



SIMIS+ShanghaiTech Joint Seminar on Theoretical Physics

Time: 1.30 - 4 pm, Oct. 21, 2024

Location: Auditorium (18th floor), SIMIS
(淞沪路657号上海数学与交叉学科研究院18层报告厅)

Fernando Alday: The AdS Virasoro-Shapiro amplitude at high energies

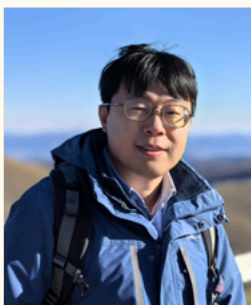
Abstract: I will describe recent progress in computing tree-level string amplitudes on curved AdS backgrounds, denoted AdS Virasoro-Shapiro amplitudes. In particular, we will discuss two limits, the Regge and high energy limits, where the amplitude can be computed in an explicit form.

Xinan Zhou: Correlators of N=4 SYM on real projective space at strong coupling

Abstract: I will consider 4d N=4 SYM on real projective space preserving half of supersymmetry and focus on the case where charge conjugation is gauged. The holographic dual of this setup is a Z_2 quotient of AdS $_5$ xS $_5$ with an O1 orientifold. I will discuss how to use analytic conformal bootstrap techniques to compute all two-point functions of 1/2-BPS operators of arbitrary weights at the leading order in the large central charge expansion.



Fernando Alday, FRS is Rouse Ball Professor of Mathematics in the Mathematical Institute, University of Oxford. He is renowned for the development of mathematical tools to understand fundamental questions in Quantum Field Theory and Quantum Gravity. Fernando is a recipient of the Royal Society's Wolfson Research Merit Award and the LMS Whitehead prize. Since 2020 he is Rouse Ball Professor of Mathematics and head of the Mathematical Physics Group at the University of Oxford. In 2022 he was elected member of the Royal Society.



Xinan Zhou did his undergraduate studies at University of Science and Technology of China, and obtained his PhD from the C. N. Yang Institute for Theoretical Physics at Stony Brook University in 2018. From 2018 to 2021, he was a postdoc fellow at the Princeton Center for Theoretical Science in Princeton University. He joined the Kavli Institute for Theoretical Sciences in University of Chinese Academy of Sciences in 2021. He has also been a visiting Assistant Professor at ShanghaiTech University since 2023. He is the recipient of the 2023 ICTP Prize.