

Department of Mathematics and Statistics

COLLOQUIUM Tuesday, March 22nd, 2016

4:00 – 5:00 pm, Adel Mathematics Bldg., Room 164 (refreshments at 3:45)

Michael Falk NAU

Milnor fibers of arrangements

Abstract: We describe the main ideas involved in a recent proof of an old conjecture, that the first betti number of a certain affine variety associated with an arrangement of hyperplanes can be computed from combinatorial data. The focus will be on some of the geometric tools, namely, good compactifications of algebraic surfaces, Hodge theory, circle actions on three-manifolds, and plumbing, as time permits.