"The link of a singularity"

Abstract:
Starting with the classical case of (complex) plane curves, I will introduce the link of a singularity and discuss some examples. In the second part of the talk, I will look at the case of surface singularities and present a criterion of simplicity, due to Mumford, which provides a characterization of smoothness of a complex surface in terms of the topology of its link. While the talk in primarily aimed to graduate students, it should be accessible to advanced undergraduate students with some familiarity with basic notions from topology such as the fundamental group and topological surfaces.