スーパーグローバルコース数学特別講義 1
Mark Gross (University of Cambridge)

Date: 3, 4, 12, 13, 14 April 2023

Time: 10:00-12:00 (Hybrid lecture)

Venue: To be announced to participants only

Logarithmic geometry and mirror symmetry

The goal of this lecture series is to give an introduction to the program for understanding mirror symmetry introduced by myself and Siebert. In particular, we have recently given general constructions for mirrors of log Calabi-Yau manifolds with maximally degenerate boundary and Calabi-Yau manifolds equipped with a maximally unipotent degeneration. The key ingredient of these constructions is logarithmic Gromov-Witten theory, constructed by myself and Siebert as well as Abramovich and Chen.

The lectures will begin with a general introduction to logarithmic algebraic geometry and log and punctured Gromov-Witten theory. I will then explain the mirror constructions in terms of canonical wall structures as well as the more direct construction of "Intrinsic Mirror Symmetry". Finally, I will discuss ongoing work with Keel, Hacking and Siebert, applying these constructions to understand compactifications of the moduli space of K3 surfaces.

受講希望者は、Google form にて申込を行ってください。

オンライン受講者も申込が必要です。下記 URL または QR コードからアクセスしてください。

URL: https://forms.gle/QuWUPGmC21MwANEE9

締切日：3 月 30 日（木）16 時厳守

本講義はスーパーグローバルコース登録学生のコース終了要件の 1 単位となります。ただし、大学院科目として通常の単位に認定されるわけではありませんので注意してください。