

Geometry, Physics, and Representation Theory  
Northeastern University

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Thursday, November 10, 2.50-3.50 pm, Lake Hall 509

**Asymptotic representation theory and free probability**

**Abstract.**

Asymptotic representation theory studies representations of groups of growing size; one of possible examples is the symmetric group of degree  $n$  as  $n \rightarrow \infty$ . It turns out that probability theory provides a natural language for many questions in this setting. The talk is devoted to some foundational results and a recent progress in the field with an emphasis on connections with random matrices and free probability.