The Abdus Salam International Centre for Theoretical Physics

# Conference on Cold Materials, Hot Nuclei, and Black Holes: Applied Gauge/Gravity Duality

Organizer(s): Directors: Vijay Balasubramanian, Jan de Boer, Veronika Hubeny, M. Rangamani. Local Organiser: K. Narain
Trieste - Italy, 15 - 26 August 2011

**Venue: Adriatico Guest House Giambiagi Lecture Hall**

## Final programme

**Monday 15 August 2011** (Room:Adriatico Guest House Giambiagi Lecture Hall)

**15 August 2011**

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| **09:00 - 10:00** | (Room: Adriatico Guest House - Giambiagi Lecture Hall Area (Lower Level 1))<br>**Registration** |
| **10:00 - 10:30** | **Fernando Quevedo** / *Director ICTP*<br>**Opening and welcome remarks** |
| **10:30 - 11:00** | (Room: Adriatico Guest House (Terrace))<br>--- Coffee Break --- |
| **11:00 - 12:00** | **Amos Yarom** / *Princeton University, Princeton, USA*<br>**Superfluid dynamics and the second law** |
| **12:00 - 14:00** | --- Lunch --- |
| **14:00 - 16:30** | (Room: Adriatico Guest House Lundqvist Lecture Hall)<br>**Round Table Session** |

**Tuesday 16 August 2011** (Room:Adriatico Guest House Giambiagi Lecture Hall)

**16 August 2011**

**10:00 - 11:00** **Sung-Sik Lee** / *McMaster University, Hamilton, Canada*
**Holographic matter: deconfined string at criticality**

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

**11:30 - 12:30** **Piljin Yi** / *Korean Institute for Advanced Study, Seoul, Republic of Korea*
**Two approaches to holographic baryons**

**12:30 - 14:00** --- Lunch ---

**14:00 - 16:30** (Room: Adriatico Guest House Lundqvist Lecture Hall)
**Round Table Session**

**Wednesday 17 August 2011** (Room:Adriatico Guest House Giambiagi Lecture Hall)

**17 August 2011**

**10:00 - 11:00** **Ramalingam Loganayagam** / *Harvard University, Cambridge, USA*
**The dual of the Dirichlet problem**

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

**11:30 - 12:30** **Cynthia Keeler** / *University of Harvard & University of Michigan, USA*
**Fluid-gravity duality at a cutoff surface**

**12:30 - 14:00** --- Lunch ---

**14:00 - 15:30** (Room: Adriatico Guest House Lundqvist Lecture Hall)
**Round Table Session**

**15:30 - 16:30** **Andrei Parnachev** / *Leiden University, Leiden, Netherlands*
**Conformal phase transition at weak and strong coupling**

**Thursday 18 August 2011** (Room:Adriatico Guest House Giambiagi Lecture Hall)

**18 August 2011**

**10:00 - 11:00** **Diana Vaman** / *University of Virginia, Charlottesville, USA*
**Real time AdS/CFT and applications: jet quenching and second order hydrodynamic coefficients**

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

**11:30 - 12:30** **Simon Ross** / *Durham University, Durham, UK*
**Holography for asymptotically locally Lifshitz spacetimes**

**12:30 - 14:00** --- Lunch ---

**14:00 - 16:30** (Room: Adriatico Guest House Lundqvist Lecture Hall)
**Round Table Session**

**Friday 19 August 2011** (Room:Adriatico Guest House Giambiagi Lecture Hall)

**19 August 2011**

**10:00 - 11:00** **Berndt Mueller** / *Duke University, Durham, USA*
**Relativistic heavy ion collisions, entropy and thermalization**

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

**11:30 - 12:30** **Ben Craps** / *Vrije Universiteit, Brussels, Belgium*
**Holographic thermalization**

**12:30 - 14:00** --- Lunch ---

**14:00 - 16:30** (Room: Adriatico Guest House Lundqvist Lecture Hall)
**Round Table Session**

**Monday 22 August 2011** (Room:Adriatico Guest House Giambiagi Lecture Hall)

**22 August 2011**

**10:00 - 11:00** **Derek Teaney** / *Stony Brook University, New York, USA*
**Equilibration of fluctuations in hot AdS_5**

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

**11:30 - 12:30** **Micha Berkooz** / *The Weizmann Institute of Science, Rehovot, Israel*
**Near horizon solutions of D3 branes ending on D5 branes**

**12:30 - 14:00** --- Lunch ---

**14:00 - 16:30** (Room: Adriatico Guest House Lundqvist Lecture Hall)
**Round Table Session**

**16:30 - 17:00** (Room: Adriatico Guest House (Terrace))
--- Coffee Break ---

**Tuesday 23 August 2011** (Room:Adriatico Guest House Giambiagi Lecture Hall)

**23 August 2011**

**10:00 - 11:00** **Sandip Trivedi** / *Tata Institute of Fundamental Research, Mumbai, India*
**Holographic Fermi and non-Fermi liquids**

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

**11:30 - 12:30** **Robert Myers** / *Perimeter Institute for Theoretical Physics, Waterloo, Canada*
**Holographic entanglement entropy**

**12:30 - 14:00** --- Lunch ---

**14:00 - 16:30** (Room: Adriatico Guest House Lundqvist Lecture Hall)
**Round Table Session**

**16:30 - 17:00** (Room: Adriatico Guest House (Terrace))
--- Coffee Break ---

**Wednesday 24 August 2011** (Room:Adriatico Guest House Giambiagi Lecture Hall)

**24 August 2011**

**10:00 - 11:00** **Jerome Gauntlett** / *Imperial College, London, UK*
**Fermion spectral functions from the top**

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

**11:30 - 12:30** **Shamit Kachru** / *Stanford University & SLAC, Palo Alto, USA*
**Comments on AdS2 in AdS/CMT**

**12:30 - 14:00** --- Lunch ---

**14:00 - 16:30** (Room: Adriatico Guest House Lundqvist Lecture Hall)
**Round Table Session**

**16:30 - 17:00** (Room: Adriatico Guest House (Terrace))
--- Coffee Break ---

**Thursday 25 August 2011** (Room:Adriatico Guest House Giambiagi Lecture Hall)

**25 August 2011**

**10:00 - 11:00** **Larus Thorlacius** / *NORDITA and the University of Iceland*
**Holography for strongly correlated fermions**

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

**11:30 - 12:30** **Koenraad Schalm** / *Institut Lorentz, Leiden, Netherlands*
**Towards a holographic description of the Fermi liquid**

**12:30 - 14:00** --- Lunch ---

**14:00 - 16:30** (Room: Adriatico Guest House Lundqvist Lecture Hall)
**Round Table Session**

**16:30 - 17:15** (Room: Adriatico Guest House (Terrace))
--- Coffee Break ---

**Friday 26 August 2011** (Room:Adriatico Guest House Giambiagi Lecture Hall)

**26 August 2011**

**10:00 - 11:00** **Joan Simon** / *University of Edinburgh, UK*
**Comments on horizons and scrambling**

**11:00 - 11:15** **Closing remarks**

**11:15 - 11:45** (Room: Adriatico Guest House (Terrace))
--- Coffee Break ---