The Olivetti Club Presents

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Tuesday 4:15 pm
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406 Malott

Good news, everyone!

Group actions, torsors, and affine space

Group actions are pervasive in many areas of mathematics, and they are really cool. Torsors are a particularly nice kind of group action, which make appearances in a wide variety of places. Among other things, they provide a neat vehicle for giving formal definitions of affine and Euclidean space.

I will give a brief introduction to group actions and torsors, and give some examples. I will also discuss the similarities and differences between $\mathbb{R}^n$, arbitrary n-dimensional vector spaces, n-dimensional affine spaces, and Euclidean space.

No background knowledge beyond linear algebra and the definition of a group will be assumed.

Refreshments will be served at 3:45 pm in the math lounge.