

KEK-CPWS The 4th UTQuest Workshop

B-mode Cosmology

— Intermediate Scale Inflation and Hidden Sector —

19 — 21 February 2015

KEK, Tsukuba, Japan

<http://research.kek.jp/people/hkodama/UTQuestWS4/>

Please register through the above web page immediately!!

Important Deadlines

- Financial Support: January 23, 2015 (post remittance to a domestic bank account only)
- Registration: January 31, 2015
- Abstract Submission: January 31, 2015
- Banquet application: January 31, 2015

Aim

The recent unexpected result of BICEP2 has provoked tremendous interests in high scale inflation models, and lots of new ideas have been proposed within less than a year. This new development, however, rather seems to have made clear how difficult it is to construct a natural high scale model on the basis of a candidate of ultimate theory, such as superstring theory. This circumstance together with the issue on the foreground emission from dust strongly indicates the importance of thorough investigations of intermediate scale models that predict values of the tensor-scalar ratio in the range $0.01 > r > 0.0001$.

In this workshop, we overview the present status of high and intermediate scale inflation models and discuss how to discriminate such models by various near future experiments including CMB B-mode measurements, taking account of the new results by Planck to be published in the form of paper by the end of January 2015. We particularly focus on the relevance of hidden sector physics such as string axions to intermediate scale inflation.

The workshop will consist of invited review talks and contributed talks. Sufficient time will be spared for discussions.

Topics to be discussed

- CMB B-mode observation experiments
- Various sources of B-modes
- Inflation models
- Non-gaussianity
- Moduli problems
- Axions and hidden sector particles/fields
- Cosmological gravitational waves

Invited speakers

- Adrian Lee (POLARBEAR/UC Berkeley)
TBA (Present status of the ground-based CMB experiments)
- Carlo Baccigalupi (Planck/SISSA)
TBA (Foreground subtraction, bispectrum)
- Kazunori Korhi (KEK)
“Large and small field conformal inflation models, including reports of the Planck2014 and the Paris conference”
- Fuminobu Takahashi (Tohoku U.)
TBA (Overview of high and intermediate scale inflation models)
- Xingang Chen (Texas U, Dallas)
TBA (Constraints on inflation models from CMB B-mode and non-gaussianity)
- Michele Cicoli (ICTP)
TBA (String inspired inflation models and moduli problem)
- Masahiro Kawasaki (ICRR)
TBA (Axion constraints on inflation)
- Tatsuo Kobayashi (Hokkaido U)
TBA (Inflation scale and string phenomenology)
- Gary Shiu (Wisconsin U/HKUST)
TBA
- Jiro Soda (Kobe U)
TBA (Inflation models with vector/form fields and observational consequences)
- Kazunori Nakayama (U. Tokyo)
TBA (Probing inflation by GWs)

Registration Fee

The registration fee is 5,000 yen. It will be collected at the registration desk.

Financial Supports

We will be able to support the expenses of the domestic travel and the accommodation in the KEK dormitory for all participants. Note that we can only provide the dormitory-rate-equivalent even if you stay at a hotel, except for invited participants. You can apply for the financial support when you make the online registration. The financial support will be remitted to your domestic bank account after the workshop.

Reception and Banquet

A reception and a banquet will be held on the 1st and 2nd nights, respectively. All participants are invited to the reception party on 2/19 at the salon in front of the Kobayashi Hall.

If you would like to participate in the banquet on 2/20, please apply at the online registration. The banquet fee is 5,000 yen and will be collected at the registration desk. The banquet will be held at a restaurant outside the KEK

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Masashi Hazumi (KEK), Tetsutaro Higaki (KEK), Kunihito Ioka (KEK),
Tatsuo Kobayashi (Hokkaido U.), Hideo Kodama (KEK, Chair), Kazunori Kohri
(KEK), Shun'ya Mizoguchi (KEK), Kazunori Nakayama (U. Tokyo), Jiro Soda
(Kobe U.), Yoske Sumitomo (KEK), Fuminobu Takahashi (Tohoku U.),
Hirotaka Yoshino (KEK)

Sponsor

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