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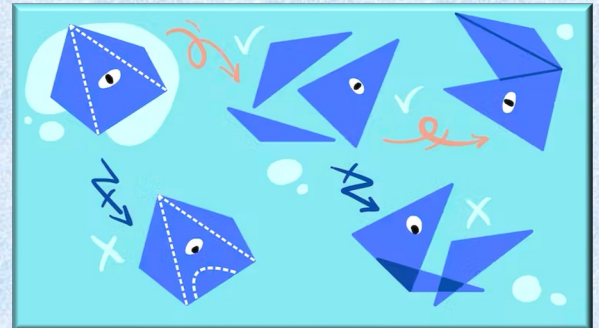
DEPARTMENT OF MATHEMATICS AND STATISTICS



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# Kaori Kitao Lecture



## Scissors congruence and algebraic K-theory

The classical scissors congruence problem asks: given two polyhedra in Euclidean space, can one cut one polyhedron into a finite number of smaller polyhedra, and reassemble these to form the other polyhedron? In dimension 3 this is Hilbert's third problem. In high dimensions this is still an open question. In this talk we will describe a way to formalize scissors congruence in terms of the modern toolkit of algebraic K-theory and describe applications of this framework to different geometric situations. This talk will not assume any background, the aim being to offer some intuition into how the ancient scissors congruence idea, which goes at least back to Euclid, can be generalized and studied in present-day mathematics.

**Tues. Oct. 24**

**Refreshments: 4:15pm**

**SC 101**

**Lecture: 4:30pm**