Physics Seminar: Alessio Miscioscia
Wednesday, September 4 . 2:00 – 3:00pm
Room 313

Title: Exploring thermal CFTs from a bootstrap perspective

Abstract: In this talk, I will present recent developments in the study of Conformal Field Theories (CFTs) at finite temperature. The motivation for this work is different applications to holography, black holes in AdS as well as statistical physics.Thermal dynamics are constrained by the Kubo-Martin-Schwinger (KMS) condition.I will present explicit sum rules for one-point functions, providing a basis for setting up a numerical bootstrap problem. The KMS condition can also be used to extract the leading behaviour of one-point functions for heavy operators analytically. Additionally, I will extend the thermal bootstrap approach to temporal line defects, akin to Polyakov loops in gauge theories. The power of this framework will be demonstrated with specific examples.