

Speaker: Taizan WATARI (Kavli IPMU, Japan)

Title: Periods of some meromorphic cuspforms and topology of K3-fibred threefolds

Abstract: Some of works in string theory in 90's hint that there must be some integrality in the periods of certain class of meromorphic cuspforms of weight-6 (see arXiv:2111.01575 for more information). It is also hinted that some of those periods must be related to topology of K3-fibred complex three-folds. This connection has been explored from math side to some extent already, but there are more to be excavated from those physics literatures. So, here we attempt at pinning down the math behind the scenes, and at partially proving it. This talk is based on a work in progress jointly with Enoki, Kondo and Sato.