T 1: Hauptvorträge

Zeit: Montag 9:00–10:30 Raum: VMP4 Audimax 1

Hauptvortrag T 1.1 Mo 9:00 VMP4 Audimax 1

Cosmology and the LHC — •Geraldine Servant — Deutsches Elektronen-Synchrotron DESY, Theory group, Notkestrasse 85, D-22607 Hamburg — Institute of Theoretical Physics, Univ. Hamburg, D-22761 Hamburg

I will review implications of electroweak symmetry breaking for cosmology, in particular for baryogenesis. I will also discuss what can and cannot be learnt with the LHC on early universe cosmology.

Hauptvortrag T 1.2 Mo 9:45 VMP4 Audimax 1

The Direct Search for Dark Matter: Status and Perspectives — •Marc Schumann — Albert Einstein Center, University of Bern, Switzerland

There is overwhelming indirect evidence that dark matter exists, however, the dark matter particle has not yet been directly detected in laboratory experiments. In order to be able to identify the rare dark matter interactions with the target nuclei, such instruments have to feature a very low threshold and an extremely low radioactive background. They are therefore installed in underground laboratories to reduce cosmic ray backgrounds. I will review the status of direct dark matter searches and will discuss the perspectives for the future.