



Boundaries and Defects in CFT and Holography March 28-29, 2022

Virtual on Zoom & In person for PU ID holders.
Registration required for all.

Program Organizers

Scott Collier
Simone Giombi
Vladimir Narovlansky
Bernardo Zan
Xinan Zhou

The study of boundaries and defects in quantum field theory has many important applications in a variety of contexts. In condensed matter, real world systems naturally involve boundaries and impurities which may be modelled as defects. In gauge theories, line and surface defects play a crucial role in understanding the non-perturbative dynamics. In a general conformal field theory, the presence of boundaries or defects partially breaks the conformal symmetry, resulting in a richer set of observables which are nevertheless constrained by consistency conditions. Via the AdS/CFT correspondence, defects in conformal field theory also have dual descriptions in terms of extended objects in quantum gravity. In recent years, much interesting progress has been made in the study of boundaries and defects in quantum field theory and holography. The aim of this workshop is to bring together experts in this field, take stock of the current progress and lay the groundwork for further advances.

Speakers

Nadav Drukker, King's College London
Davide Gaiotto, Perimeter Institute
Chris Herzog, King's College London
Shota Komatsu, CERN
Zohar Komargodski, Simons Institute
Dalimil Mazac, IAS
Max Metlitski, MIT

Mark van Raamsdonk, University of British
Columbia
Balt van Rees, Poly Technique
Shinsei Ryu, Princeton University
Volker Schomerus, DESY
Shu-Heng Shao, Stony Brook University
Yifan Wang, NYU