## INTERNATIONAL WORKSHOP ON Unification and Cosmology after Higgs Discovery and BICEP

(13-15 May, 2014)

Tuesday: 13 May

**Bus leaves IISER: 08:30 (SHARP)** 

08:30- 09:15	Registration (Lobby of Physics dept.)
09:15- 10:30	Opening session
09:45-10:30	Keynote talk by Prof. G. Rajasekaran "High Energy Physics in 2014 and its Future"
10:30-11:00	Tea (Poster board Hall open )
11:00-11:40	C.S. Aulakh "New Minimal SO(10) GUT: A theory for all epochs"
11:40-12:20	B. Bajc "Interplay of Susy and Gauge symmetry in SU(5) and E6 GUTs"
12:20-13:00	L. Sriramkumar "On the detection of the imprints of primordial gravitational waves by BICEP2 and implications for the early universe"
13:00-14:30	Lunch
14:30-15:15	Zurab Tavartkiladze (Skype Talk) "Twin-Unified SU(5) x SU(5)'GUT And Phenomenology"
15:15-16:00	Romesh Kaul "Why Supersymmetry? Physics Beyond the Standard Model"
16:00-16:30	Tea (Poster board Hall open )
16:30-17:15	Amitava Raychaudhuri "Is the size of theta13 related to the smallness of the solar mass splitting?"

17:15-18:00	Srubabati Goswami "Neutrinos in the time of Higgs"
19:30 -21:00	Workshop Dinner with PU Physics Faculty
21:15	Bus leaves for IISER.

# Wednesday: 14 May

### Bus leaves IISER: 08:30 (SHARP)

09:30- 10:15	P.Majumdar "Kalb-Ramond Fields and B-mode Polarization of the CMB"	
10:15- 11:00	Rabin Banerjee "Two dimensional hydrodynamics with gauge and gravitational anomalies"	
11:00-11:30	Tea	
11:30-12:00	G.Rajsekaran "Was dark matter detected in India 40 years ago?"	
12:00-12:45	Y.Y. Keum "Neutrino Masses"	
12:45-14:30	Lunch: (Poster board Hall open)	
14:30-15:10	Subhendra Mohanty (Skype Talk) "Inflation in the light of BICEP2"	
15:10-15:40	Rahul Srivastava "Predictions from High Scale Mixing Unification Hypothesis"	
15:40-16:00	Monojit Ghosh "Evidence for Leptonic CP violation"	
16:00-16:45	Tea (Poster board Hall open )	
16:45-17:30	R.N. Mohapatra (Skype Talk) "Solving Strong CP without Axions and New TeV Physics"	
17:30 -18:15	S. Vempati "Implications of Higgs mass measurement on Supersymmetric Models"	

18:30	Bus leaves for IISER.
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# Thursday: 15 May

### Bus leaves IISER: 08:30 (SHARP)

09:30- 10:15	Kaladi Babu (Skype Talk) "Theory and Phenomenology of Higgs Bosons in SuSY Left-Right Models"	
10:15- 11:00	Urjit Yajnik "Bloom to gloom of PeV scale Susy LR Models"	
11:00-11:30	Tea (Poster board Hall open )	
11:30-12:00	Kalpana Bora "Lepton Flavor Violation in SUSY SO(10) Theories in Light of LHC Results on Higgs"	
12:00-12:30	Ayan Chatterjee "Hawking radiation from dynamical horizons."	
12:30-13:00	Ram Awasthi " Non-SUSY SO(10) Grand Unification "	
13:00-14:30	Lunch (Poster board Hall open )	
14:30-15: 00	Charanjit Kaur "Dynamical Generation of Flavour in MSGUTs"	
15:00-15:30	Radha Raman Gautam : "Two Texture Zeros and Near Maximal Atmospheric Neutrino Mixing Angle"	
15:30-16:00	Neetika Sharma "Generalized parton distributions for the nucleon in the Light-front quark model"	
16:00-16:30	Tea (Poster board Hall open )	
16:30 -16:50	Debashish Majumdar "A Possible Explanation of Low Energy gamma-ray Excess from Galactic Centre and Fermi Bubble by a Dark Matter Model with Two Real Scalars"	

16:50-17:10	Daljeet Kaur "Precision measurement of neutrino oscillation"	
17:10- 17:35	Rajeev Kumar "Flavour Physics in last Decade: Belle & BaBar"	
17:35- 18:00	Mansi Dhuria "Phenomenological implications of D3/D7 mu-split like Supersymmetry"	
18:00 -18:15	Valedictory	
18:30	Bus leaves for IISER	

#### **POSTER SESSIONS**

# (Posters can be left displayed for discussion on all days during Morning Tea/Lunch/Afternoon Tea)

Samandeep Sharma	"Constraining the lightest neutrino mass and m <sub>ee</sub> from general lepton mass matrices"
Ila Garg	"Seesaw and NMSO(10) GUT Inflation"
Sonali Bhatnagar	"Beyond the Standard Model"
Dipo Mahto	"Frequency/wavelength of Hawking radiations as characteristics of non-spinning black holes"
Kanishka Rawat	"Muon Response in ICAL Detector at India based Neutrino Observatory"
B. Uppal	"Study of Z0/ $\gamma$ *+Jet via Electron Decay mode at $\sqrt{s}$ = 7TeV in CMS @ LHC"