Programme

Please notice the slightly different schedule on Thursday
The talks start slightly earlier in the afternoon -- the morning is free.

	05/06/18	06/06/18	07/06/18	08/06/18
10:00 -12:00 (11:00-11:30 coffee break)	Gregory Korchemsky **Title:** Exact correlation functions in gamma-deformed N=4 SYM/fishnet theory. **Abstract:** We demonstrate that \gamma-deformed planar N=4 SYM has two nontrivial fixed points in the double scaling limit, combining vanishing 't Hooft coupling and large imaginary deformation parameter. We provide evidence that, at the fixed points, the theory is described by an integrable non unitary four-dimensional "fishnet" CFT. We find a closed expression for the four-point correlation function of the simplest protected operators and use it to compute the exact conformal data of operators with arbitrary Lorentz spin.	Anatoly Dymarsky **Title:** Eigenstate Thermalization - from interacting spins to quantum field theory, and beyond. **Abstract:** In this talk I will discuss recent developments and applications of Eigenstate Thermalization Hypothesis, the underlying microscopic mechanism explaining thermalization of isolated quantum ergodic systems. I will start with a brief review of the subject in case of many-body quantum systems and then formulate the hypothesis for the conformal field theories. In the second part of the talk, time permitting, I will discuss the connection between Eigenstate Thermalization and Random Matrix Theory and will argue that thermalization of quantum systems involves a new timescale, which is parametrically longer than Thouless time. The talk is based on arXiv:1804.08626, arXiv:1710.10458, arXiv:1610.00302.	**FREE**	Agnese Bissi **Title:** Analytic bootstrap for large N theories **Abstract:** In this talk I will discuss how to use techniques from the analytic conformal bootstrap to study large N theories. In particular, I will present the application of this method to compute anomalous dimensions of double trace operators in N=4 SYM at strong coupling and in three dimensional vector models, as an expansion in large N.

12:00 -14:30	Lunch	Lunch	Lunch **(Note: Thursday talk starts earlier!)**	Lunch
Thursday only: 13:00 – 15:00 **(14:00-14:30 coffee break)**			Julian Sonner **Title:** Thermalisation and Black Holes in Low-Dimensional AdS/CFT **Abstract:** In holographic duality, black holes are dual to thermal ensembles. Their dynamics thus maps onto the problem of thermalisation of strongly coupled field theories with holographic duals. I will describe recent results, both analytical and numerical, which explore the connection between thermalisation of field theories and black holes in two-dimensional conformal field theories at large central charge and in the class of so-called SYK models.	

14:30 – 16:30 (15:30-16:00 coffee break)	Daniel Jafferis **Title: TBA** **Abstract:**	Joao Penedones **Title:** Bootstrapping Multiple Scattering Amplitudes **Abstract:** I will discuss how one can derive universal bounds on the interaction strength from general properties of scattering amplitudes in Quantum Field Theory.		
Thursday only: 15:15 – 17:15 **(16:15-16:45 coffee break)**			**Miguel Paulos** **Title:** A more functional bootstrap **Abstract:** The conformal bootstrap aims to systematically constraint CFTs based on crossing symmetry and unitarity. In this talk I will introduce a new approach to extract information from the crossing symmetry sum rules, based on the construction of linear functionals with certain positivity properties. I show these functionals allow us to derive optimal bounds on CFT data. Furthermore, I will argue that special extremal solutions to crossing form a	

			basis for the crossing equation, with the functionals living in the dual space. As an application, we reconstruct physics of QFTs in AdS2 from the properties of 1d CFTs.	