Knots, Links and Singularities

Tim Cochran

We will discuss how the sets of solutions of polynomial equations f(z, w) = 0 over the complex numbers can have "singularities" and that to such a singularity one can associate a knot or link! Here a knot or link is a collection of circles embedded in 3-dimensional Euclidean space. The rest of the talk will focus on how one can attach numerical and algebraic invariants to knots and links in order to classify them.