

Primordial Cosmology

Thursday 6 July 2006 14:00 (1h 45m)

The hot big-bang model has changed a lot since its formulation due to both a better theoretical understanding and an increasing quantity of observational data. In this lecture, the hot big-bang model will be described. Its successes will be detailed as well as its problems. One of the most important evolutions lies in the understanding of the structure formation. In particular, the origin of the density perturbation during inflation and their imprint of the cosmic microwave background will be explained. Among the recent developments, the acceleration of the universe is one of the puzzles to be resolved. The origin of these problems and various models to solve it will be presented. We will finish by some highlights on various links between cosmology and high energy physics (such as topological defects, dark matter and others).

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Session Classification: Thursday afternoon