

# Kavli Institute for Theoretical Physics

## Quantum Fields Beyond Perturbation Theory

**Coordinators: Henriette Elvang, Zohar Komargodski, Joseph Polchinski**

Overview talks are 50 min + 20 min discussion

Regular talks are 30 min + 15 min discussion

### Monday, January 27, 2014

8:50am	Lars Bildsten	<i>Welcome</i>
9:00am	Matthew Headrick	<i>Overview: Entanglement entropy</i>
10:40am	John Cardy	<i>Entanglement Negativity in Quantum Field Theory</i>
11:25am	Robert Myers	<i>Entanglement and C-theorems</i>
12:10pm	LUNCH	
2:00pm	Michael Douglas	<i>Overview: (0,2) theories</i>
3:40pm	Alexander Zhiboedov	<i>On Analytic Properties of Correlation Functions in CFTs</i>
4:25pm	Pedro Vieira	<i>Bootstrap<sup>2</sup> for Wilson Loops (and Amplitudes) at Finite Coupling</i>

### Tuesday, January 27, 2014

9:00am	Ira Rothstein	<i>Overview: Effective field theories</i>
10:40am	Leonardo Senatore	<i>The Effective Field Theory of Cosmological Large Scale Structures</i>
11:25am	Alberto Nicolis	<i>Peculiarities of non-relativistic Goldstones</i>
12:10pm	LUNCH	
2:00pm	Dam Thanh Son	<i>Overview: Nonrelativistic CFT's</i>
3:40pm	Jared Kaplan	<i>AdS Cluster Decomposition and Deficit Angles from the Bootstrap</i>
4:25pm	Manuela Kulaxizi	<i>Constraints from CFT three point functions</i>

### Wednesday, January 29, 2014

9:00am	Ran Yacoby	<i>Overview: Chern-Simons theories with matter</i>
10:40am	Per Kraus	<i>Overview: Higher spin gravity</i>
11:50am	Alejandra Castro	<i>Wilson lines in higher spin gravity</i>
12:35pm	LUNCH	
2:00pm	FREE AFTERNOON	

### Thursday, January 30, 2014

9:00am	Thomas Dumitrescu	<i>Overview: Supersymmetry in curved space</i>
10:40am	Nathan Seiberg	<i>Think globally act locally</i>
11:25am	Xi Yin	<i>The ground state wave function of Matrix Theory</i>
12:10pm	LUNCH	
2:00pm	Brian Willett	<i>Overview: Localization</i>
3:40pm	Mithat Unsal	<i>Resurgence and transseries in QFT: Towards a non-perturbative continuum definition</i>
4:25pm	Matt Buican	<i>A New Constraint on Supersymmetric Theories</i>

### Friday, January 31, 2014

9:00am	Zohar Komargodski	<i>Overview: Renormalization group flows</i>
10:40am	Riccardo Rattazzi	<i>The local renormalization group and the structure of 4D RG flows</i>
11:25am	Silviu Pufu	<i>Properties of monopole operators in 3d gauge theories</i>
12:10pm	LUNCH	
2:00pm	Slava Rychkov	<i>Overview: Conformal bootstrap</i>
3:40pm	David Simmons-Duffin	<i>The 3d Ising Spectrum Minimizes c</i>
4:25pm	Leonardo Rastelli	<i>The protected bootstrap: Infinite chiral symmetry in four- and six-dimensional superconformal field theories</i>