

**ECT\* Workshop**  
**“Gauge Topology: from Lattice to Colliders”**

Monday, 7 November - Friday, 11 November, 2016

**PROGRAM**

**Sunday, 6 November**

- Dinner (20:00): Pizza-dinner at Ristorante-Pizzeria Green Tower

**Monday, 7 November**

- 8:30 registration
- Morning Session
  - 9:15 - 9:30 E. Shuryak, “Welcome and Introduction”
  - 9:30 - 10:20 A. Di Giacomo, “Order Parameter for Confinement”
  - 10:20 - 11:10 C. Gattringer, “Dualization of non-abelian lattice gauge theories”
  - 11:10 - 11:40 Coffee Break
  - 11:40 - 12:30 L. Cosmai, “Flux Tubes in QCD”
- Lunch Break
- Afternoon Session
  - 14:30 - 15:20 J. Greensite, “Coulomb Confinement and Constituent Gluons”
  - 15:20 - 15:50 Coffee Break
  - 15:50 - 16:40 M. Faber, “Vortices and chiral symmetry breaking”
  - 16:40 - 17:30 S. Valgushev, “Complex Instantons in Two-dimensional Gauge Theory”
- Dinner (19:00)

## Tuesday, 8 November

- Morning Session
  - 9:00 - 9:50 A. Turbiner, “Summing trans-series”
  - 9:50 - 10:40 A. Zhitnitsky, “The QCD vacuum as the superfluid system”
  - 10:40 - 11:10 Coffee Break
  - 11:10 - 12:00 P. Faccioli, “Instanton, path integral and topology: from QCD to proteins”
- Lunch Break
- Afternoon Session
  - 14:30 - 15:20 K. Fukushima, “Worldline instantons and novel phenomena in inhomogeneous magnetic fields”
  - 15:20 - 15:50 Coffee Break
  - 15:50 - 16:40 M. Pühr, “Non-perturbative study of the chiral separation effect in quenched QCD”
  - 16:40 - 17:30 P. Buividovich, “A numerical study of chiral plasma instability”
- Dinner (19:00)

## Wednesday, 9 November

- Morning Session
  - 9:00 - 9:50 E. Shuryak, “Recent progress on monopoles and instanton-dyons”
  - 9:50 - 10:40 R. Larsen, “Statistical simulations of instanton dyon ensembles”
  - 10:40 - 11:10 Coffee Break
  - 11:10 - 12:00 T. Iritani, “Lattice Studies of  $Z_N$ -symmetric QCD”
- Lunch Break
- Afternoon Session
  - 14:30 - 15:20 B. Martemyanov, “Why do we like dyons?!”
  - 15:20 - 15:50 Coffee Break
  - 15:50 - 16:40 M. Ilgenfritz, “Dyons and Roberge - Weiss transition”
  - 16:40 - 17:30 M.A. Lopez-Ruiz, “Confinement in correlated instanton-dyon ensemble”
- Dinner (20:00)

## Thursday, 10 November

- Morning Session
  - 9:00 - 9:50 Z. Fodor, “Topological susceptibility and the axion’s mass”
  - 9:50 - 10:40 C. Bonati, “High temperature topological susceptibility in QCD: results and open problems”
  - 10:40 - 11:10 Coffee Break
  - 11:10 - 12:00 M. Lombardo, “Topology in lattice QCD”
- Lunch Break
- Afternoon Session
  - 14:30 - 15:20 A. Dromard, “Extracting physics from fixed topology simulations“
  - 15:20 - 15:50 Coffee Break
  - 15:50 - 16:40 T. Sulejmanpasic, “Global symmetries and volume independence”
  - 16:40 - 17:30 M. Garcia Perez, “Volume independence beyond large N”
- Dinner (20:00)

## Friday, 11 November

- Morning Session
  - 9:00 - 9:50 L. Glozman, “A hidden classical symmetry of QCD and its implications”
  - 9:50 - 10:40 M. Catillo, “Distribution of the Dirac modes in QCD”
  - 10:40 - 11:10 Coffee Break
  - 11:10 - 12:00 M. D’Elia, “Summary and Farewell”
- Lunch