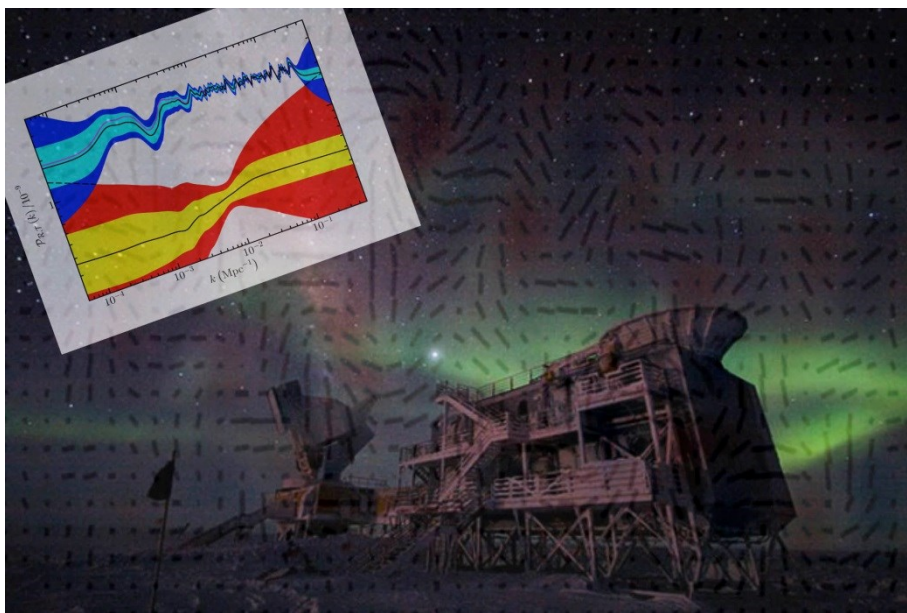


Testing cosmic inflation.

Subir Sarkar (Oxford / Copenhagen)

Tuesday, 06 October 2015, 16:45 h, DESY Auditorium



The detection by the BICEP2 telescope of a “B-mode” polarization signal in the cosmic microwave background was hailed as direct evidence that the early universe underwent a period of inflation. The signal was attributed to inflationary gravitational waves with an amplitude of 20% of the observed scalar density perturbations which have seeded the growth of large-scale structure. However, subsequently the signal was found to more likely be foreground emission from our Galaxy. It is now clear that this ‘smoking gun’ for inflation will be a harder target than was presumed earlier. There is another promising probe however, viz. searches for features in the power spectrum of the scalar perturbations, using both CMB and large-scale structure data. I will review the status of these attempts to experimentally determine how our universe began.

- **Coffee, tea and cookies will be served at 16:30h**
- **After the seminar there is a chance for private discussions with the speaker over wine and pretzels**

