Butterfly wings, snowflakes, and Romanesco cauliflower are all great examples of the beautiful symmetry found in nature. But symmetry also has a second life as a powerful tool for reducing the complexity of mathematical problems. In this talk I'll introduce this second life of symmetry and highlight some of its unlikely applications, including a very impractical scheme to get rich by reassembling broken eggshells.

Lunch will be available to colloquium participants after the talk.