Virtual TEP Seminar

UCLA

Tuesday, May 5th @ 4PM
VIA ZOOM

"Anomalous Dimensions from Thermal AdS Partition Functions"

Per Kraus (UCLA)

We develop an efficient method for computing thermal partition functions of weakly coupled scalar fields in AdS. We consider quartic contact interactions and show how to evaluate the relevant two-loop vacuum diagrams without performing any explicit AdS integration, the key step being the use of Kallen-Lehmann type identities. This leads to a simple method for extracting double-trace anomalous dimensions in any spacetime dimension, recovering known first-order results in a streamlined fashion.