T 96: Hauptvorträge 5

Zeit: Donnerstag 11:00–12:30 Raum: RW 1

Hauptvortrag T 96.1 Do 11:00 RW 1 Doppelbetazerfall und Neutrinomassen — •STEFAN SCHÖNERT — Physik Department, Technische Universität München

 Im Vortrag werden die neuesten Ergebnisse zum Doppelbetazerfall und zur Messung der Neutrinomassen vorgestellt.

Hauptvortrag T 96.2 Do 11:45 RW 1 Cosmological results from the Planck satellite — ◆SIMON WHITE — Max Planck Institute for Astrophysics, Garching, Germany

ESA's Planck mission is the third generation satellite to study the Cosmic Microwave Background. It has mapped the full sky at nine fre-

quencies spanning a factor of 30 in wavelength with a resolution and sensitivity superior to those of any previous experiment. Results from the first 15.5 months of the mission have been released in a set of about 30 papers over the last year I will present the maps together with highlights of the cosmological results derived from them. These include: (i) the most precise measurements so far of the parameters describing the content and structure of our Universe, (ii) constraints on the physics driving its very early evolution, (iii) some anomalies which may indicate physics beyond our current standard model, and (iv) maps of the distributions of total mass, of baryonic mass and of star-formation in galaxies throughout the entire visible universe in front of the CMB.