

Diana Battefeld, ESR

Helsinki Institute of Physics

Background

BsC Physics and chemistry (USF)

MsC Physics (Brown University)

PhD Theoretical Physics (University of Helsinki)

Research Interests

Non-Gaussianities: tri-spectrum; inflation: multi-field, monodromy, staggered; Reheating: Cantor, tachyonic, multiple fields.

Collaborators

Shinsuke Kawai (HIP)

Anne Davis (DAMTP)

John Giblin (Yale/PI)

Daniel Wesley (DAMTP)

T. Battefeld (Princeton)

Mark Wyman (PI)

Richard Easter (Yale)

David Langlois (APC)

Travels

Cargese Summer School, June-July 2008

Franco-Japanese Conference, June 2008

COSMO 08, August 2008

Visiting Scientist: Princeton, Yale, APC

Published Projects

[1] *Magnetogenesis via rotating cosmic string loops*, arXiv: 07082901 (2007)

[2] *Non-Gaussianities in N-flation*, arXiv:hep-th/0703012 (2007)

[3] *Preheating after multi-field inflation*, arXiv:0903.0321 (2008)

[4] *Staggered multi-field inflation*, arXiv: 0806.1953 (2008)

[5] PhD Thesis, ISBN 978-952-10-3718-4 (2008)

Current Projects

Full numerical study of preheating after multi-field inflation

Staggered multi-field inflation: gravity waves, hilltop inflation

Trispectrum: exact numerics

Non-Gaussianities from tachyonic preheating

Preheating in monodromy inflation

Non-Gaussianities from DBI