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# 国台学术报告 NAOC COLLOQUIUM

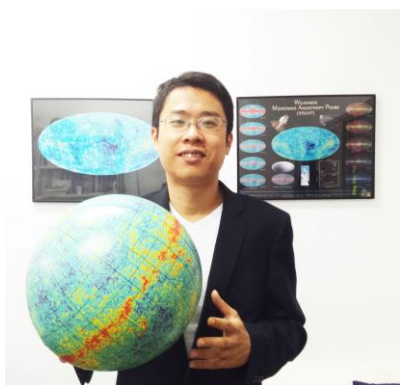
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**Time: Wednesday 2:30 PM, Nov. 23    Location: A601, NAOC**

## Testing General Relativity with CMB and LSS data

**Prof. Bin Hu**

**Astronomy Department, Beijing Normal University**



Prof. Bin Hu got his Ph.D at institute of theoretical physics from CAS in 2011. Then he worked as Post-Doc at Padova University, Italy from 2011 to 2013, at Leiden University, Holland from 2013 to 2015, and at Barcelona University, Spain from 2015 to 2016, respectively. Now he works as the professor at the Astronomy Department in Beijing Normal University. He is mainly working on the theoretical cosmology and its data analysis, including dark energy, modified gravity, CMB

physics, large-scale structure formation, early universe, inflation mechanism, etc.

### **Abstract**

Effective field theory for cosmic acceleration provides a unified parametrization of the perturbation dynamics of the most of the viable single field dark energy and modified gravity models. This algorithm is inspired by the widely used effective field theory approach in particle physics, condensed matter physics, and is based on the unbroken symmetry (spatial diffeomorphism) of the metric theory of gravity. In this talk, I will briefly introduce the construction of the action and discuss the implementation of this approach into the linear Einstein-Boltzmann solver of the gravity-photon/baryon/cold dark matter/neutrino plasma system (EFTCAMB/EFTCosmoMC package). Its effect on several cosmological observables, such as CMB anisotropy, weak lensing, galaxy clustering, will also be discussed. At the last I will briefly report the resulting parameter estimation from Planck satellite.

*All are welcome! Tea, coffee, biscuits will be served at 2:15 PM*