

Heidelberg



University

# The Dark Universe Conference

**Heidelberg, 04th – 07th October 2011**

An International Conference of the  
**Transregional Research Center TRR33**

**"The Dark Universe"**

Bonn-Heidelberg-Munich  
(funded by DFG)

In the standard cosmological model, normal baryonic matter contributes only roughly 5% to the overall density, the rest being in the form of dark matter (23%) and dark energy (72%). Whereas dark matter has already been postulated by Zwicky in 1933, the existence and dominance of dark energy was unexpected and raised fundamental questions as e.g. the range of validity of Einstein's gravity, the role of extra dimensions, the existence of new forces, the nature of vacuum, the relation to the inflationary field and to the particle physics models. The conference will bring together theoreticians and observers from particle physics, cosmology and astrophysics, to present and discuss the latest research results in the fields of dark matter and dark energy, and to indicate new paths for future research.

## Invited Speakers

S. Allen - C. Baccigalupi - M. Baldi - P. Binetruy - S. Borgani  
R. Caldwell - J. M. Cline - E. Copeland - C. De Rham - R. Durrer  
G. Dvali - M. Frandsen - L.J. Hall - T. Hambye - E.W. Kolb - K. Koyama  
M. Kowalski - M. Kunz - O. Lahav - B. Leibundgut - J. Lesgourgues  
A. Macciò - J. March-Russell (TBC) - M. Pietroni - S. Profumo  
C. Skordis - D.N. Spergel - V. Springel - S. Tsujikawa - M. Tytgat  
J.P. Uzan - K. Zurek

**<http://www.thedarkuniverse2011.unitt.de>**

Registration until **September 25, 2011**  
(early registration and abstract submission until July 15, 2011)

