# MEASURING DEGENERATIONS OF ARRANGEMENTS IN EQUIVARIANT COHOMOLOGY

## R. RIMÁNYI

ABSTRACT. Consider a family of hyperplane arrangements parametrized by a base space $B$; and fix a combinatorial type $S$. The global topological structure of the family may force that over certain points of $B$ the arrangement has type $S$. The cohomology class in $B$ represented by these points can be calculated using a multivariate polynomial only depending on $S$, if we substitute the characteristic classes of the family. This so-called Thom polynomial associated with an arrangement $S$ is the topic of the lecture. In modern language the Thom polynomial is the equivariant Poincaré dual of the closure of the combinatorial type $S$ in the space of arrangements. We will discuss its origin (singularity theory, Schubert calculus), calculational approaches, and applications. This is a work in progress with L. M. Fehér (Budapest), A. Némethi (Budapest).

DEPARTMENT OF MATHEMATICS, UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL, USA
*E-mail address*: rimanyi@email.unc.edu