

Bohr-100: Current Themes in Theoretical Physics



Monday, 1 August 2022 - Friday, 5 August 2022

Niels Bohr Institute

Scientific Programme

||||| **Monday** |||||

9.00-9.45: *Registration (Aud. C)*

9.45-10.00: Welcome by **Head of Institute, Jan Thomsen**: "*Bohr@100 celebration*"

10.00-11.00: Bern: "*Applications of Scattering Amplitudes to Gravitational Waves*"

11.00-11.30: *Break*

11.30-12.30: Zhiboedov: "*Multi-stress tensor dynamics in four-dimensional CFTs*"

12.30-13.30: *Lunch*

13.30-14.30: Di Vecchia: "*Universality at high energy in black-hole scattering*"

14.30-14.45: *Break*

14.45-15.45: Green: "*Novel representation of integrated correlators in $\mathcal{N}=4$ supersymmetric Yang-Mills*"

15.45-16.00: *Break*

16.00-17.00: Mizera: "*Unitarity Cuts of the Worldsheet*"

17.00-18.00: *Reception (Aud. C)*

||||| **Tuesday** |||||

10.00-11.00: Polyakov: "*A few good unsolved problems*"

11.00-11.30: *Break*

11.30-12.30: Bourjaily: "*Adventures in Perturbation Theory*"

12.30-13.30: *Lunch*

13.30-14.30: Broadhurst: "*Taming a resurgent renormalon*"

14.30-14.45: *Break*

14.45-15.45: Vanhove: "*Analytical evaluation of cosmological correlators*"

||||| **Wednesday** |||||

10.00-11.00: 't Hooft: "*Quantum Clones Inside Black Holes*"

11.00-11.30: *Break*

11.30-12.30: Cardoso: "*The discovery potential of black holes*"

12.30-13.30: *Lunch*

13.30-14.30: Parra-Martinez: "*Causal modifications of gravity*"

15.30: **NBI Colloquium Paul Steinhardt**: Title: *The Second Kind of Impossible (Aud. 3, HCØ, Universitetsparken)*

Abstract: A decade ago, seven Russians, five Americans, an Italian and a black cat named Bucks began an expedition across the tundra of far eastern Russia north of the Kamchatka Peninsula on an unpromising search for what many believed to be impossible. The talk will describe what they were looking for, what they actually found, and what has been learned in the decade since.

||||| **Thursday** |||||

10.00-11.00: Cheung: "*Double Copy Variations*"

11.00-11.30: *Break*

11.30-12.30: Hannesdottir: "*What is the $i\epsilon$ for the S-matrix?*"

12.30-13.30: *Lunch*

13.30-14.30: Pasterski: "*The String Family*"

14.30-14.45: *Break*

14.45-15.45: Veneziano: "*Gravitational scattering: from particles, to strings, to black holes*"

15.45-16.00: *Break*

16.00-17.00: Arkani-Hamed: " *Dual Surfacedra, Or How the Tropical Geometry of Particles Discovers Strings*"

18.30-21.00: *Bohr-100 Banquet: Restaurant "Almanak" (Opera House)*

||||| **Friday** |||||

10.00-11.00: Mukhanov: "*Instantons: thick wall approximation*"

11.00-11.30: *Break*

11.30-12.30: Steinhardt: "*Quo vadis Cosmology?*"

12.30-13.30: *Lunch*

13.30-14.30: de Rham: "*Cautionary cases of casual causality*"

14.30-15.00: *Break*

15.00: *NBIA Colloquium by David Gross*

FIN

(all talks are 45 min + 15 mins discussion and take place in Aud. A Blegdamsvej 17, unless otherwise mentioned.)