# Workshop on Noncommutative Field Theory and Gravity

September 22-26

## Schedule

#### **Tuesday 22**

- 09.00-09.05: Welcome 09.05-09:55: Schupp (lecture: Aspects of NCG in string theory I)
- 09:55-10.45: Schupp (lecture: Aspects of NCG in string theory  $\,$  II )
- 10:45-11.15: Coffee
- 11.15-12.05: Bakas (lecture: Aspects of NCG in string theory III )
- 12.05-12.45: Lizzi (Planck's Inconstant)
- 12:45-13:15 Dabrowski (The Standard Model in Noncommutative Geometry and Morita equivalence)

13.15-16.00: Lunch

16.00-16.40: Barrett (Quantum non-commutative geometry)16.40-17.10: Dobrev (Invariant Differential Operators in Noncommutative Quantum Group Setting)

## 17.10-17.40: Coffee

- 17:40-18:10 O'Connor (Membrane Matrix models and non-perturbative checks of AdS/CFT)
- 18:10-18:30 J. Tekel (The phase diagram of the scalar field theory on the fuzzy sphere and the multi tra-18:30-18:50 Jonke (Sigma models for genuinely non-geometric backgrounds)

Discussion

## Wednesday 23

09.00-09.50: Aschieri (lecture: Aspects of NC field theory I ) 09.50-10.40: Aschieri (lecture: Aspects of NC field theory II )

10.40-11.10: Coffee11.10-12.00: Hanada (lecture: Matrix models I)12.00-12.40: Tsuchiya (Exponential and power-law expansion of the Universe from the type IIB matrix rr

12.40-15.30: Lunch

15:30-15:50 Vagenas (Semiclassical corrections to black hole entropy and the generalized uncertainty p15:50-16:20 Ishiki (Matrix Geometry and Coherent States)16:20-16.50: Coffee

## **QSPACE WG3 meeting**

17:00-18:00 scientific discussion (what can and should be done in next 4 years) 18:00-... organizational meeting WG3

20:00 Greek Night

#### **Thursday 24**

09.00-09:50: Hanada (lecture: Matrix models II) 09.50-10.40: Blaschke (lecture: Aspects of NC field theory III )

10.40-11.10: Coffee

11.10-12.00: Rivasseau (lecture: Tensor Field Theory I)12.00-12.40: Lewandowski (Non-commutative structure of spacetime from classical general relativity)12:40-13:00 Sakellariadou (TBA)

Discussion

free afternoon

#### Friday 25

09.00-09.50: Ramgoolam (lecture: Combinatorics of large N gauge theories, I)
09:50-10.40: Ramgoolam (lecture: Combinatorics of large N gauge theories, II)
10.40-11.10: Coffee
11:10-12.00: Rivasseau (lecture: Tensor Field Theory II )
12:00-12:40 Krajewski (Power counting and scaling for tensor models)

12.40-16.00: Lunch

16.00-16.40: Wulkenhaar (A solvable quantum field theory in 4 dimensions ) 16:40-17:00 Martin (UV Quantum corrections in Unimodular Gravity)

17.00-17.30: Coffee

17:30-18:00 You (Tadpole contribution to the noncommutative photon self-energy)
18:00-18:30: Borowiec (Extended kappa-deformations and extended kappa-Minkowski spacetimes)
18:30-18:50 Toppan ((Conformal Galilei Algebras and invariant PDEs cryptohermiticity and deformation Discussion

#### Saturday 26

09:00-09:40 Meusburger (Hopf algebra gauge theory and Kitaev lattice models)
09:40-10:00: Barnes (Nonassociative geometry in the representation category of a quasi-Hopf algebra)
10.00-10.20: Kupryanow (Nonassociative Weyl star products)
10.20-10.40: Glaser (Monte Carlo simulations of fuzzy space)
10.40-11.10: Coffee
11:10-11:30 Dobrski (Fedosov quantization and noncommutative gravity)

11:30-12:10 Iliopoulos (Gauge theories and non-commutative geometry) Discussion, END