A proof of A. Gabrielov's rank Theorem

Abstract:

This talk concerns Gabrielov’s rank Theorem, a fundamental result in local complex and real-analytic geometry, proved in the 1970’s. Contrasting with the algebraic case, it is not in general true that the analytic rank of an analytic map (that is, the dimension of the analytic-Zariski closer of its image) is equal to the generic rank of the map (that is, the generic dimension of its image). This phenomena is behind several pathological examples in local real-analytic geometry. Gabrielov’s rank Theorem provides a formal condition for the equality to hold.