

CERN, Geneva, Switzerland



Scientist in Charge: John Ellis

Staff: Georgi Dvali, Gian Giudice, Christophe Grojean

Fellow: Oleksii Boiarskyi, Alessio Notari, Geraldine Servant,
Sergei Sibiryakov

Ex-members: Syksy Rasanen (left Oct 07)

Research topics: Dark Matter, Leptogenesis, EW phase
transition, Dark Energy, Modif. of gravity, Brane cosmology

J. Ellis, K.A. Olive, C. Savage, *Hadronic Uncertainties in the Elastic Scattering of Supersymmetric Dark Matter*, Phys.Rev.D77:065026,2008.

G. Dvali, S. Solodukhin, *Black Hole Entropy and Gravity Cutoff*, arXiv:0806.3976

G.F. Giudice, L. Mether, A. Riotto, F. Riva, *Supersymmetric Leptogenesis and the Gravitino Bound*, Phys.Lett.B664:21-24,2008.

C. Grojean, G. Servant, *Gravitational Waves from Phase Transitions at the Electroweak Scale and Beyond*, Phys.Rev.D75:043507,2007.

A. Boyarsky, D. Iakuovskyi, O. Ruchayskiy, V. Saychenko, T. Shevchenko, *Constraints on decaying Dark Matter from XMM-Newton observations of M31*, arXiv:0709.2301.

B. Stephon, T. Biswas, A. Notari, D. Vaid, *Local Void vs Dark Energy: Confrontation with WMAP and Type Ia Supernovae*, arXiv:0712.0370

D.S. Gorbunov, S.M. Sibiryakov, *Self-accelerated brane Universe with warped extra dimension*, arXiv:0804.2248

Young Researchers:

- Charalampos Bogdanos 1.11.07 - 29.2.08 (supervisor: I. Antoniadis)
- Nikolaos Harries 1.11.07 - 29.2.08 (supervisor: J. Ellis)
- Lotta Mether 1.1.08 - 30.4.08 (supervisor: A. Riotto)

The scientific environment:

- Seminars (4 regular series in TH + Academic training + Colloquia + PH seminars)
- Cosmo Coffee
- TH Institutes (LHC-Cosmology Interplay, 25 Jun - 10 Aug 2007; BSM Institute: New Physics and the LHC, 13 Aug - 7 Sep 2007; String Phenomenology, 21 Jul - 15 Aug 2008; Black Holes: a Landscape of Theoretical Physics Problems, 25 Aug - 5 Oct 2008)
- ENTApP Visitor Programme and Workshop on DM, 5-9 Mar 2007
- The LHC!!