Department of Mathematics and Statistics

COLLOQUIUM
Tuesday, March 7th, 2017
4:00 – 5:00 pm, Adel Mathematics Bldg., Room 164
(refreshments at 3:45)

Dr. Michael Falk
NAU

Resolution of singularities and the Milnor fiber boundary

Abstract: We describe some of the ingredients in a computation of the first betti number of the solution set F to the equation $Q(x,y,z)=1$, where Q is a product of homogeneous linear forms and x, y, and z are complex variables. We begin with the notion of blow-up, which is used to resolve singularities. We proceed to analyze a neighborhood of the "boundary divisor" of a certain compactification of F obtained by blowing up a singular surface. This open 4-manifold has a description in terms of an operation on disk bundles over surfaces called "plumbing," which we will sketch (literally), if time permits, and which can then be used to compute the first betti number of F (in principle).

Algebra Combinatorics Geometry and Topology (ACGT) Seminar meets every Tuesday, 12:45 – 1:45 pm, AMB 146.

Applied Math Seminar (AMS) meets every Thursday, 12:45 – 1:45 pm, AMB 146.
Phillip Doi will present this Thursday over "a large class of topological dynamics and their relation to so-called classical dynamical systems."

Friday Afternoon Undergraduate Mathematics Seminar (FAMUS) meets Fridays, 3pm, AMB 164.