

MSRI–Evans Talk

Monday, 4:10–5:00pm, 60 Evans

Nov. 23 **Mark Gross**, UC San Diego

A glimpse into the heart of mirror symmetry

Mirror symmetry is a phenomenon first discovered by string theorists circa 1990, suggesting an intimate relationship between different sorts of geometry on two very different manifolds, and resulting in spectacular mathematical predictions.

Since then, a great deal of effort has gone into understanding this relationship. Since 2001, I have been engaged in a program with

Bernd Siebert dedicated to providing a conceptual underpinning for the many varied phenomena of mirror symmetry.

The structures involved in mirror symmetry can be extremely complex, making it relatively difficult to explain it. However, in this talk, I will present work of myself, Pandharipande, and Siebert, which gives a simple but surprising example, and which we believe lies at the heart of a conceptual explanation of mirror symmetry.