

APCTP SEMINAR

On the Superconformal Index of Chern-Simons theories and their KK Spectrometry

Prof. Hyojoong Kim

December 7th (Tue.) 15:00 (KST)

Online via ZOOM

We study the large- N limit of superconformal index for two strongly interacting Chern-Simons theories in three dimensions with $N = 2$ supersymmetry, and compare the result against the AdS/CFT dual, namely the data of full Kaluza-Klein reduction spectra obtained using the exceptional field theory technique. The two theories of interest are mABJM and GJV theories, which are obtained as IR fixed point of RG whose UV description is ABJM and maximally supersymmetric Yang-Mills theory respectively. We confirm agreement and the duality persists. For the case of mABJM it turns out that we need a refinement of the gravity index which reflects the fact that the UV description on the field theory side has enhanced global symmetry.

■ ZOOM Webinar

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