

1154-30-2524 **Michael Dougherty*** (michael.dougherty@colby.edu) and **Jon McCammond**. *The Intrinsic Noncrossing Combinatorics of the Space of Generic Complex Polynomials*. Preliminary report.

The space of degree- n complex polynomials with distinct roots appears frequently and naturally throughout mathematics, but its shape and structure could be better understood. In recent and ongoing joint work with Jon McCammond, we present a deformation retraction of this space onto a simplicial complex with rich structure given by the combinatorics of noncrossing partitions. In this talk, I will describe the deformation retraction and the resulting combinatorial data associated to each generic complex polynomial. We will also discuss a helpful comment from Daan Krammer and connections from our work to the ideas of Bill Thurston and his collaborators. (Received September 17, 2019)