The Abdus Salam International Centre for Theoretical Physics

Planck 05

Organizer(s): B. Bajc, G. Dvali, A. Melfo, G. Senjanovic, Y. Takanishi, F. Vissani
Trieste - Italy, 23 - 28 May 2005

Final programme

Monday 23rd May (Room:Adriatico Guest House Kastler Lecture Hall)

23 May 2005

08:30 - 09:50	(Room: Adriatico Guest House (Lower Level 1)) **Registration & Administrative Formalities**
09:50 - 10:00	**Welcoming Address**
10:00 - 10:30	**I. Klebanov** / *Princeton University, USA* **From Conebranes to Confinement**
10:30 - 11:00	**J. E. Kim** / *Seoul National University, Rep. of Korea* **Dynamical mu**
11:00 - 11:30	(Room: Adriatico Guest House (Terrace)) --- Coffee Break ---
11:30 - 12:00	**M. Shaposhnikov** / *University de Lausanne, Switzerland* **The NuMSM and baryon asymmetry of the universe**
12:00 - 12:30	**L. Roszkowski** / *University of Sheffield, UK* **The Gravitino as Cold Dark Matter**
12:30 - 15:00	(Room: Adriatico Guest House Cafeteria) --- Lunch Break ---

15:00 - 15:30 **C. S. Lim** / *Kobe University, Japan*
Gauge-Higgs unification and related topics

15:30 - 16:00 **C. Deffayet** / *Inst. D'Astrophysique de Paris, France*
DCP gravity and Cosmology

16:00 - 16:30 (Room: Adriatico Guest House (Terrace))
--- Coffee Break ---

16:30 - 17:00 **M. Schmaltz** / *Boston Univeristy, USA*
Hidden sector SUSY breaking and conformal sequestering

17:00 - 17:30 **E. R. Poppitz** / *University of Toronto, Canada*
Ideas and perspectives for supersymmetry on the lattice: lessons from a toy model

17:30 - 18:00 --- Coffee Break ---

18:00 - 18:30 **M. Quiros** / *Universidad Autonoma de Barcelona, Spain*
SUSY and electroweak breaking in the interval

20:00 - 20:00 (Room: Adriatico Guest House Cafeteria)
--- Reception ---

Tuesday, 24th May, Rabi Mohapatra Fest (Room:Adriatico Guest House Kastler Lecture Hall)

24 May 2005

09:30 - 10:00 **G. Senjanovic** / *I.C.T.P., Trieste, Italy*
Remarks on numerology

10:00 - 10:30 **J. Pati** / *University of Maryland, USA*
Neutrinos as The Key to Unification and Our Origin

10:30 - 11:00 **L. Hall** / *University of California, USA*
Neutrino Masses and Dark Energy

11:00 - 11:30 --- Coffee Break ---

11:30 - 12:00 **K. S. Babu** / *Oklahomena State University, USA*
Neutrino Masses and Leptogenesis in Minimal SO(10)

12:00 - 12:30 **Z. Berezhiani** / *Institute of Physics, GAS, Georgia*
Supersymmetric SO(10) model for fermion masses and mixing

12:30 - 15:00 (Room: Adriatico Guest House Cafeteria)
--- Lunch Break ---

15:00 - 15:30 **Q. Shafi** / *University of Delaware, USA*
From delta T/T and Neutrino Oscillations to Grand Unification

15:30 - 16:00 **G. Branco** / *Centro de Fisica das Interaccoes Fundamentais, Lisbon, Portugal*
CP-odd Invariants in Models with several Higgs Doublets

16:00 - 16:30 (Room: Adriatico Guest House (Terrace))
--- Coffee Break ---

16:30 - 17:00	**G. Altarelli** / *C. E. R. N., Geneva, Switzerland* **Models of Neutrino Masses and Mixings**
17:00 - 17:30	**S. Raby** / *Ohio State University, USA* **Neutrino masses and mixing angles in a 4D SO(10)SUSY GUT**
17:30 - 18:00	--- Coffee Break ---
18:00 - 18:30	**A. Masiero** / *Univ.degli Studi di Padova, Italy* **SUSYGUT Correlations among Hadronic and Leptonic Soft Terms**
18:30 - 19:00	**V. Kuzmin** / *Institute for Nuclear Research, Moscow, Russia* **GZK and problems**
19:00 - 19:30	**P. Nath** / *Northeastern University, Boston, USA* **The Stueckelberg Extension**
20:30 - 20:30	(Room: Adriatico Guest House Cafeteria) --- Offical Dinner ---

Wednesday, 25th May (Room:Adriatico Guest House Kastler Lecture Hall)

25 May 2005

09:30 - 10:00	**R. Mohapatra** / *University of Maryland, USA* **Some Perspectives on Unification**
10:00 - 10:30	**S. Pokorski** / *University of Warsaw, Poland* **Little Higgs and supersymmetry**
10:30 - 11:00	**H.-P. Nilles** / *Universitat Bonn, Germany* **SUSY Signals of Flux Compactification**
11:00 - 11:30	(Room: Adriatico Guest House (Terrace)) --- Coffee Break ---
11:30 - 12:00	**I. Antoniadis** / *C.E.R.N., Geneva, Switzerland* **Splitting Supersymmetry in String Theory**
12:00 - 12:30	**A. Pomarol** / *Universidad Autonoma de Barcelona, Spain* **The Minimal Composite Higgs Model**
12:30 - 15:00	(Room: Adriatico Guest House Cafeteria) --- Lunch Break ---
15:00 - 15:00	**TRIP TO AQUILEIA AND GRADO**

Thursday, 26th May (Room:Adriatico Guest House Kastler Lecture Hall)

26 May 2005

09:30 - 10:00	**H.B. Nielsen** / *University of Copenhagen, Denmark* **Dark Matter as Krypto-baryonic from Multiple Point Principle and Higgs already found at LEP**

10:00 - 10:30 **T. Gherghetta** / *University of Minnesota, USA*
Emergent gravity

10:30 - 11:00 **E. Dudas** / *Ecole Polytechnique, Palaiseau Cedex, France*
Massive vector fields in five dimensions and radion stabilisation

11:00 - 11:30 (Room: Adriatico Guest House (Terrace))
--- Coffee Break ---

11:30 - 12:00 **D.R.T. Jones** / *University of Liverpool, UK*
The Anomaly Mediation Scenario and High Precision Sparticle Spectra

12:00 - 12:30 **C. Csaki** / *Cornell University, USA*
Progress in higgsless electroweak symmetry breaking

12:30 - 15:00 (Room: Adriatico Guest House Cafeteria)
--- Lunch Break ---

Thursday, 26th May - Parallel Session 1 (Room:Adriatico Guest House Kastler Lecture Hall)

26 May 2005

15:00 - 15:20 **M. Sakamoto** / *Kobe University, Japan*
Large mass hierarchy and hidden Susy in gauge theories with extra dimensions

15:20 - 15:40 **S. Vempati** / *Ecole Polytechnique, Palaiseau Cedex, France*
General soft terms from supergravity and hierarchial supersymmetry spectra

15:40 - 16:00 **F. Paccetti-Correia** / *Universidade Do Porto, Portugal*
Fayet-Iliopolous terms in 5D orbifold SUGRA - a superfield approach

16:00 - 16:20 **J. Foster** / *Sheffield University, UK*
New Higgs effects in B-Physics in supersymmetry with general flavour mixing

16:20 - 16:40 (Room: Adriatico Guest House (Terrace))
--- Coffee Break ---

16:40 - 17:00 **K. Takenaga** / *Osaka University, Japan*
Effective potential of super Yang-Mills theory on M^4 times S^1

17:00 - 17:20 **A. N. Ioannisian** / *Yerevan Physics Institute, Armenia*
Large neutrino mixing with threshold effects

17:20 - 17:40 **O. Vives** / *C.E.R.N., Geneva, Switzerland*
Understanding the differences in neutrino and charged fermion flavour structures

17:40 - 18:00 **S. King** / *Southampton University, UK*
Quark-lepton complementarity from family symmetry and unification

18:00 - 18:20 (Room: Adriatico Guest House (Terrace))
--- Coffee Break ---

18:20 - 18:40 **G. Marandella** / *Los Alamos National Laboratory, USA*
Models of electroweak symmetry breaking and precision data after LEP2

18:40 - 19:00 **N. Sahu** / *Indian Institute of Technology, Mumbai, India*
Constraints on heavy neutrino masses from leptogenesis in left-right symmetric model with spontaneous CP-violation

19:00 - 19:20 **K. Turzynski** / *University of Warsaw, Poland*
On low-scale supersymmetric leptogenesis

19:20 - 19:40 **S. Nandi** / *Oklahoma State University, USA*
Unification with extra dimensions

Thursday, 26th May - Parallel Session 2 (Room:Adriatico Guest House Giambiagi Lecture Hall)

26 May 2005

15:00 - 15:20 **S. Antusch** / *Southampton University, UK*
Sneutrino Hybird Inflation

15:20 - 15:40 **U. Yajnik** / *Indian Institute of Technology, Mumbai, India*
Ferromagnetism of relic neutrinos: a possible solution to the dark energy problem

15:40 - 16:00 **R. Jeannerot** / *University of Leiden, Netherlands*
Leptogenesis from cosmic strings and reheating after hybrid inflation

16:00 - 16:20 **M. Postma** / *NIKHEF, Amsterdam, Netherlands*
Cosmic strings with zero modes in supergravity

16:20 - 17:00 (Room: Adriatico Guest House (Terrace))
--- Coffee Break ---

17:00 - 17:20 **L. Musongela** / *I.C.T.P., Trieste, Itlay*
Gauge-invariant perturbation theory for trans-Planckian inflation

17:20 - 17:40 **J. Martin** / *Universitat Bonn, Germany*
Instabilities in cosmological flux compactifications

17:40 - 18:00 **T. Watari** / *University of California, USA*
Anthropic selection, landscape and inflation

18:00 - 18:20 (Room: Adriatico Guest House (Terrace))
--- Coffee Break ---

18:20 - 18:40 **T. Asaka** / *Ecole Polytechnique Fed. de Lausanne, Switzerland*
The NuMSM and dark matter

18:40 - 19:00 **L. Boubekeuri** / *University of Lancaster, UK*
Detecting a small perturbation through non-Gaussianity

19:00 - 19:20 **N. Bartolo** / *I. C. T. P., Trieste, Italy*
Primordial non-gaussianity: from inflation to CMB anisotropies

19:20 - 19:40 **D. H. Lyth** / *Lancaster University, UK*
Non-gaussianity made easy

Friday, 27th May (Room:Adriatico Guest House Kastler Lecture Hall)

27 May 2005

09:30 - 10:00 **N. Weiner** / *New York University, USA*
Models of Neutrino Dark Energy

10:00 - 10:30 **E. Ponton** / *Columbia University, USA*
Physics of Localized Terms in Warped Spaces

10:30 - 11:00 **M. Carena** / *Fermi National Accelerator Laboratory, USA*
Dark matter and electroweak baryogenesis

11:00 - 11:30 (Room: Adriatico Guest House (Terrace))
--- Coffee Break ---

11:30 - 12:00 **C.S. Aulakh** / *Panjab University, India*
MSGUTS : from Germ to Bloom

12:00 - 12:30 **L. Randall** / *Harvard University, Cambridge, USA*
Why do we live in 3 dimensions

12:30 - 15:00 (Room: Adriatico Guest House Cafeteria)
--- Lunch Break ---

Friday, 27th May - Parallel Session 3 (Room:Adriatico Guest House Kastler Lecture Hall)

27 May 2005

15:00 - 15:20 **O. Lebedev** / *DESY, Hamburg, Germany*
A stringy solution to the FCNC problem

15:20 - 15:40 **A. Falkowski** / *University of Warsaw, Poland*
Gravity mediation in 6 dimensions

15:40 - 16:00 **D. Ghilencea** / *D.A.M.T.P., Cambridge, UK*
Higher derivative operators on field theory orbifolds

16:00 - 16:20 **Z. Tavartkiladze** / *C.E.R.N., Geneva, Switzerland*
Gauge and modulus inflation from 5D orbifold SUGRA

16:20 - 16:40 (Room: Adriatico Guest House (Terrace))
--- Coffee Break ---

16:40 - 17:00 **G. Bhattacharyya** / *Saha Inst. of Nuclear Physics, Kolkata, India*
Probing KK leptons at the International Linear Collider

17:00 - 17:20 **A. Weiler** / *Technische Universitat Munchen, Germany*
Dynamics of Wilson line phases and gauge Higgs unification in warped space

17:20 - 17:40 **A. Pankov** / *Gomel Polytechnical Institute, Belarus*
Identification of large extra spatial dimensions at the LC with polarized beams

17:40 - 18:00 **K-y, Oda** / *HEARO-Kek, Ibaraki Ken, Japan*
Black hole production and evaporation at future colliders

18:00 - 18:20 (Room: Adriatico Guest House (Terrace))
--- Coffee Break ---

18:20 - 18:40 **A. Papazoglou** / *Ecole Polytechnique Fed. de Lausanne, Switzerland*
Scalar mode analysis of the warped Salam-Sezgin model

18:40 - 19:00 **C. Hirata** / *Princeton University, USA*
Can superhorizon cosmological perturbations explain the acceleration of the universe

19:00 - 19:20 **M. Trapletti** / *DESY, Hamburg, Germany*
Gauge unification in heterotic string model building

Friday, 27th May - Parallel Session 4 (Room:Adriatico Guest House Giambiagi Lecture Hall)

27 May 2005

15:00 - 15:20 **C. Das** / *Inst. of Mathematical Sciences, Chennai, India*
Flipped SU(5), see-saw scale and degenerate vacua

15:20 - 15:40 **L. Alciati** / *Univ. degli Studi di Padova, Italy*
Proton lifetime from SU(5) unification in extra dimensions

15:40 - 16:00 **P. Fileviez-Perez** / *Pontificia Univ. Catolica de Chile, Santiago, Chile*
Testing grand unified theories: how long could we live

16:00 - 16:20 **I. Dorsner** / *I.C.T.P., Trieste, Italy*
Su(5) unification without supersymmetry: neutrino mass, proton decay and light leptoquarks

16:20 - 16:40 **Coffee Break**

16:40 - 17:00 **T. Yamashita** / *HEARO-KEK, Tsukuba, Japan*
Higgs mass in gauge-Higgs unification

17:00 - 17:20 **I. Gogoladze** / *University of Notre Dame, USA*
New Symmetry Breaking Scheme in SO(10) GUT

17:20 - 17:40 **M. Malinsky** / *S.I.S.S.A, Trieste, Italy*
On CP violation in minimal renormalizable SUSY SO(10)

17:40 - 18:00 **F. Nesti** / *Univ. degli Studi di L'Aquila, Italy*
Supersymmetric SO(10) model for fermions

18:00 - 18:20 (Room: Adriatico Guest House (Terrace))
--- Coffee Break ---

18:20 - 18:40 **L. Bergamin** / *Technische Universitat Wien, Austria*
Global aspects of Chern-Simons (super-)gravity and its kink

18:40 - 19:00 **G. de Berredo-Peixoto** / *Univ. Fed. de Juiz de Fora, Brazil*
Renormalization group in higher derivative quantum gravity: new developments

19:00 - 19:20 **A. Nicolis** / *Harvard University, Cambridge, USA*
Unavoidable ghosts in massive gravity

19:20 - 19:40 **Y. Achiman** / *Tel-Aviv University, Israel*
Can one phase induce all CP violations including leptogenesis

Saturday, 28th May (Room:Adriatico Guest House Kastler Lecture Hall) (**Saturday**)

28 May 2005

10:00 - 10:30	**G. G. Ross** / *University of Oxford, UK* **Racetrack Inflation**
10:30 - 11:00	**T. Hambye** / *University of Oxford, UK* **Leptogenesis: where do we stand?**
11:00 - 11:30	(Room: Adriatico Guest House (Terrace)) --- Coffee Break ---
11:30 - 12:00	**G. Servant** / *S.I.S.S.A., Trieste, Italy* **First-order EW phase transition from higher dimensional Higgs self interactions**
12:00 - 12:30	**M. Shifman** / *University of Minnesota, USA* **Nonperturbative Yang-Mills from supersymmetry and strings**
12:30 - 13:00	**Closing remarks**
12:30 - 15:00	(Room: Adriatico Guest House (Terrace)) --- Farewell Reception ---