

Undergraduate Mathematics Colloquium

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Shape Shifting:

Things you can and cannot do via cut and paste

Friday January 20

Talk at 4:00 in Herman Brown 227

Tea at 3:30 in Herman Brown 438

ABSTRACT:

How can we see that two shapes have the same area? One simple method would be to see if we can cut one of them into finitely many pieces, and then move the pieces around so that they exactly cover the second shape. If we have two polygons that have the same area, can we always tell that they have the same area by using this method? We'll play around with this question and some of its generalizations, which will lead us to some interesting places, including one of Hilbert's problems...

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