Conference Talk*), Conference: *Cosmo Cruise 2015*, Barcelona, Spain.
- June. 2016 **Observational Consequences of Scalar-Tensor Entanglement During Inflation**, (*Poster*), Summer School: *ICTP Cosmology Summer School*, Trieste, Italy.
- Aug. 2016 **Observational Consequences of Scalar-Tensor Entanglement During Inflation**, (*Conference Talk*), Conference: *COSMO'16*, Ann Arbor, MI, USA.
- Sep. 2016 **Observational Consequences of Scalar-Tensor Entanglement During Inflation**, (*Invited Talk*), Conference: *VARCOSMOFUN'16*, Szczecin, Poland.

Other Conference and Workshop Participation

- May. 2013 **Mining the Cosmic Frontier in the Planck Era Workshop**, *University of California Davis, CA*.
- May. 2013 **Fundamental Questions in Cosmology Workshop**, *University of California Davis, CA*.
- June. 2016 **ICTP Cosmology Summer School**, Trieste, Italy.
- Dec. 2016 **Recent Developments in Fields, Strings, and Gravity Conference**, *University of California Davis, CA*.
- March 2017 **New Horizons in Inflationary Cosmology**, *Stanford University, CA*.

Selected Fellowships and Honors

- Spring 2010 **Graduated Magna Cum Laude**, *Bryn Mawr College*.
- Fall 2012 **Honorable Mention for NSF Graduate Student Fellowship**, *University of California Davis*.

2013-2015 **Awarded the GANN Fellowship**, *University of California Davis*.

Skills

Computer Language

- Python
- Mathematica

Languages

- English (Fluent/Bilingual)
- Italian (Fluent/ Bilingual)
- Japanese (Moderate Proficiency)