

## **Michael Dougherty**

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"Graphs, Braids, and Configuration Spaces"

Monday, April 25, 2022
Talk at 4:00 (In-Person)
KINSC Hilles 109

## **Abstract:**

How can we model an ensemble of objects moving through a plane without colliding? What kind of motions are allowed when the objects are constrained to a graph instead? Is there a shape to the set of complex polynomials with distinct roots? Each of these questions can be understood and answered using a topological object known as a "configuration space". In this talk, we will explore a few examples of these spaces and discuss their associated combinatorics and geometry.

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