

The Math Department Presents the

Taussky- TODD Lecture

WITH

PROF. MAYUKO YAMASHITA



Tuesday, October 6, 2026
Linde Hall 310
Talk starts at 4:00 PM*

Stable Homotopy Theory and Supersymmetric Quantum Field Theories

In this talk, I will explain the recent development in the Segal-Stolz-Teichner (SST) paradigm. The SST paradigm is a set of ideas connecting stable homotopy theory, especially the theory of elliptic cohomology theory, with supersymmetric quantum field theories in physics. Thanks to the recent mathematical development of equivariant elliptic cohomology theory, we are currently experiencing a great enrichment the SST paradigm.

In the first half of the talk I will explain the basic ideas on the SST paradigm, and in the second half I will explain my work on this topic, including the collaborations with Y. Tachikawa on heterotic string anomaly and with Y. Lin on Topological Elliptic Genera.

*Tea with speaker begins at 3:30 PM