Matt Ballard:Â **Orlov spectra in algebraic geometry and beyond**

Here is a basic question. Take your favorite finite set A of n \times n matrices over \C. Call this an alphabet if every matrix can be written as a linear combination of products (words) in A. How long is the longest word? How about if we take the maximum over all A?
The Orlov spectrum of a triangulated category captures exactly this data when we use cones for products. It is notoriously difficult to compute thanks to a failure of additivity but existing results offer a testament to its appeal. In this talk, I will introduce the Orlov spectrum, discuss some examples and conjectures. Themes to be touched on include: rationality, Hall algebras, and braid groups. Some results are joint with David Favero and Ludmil Katzarkov.