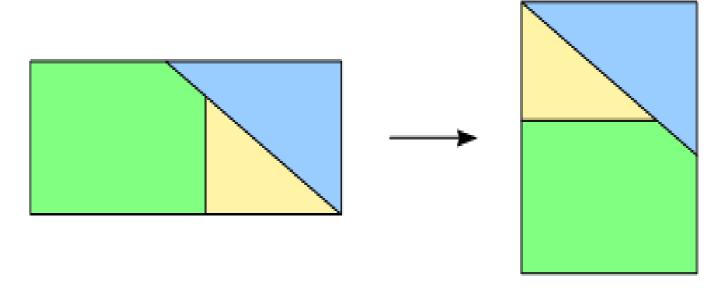
## The SUMO Speaker Series for Undergraduates

Thursday, November 13th
4:15-5:05, room 380C
(Food Provided)
Polygons, polyhedra and scissors congruence



## **Professor Christian Zickert**

## **Abstract:**

Given two polygons in the plane, one can ask if it is possible to cut one into finitely many pieces that can be reassembled to form the other. If so, the polygons are called scissors congruent. A rather surprising fact, already known to the Greeks, is that two polygons are scissors congruent if and only if they have the same area. In particular, this implies that you can construct any polygon you like starting with a square. One can ask the same question in 3 dimensions, but there it turns out to be false. You can not form a tetrahedron from a cube by scissors congruence.

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