

Otto-von-Guericke-Universität Magdeburg  
Fakultät für Mathematik

Auf Einladung des Institutes für Algebra und Geometrie spricht

Herr Michael Dougherty  
(Swarthmore College, Pennsylvania USA)

über das Thema

## Geometric Combinatorics for Polynomials

**Zoom-Koordinaten:** <https://ovgu.zoom.us/j/95199662620>  
Meeting ID: 951 9966 2620 / Passcode: 461614

**Zeit:** Dienstag, 15. Dezember 2020, 14.00 Uhr

Zu diesem Vortrag laden wir alle Interessierten herzlich ein.

Prof. Dr. Petra Schwer

**Abstract:** The space of complex polynomials with  $n$  distinct roots is a fundamental object in many branches of mathematics, but it is not obvious how to concretely articulate the shape of this space. In this talk, I will present a combinatorial perspective for polynomial maps and describe a cell structure for this space of polynomials, along with a deformation retraction onto a subspace of much smaller dimension. We will also discuss connections from our work to the ideas of Bill Thurston and his collaborators. This is joint work with Jon McCammond.