NSYSU physics

書報討論 Weekly Seminar

Emergence of Space-Time and Matter from Matrix Model

Prof. Hikaru Kawai

Department of Physics, Kyoto University

Nambu Yoichiro Institute of Theoretical and Experimental Physics, Osaka Metropolitan University

14:10, Jun. 4 (Thu) 2026 at 物理館 PH2006

The Standard Model of elementary particles holds true with virtually no modifications down to the Planck scale, but when attempting to incorporate gravity—which becomes significant at the Planck scale and beyond, string theory appears to be the only viable option. On the other hand, perturbation theory is insufficient for discussing the true vacuum of string theory, and a non-perturbative formulation is required. Matrix models are a leading candidate for such a formulation, and we will discuss how spacetime and matter can be described using matrix models.

(This is the last Thursday seminar in this semester)