

W3: Quantum Gravity and Early Universe

Schedule of Talks : Early Universe

Friday, December 16, 2011

| Time | Name of the Speaker | Title |
|------------------------------|----------------------------|--|
| Topic: Early Universe | | |
| 1500 – 1510 | Marcello Musso | Galilean symmetry in the effective theory of inflation: New shapes of non-Gaussianity |
| 1510 – 1520 | Jinn-Ouk Gong | Multi-field inflation: Formulation, effective theory and phenomenology |
| 1520 – 1530 | Frederico Arroja | Large and strong scale dependent bispectrum in single field inflation from a sharp feature in the mass |
| 1530 – 1540 | Gaurav Goswami | Features in scalar primordial power spectrum and their consequences |
| 1540 – 1550 | Suratna Das | Effects of radiation on primordial non-Gaussianity |
| 1550 – 1600 | Dhiraj Kumar Hazra | On the discriminating power of f_{nl} |
| 1600 – 1610 | Raghavan Rangarajan | Non-Gaussian fluctuations of the inflaton and constancy of correlations of zeta outside the horizon |
| 1610 – 1620 | Yasusada Nambu | Classical and quantum correlations of scalar field in the inflationary universe |
| 1620 – 1650 | Coffee Break | |
| 1650 – 1700 | Mairi Sakellariadou | Non-commutative spectral geometry |
| 1700 – 1710 | Akhilesh Nautiyal | Warm natural inflation |
| 1710 – 1720 | Abhishek Atreya | Baryon inhomogeneities in early universe due to CP violating quark scattering from QCD Z (3) domains |
| 1720 – 1730 | Rajeev Kumar Jain | Can slow roll inflation induce relevant helical magnetic fields? |
| 1730 – 1740 | Moslem Zarei | Gauge vector fields at the preheating stage |
| 1740 – 1750 | Rajesh Parwani | Nonlinear quantum cosmology: Nonperturbative effects |
| 1750-1800 | Josue De Santiago Sanabria | Generalizing a unified model of dark matter, dark energy, and inflation with a noncanonical kinetic term |
| 1800 – 1810 | Amitabha Mukherjee | Scalar field theory with a time-dependent potential and its application to cosmology |
| 1810 – 1820 | Dibakar Roychowdhury | Thermodynamics of Hawking-Page phase transition in AdS black holes |

W3: Quantum Gravity and Early Universe

Schedule of Talks : Quantum Gravity

Sunday, December 18, 2011

| Time | Name of the Speaker | Title |
|-------------------------------|----------------------|---|
| Topic: Quantum Gravity | | |
| 0900 – 2000 | Poster Session | W3: Quantum Gravity and Early Universe |
| 1400 – 1500 | Poster Viewing | |
| 1500 – 1515 | Carlo Rovelli | Loop quantum gravity |
| 1515 – 1530 | Fernando Barbero | Detailed black hole state counting in loop quantum gravity |
| 1530 – 1540 | Sumati Surya | Markov chains with causal sets |
| 1540 – 1550 | Rakesh Tibrewala | Modified constraint algebra in LQG and spacetime interpretation? |
| 1550 – 1600 | Madhavan Varadarajan | Towards a Consistent Quantum Dynamics for Canonical Loop Quantum Gravity |
| 1600 – 1610 | Francesca Vidotto | Spinfoam cosmology |
| 1610 – 1620 | Julien Grain | The primordial universe as a potential probe of loop quantum cosmology |
| 1620 – 1630 | William Nelson | Inhomogeneities in loop quantum cosmology |
| 1630 – 1700 | Coffee Break | |
| 1700 – 1710 | Sanved Kolekar | Action for gravity: An emergent perspective |
| 1710 – 1720 | Alexander Vikman | Non-canonical scalar field theories with kinetic gravity braiding |
| 1720 – 1730 | Cenalo Vaz | Quantum gravitational collapse |
| 1730 – 1740 | K. Narayan | Cosmological singularities in string theory |
| 1740 – 1750 | Srijit Bhattacharjee | Gauge invariant coupling of fields to torsion: A string inspired model |
| 1750 – 1800 | Hiromi Saida | Universal property of quantum gravity implied by uniqueness theorem of Bekenstein-Hawking entropy |
| 1800 – 1810 | S. Shankaranarayanan | Entanglement entropy in all dimensions |
| 1810 – 1820 | Anirban Saha | Upper-bound of the time-space noncommutative parameter from gravitational quantum well experiment |

W3 – QUANTUM GRAVITY and EARLY UNIVERSE

POSTERS (13) [December 18 and 19]

| No. | AUTHOR | TITLE |
|-----|------------------------|---|
| 01 | Suhail Ahmad | Sub-leading corrections to black hole entropy formula in black holes (convergences and divergences) |
| 02 | Suman Ghosh | Higher-order field derivatives and deviations from entropy-area law |
| 03 | Yuan K. Ha | An underlying theory for gravity |
| 04 | Alok Laddha | Constraint algebra in loop quantum gravity |
| 05 | Kinjalk Lochan | Extension of trace dynamics to spacetime |
| 06 | Gaurav Narain | Analogue of Wilson-Fisher fixed point in quantum gravity |
| 07 | Kumar Atmjeet | Cosmological magnetogenesis |
| 08 | Shuvendu Chakraborty | Higher dimensional cosmology with normal scalar field and tachyonic field |
| 09 | Ujjal Debnath | Thermodynamics in Vaidya spacetime |
| 10 | Pradyumn Kumar Sahoo | Plane symmetric domain walls and cosmic strings in bimetric theory |
| 11 | Chandra Prakash Singh | Viscous FRW model with particle creation in the early universe |
| 12 | Navin Sivanandam | Adiabaticity and non-Gaussianity |
| 13 | Sanasam Surendra Singh | Particle creation in cosmology with varying speed of light |