

PROGRAM OF PARALLEL SESSIONS
DESY Theory Workshop, September 29 – October 2, 2008
“Dark Matter at the Crossroads”

Stand: 1. Oktober 2008

Session Ia: Neutralinos and sneutrinos

Bldg. 2a Room: Sem. 2 — Chair: C. Papineau

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| 14:30–14:50 | I.1 Constraints on neutralino masses and mixings from cosmology and collider physics
<i>Ulrich Langenfeld</i> |
| 14:55–15:15 | I.2 Neutralino DM in an SO(10) model with intermediate scale symmetry breaking
<i>Ju Min Kim</i> |
| 15:20–15:40 | I.3 Neutralino annihilation to quarks with SUSY-QCD corrections
<i>Karol Kovarik</i> |
| 15:45–16:05 | I.4 Neutralino DM and collider signals with and without universality
<i>Eun-Kyung Park</i> |
| 16:10–16:30 | I.5 Thermal right-handed sneutrino DM in the F-D term model of hybrid inflation
<i>Frank Deppisch</i> |
| 16:35–17:00 | COFFEE BREAK |

Session Ib: (N)LSP in the Visible Sector II

Bldg. 2a Room: Sem. 2 — Chair: L. Covi

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| 17:00–17:20 | I.6 The primordial abundance of stau NLSPs
<i>Martin Winkler</i> |
| 17:25–17:45 | I.7 SUSY DM with a long-lived stau NLSP
<i>Josef Pradler</i> |
| 17:50–18:10 | I.8 Sneutrino LSPs in R-parity violating minimal supergravity models
<i>Siba Prasad Das</i> |
| 18:15–18:35 | I.9 Small extra dimensions and enhanced symmetries in orbifold compactifications
<i>Kai Schmidt-Hoberg</i> |
| 18:40 | ADJOURN |

Session IIa: The Hidden Sector

Bldg. 1b Room: Sem. 4a — Chair: F. Steffen

- 14:30–14:50 **II.1 SUSY DM, catalyzed BBN, and heavy moduli in mSUGRA with gravitino LSP and stau NLSP**
Grigoris Panotopoulos
- 14:55–15:15 **II.2 Gravitino DM with broken R parity**
Florian Staub
- 15:20–15:40 **II.3 Neutrino signals from gravitino DM with broken R parity**
Michael Greife
- 15:45–16:05 **II.4 Indirect signatures for gravitino DM**
David Tran
- 16:10–16:30 **II.5 Viability of a hidden U(1) gaugino as DM**
Christoph Weniger
- 16:35–17:00 **COFFEE BREAK**

Session IIb: Inflation

Bldg. 1b Room: Sem. 4a — Chair: M. Postma

- 17:00–17:20 **II.6 Massive hidden photons as lukewarm dark matter?**
Javier Redondo
- 17:25–17:45 **II.7 Solving the η problem in hybrid inflation with Heisenberg symmetry and stabilized moduli**
Koushik Dutta
- 17:50–18:10 **II.8 Inflaton decay: the role of thermal masses**
Marco Drewes
- 18:15–18:35 **II.9 Detecting effects of transplanckian physics with cosmological precision measurements**
Jan Hamann
- 18:40 **ADJOURN**

Session IIIa: Detecting Dark Matter
Bldg. 1b Room: Sem. 3 — Chair: G. Sigl

- 14:30–14:50 **III.1 DM annihilation signal in gamma rays: the importance of radiative corrections**
Torsten Bringmann
- 14:55–15:15 **III.2 Cosmic gamma ray background anisotropies and DM annihilation**
Alessandro Cuoco
- 15:20–15:40 **III.3 DM signatures in the anisotropic radio sky**
Le Zhang
- 15:45–16:05 **III.4 Calibration of the Xenon100 detector**
Roberto Santorelli
- 16:10–16:30 **III.5 Material screening and background expectation for the Xenon100 experiment**
Alfredo David Ferella
- 16:35–17:00 **COFFEE BREAK**

Session IIIb: Astrophysics
Bldg. 1b Room: Sem. 3 — Chair: S. L. Parameswaran

- 17:00–17:20 **III.6 Effect of DM halos on re-ionization**
Aravind Natarajan
- 17:25–17:45 **III.7 Baseline dependence of active-sterile neutrino mixing in the presence of extra-dimensional shortcuts**
Octavian Micu
- 17:50–18:10 **III.8 Influence of neutrino properties on giant flares from soft gamma ray repeaters**
Alexander Gvozdev
- 18:15–18:35 **III.9 DM candidates based upon non-standard neutrino astrophysics**
Andrew Beckwith
- 18:40 **ADJOURN**

Session IVa: Other Dark Matter Candidates and Dark Energy
Bldg. 1b Room: Sem. 4b — Chair: J. Redondo

- 14:30–14:50 **IV.1 Doubly coexisting DM candidates in an extended see-saw model**
Hwa Sung Cheon
- 14:55–15:15 **IV.2 Neutrino as a DM candidate in a leptophobic Z' model**
Choong Sun Kim
- 15:20–15:40 **IV.3 Light DM and bounds on its properties I**
Alexey Boyarskiy
- 15:45–16:05 **IV.4 Light DM and bounds on its properties II**
Oleg Rychayskiy
- 16:10–16:30 **IV.5 Dark Energy and the interior of a black hole**
Hristu Culetu
- 16:35–17:00 **COFFEE BREAK**

Session IVb: Theoretical Ideas
Bldg. 1b Room: Sem. 4b — Chair: A. Ali

- 17:00–17:20 **IV.6 Superparticle mass window from thermal leptogenesis and decaying gravitino dark matter**
Tetsuo Shindou
- 17:25–17:45 **IV.7 Nonequilibrium dynamics of scalar fields in a thermal bath**
Alexey Anisimov
- 17:50–18:10 **IV.8 Spectral function of Majorana neutrinos in a thermal bath**
Sebastian Mendizabal
- 18:15–18:35 **IV.9 Probing hidden sector photons through the Higgs window**
Markus Ahlers
- 18:40 **ADJOURN**