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CENTRALIZER RIGIDITY

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In classical mechanics, symmetry occurs for a reason: there is a conserved quantity such as angular momentum. This is Noether's theorem, and it points to a broader theme in dynamics that symmetry is rare and meaningful. In this course, I will discuss, in the contexts of modern dynamics and geometry, how this theme recurs in beautiful ways: on the one hand, a typical object has the minimum amount of symmetry possible, and on the other hand, a little extra symmetry implies a lot of symmetry, a phenomenon known as centralizer rigidity. The focus will be on techniques and examples and will draw from recent work with Danijela Damjanović and Disheng Xu.