Degenerate CR singularities and polynomial convexity of real submanifolds in $\mathbb{C}^n$

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Abstract: We will discuss some notions of degeneracy for CR singularities of an m-dimensional real submanifold M in $\mathbb{C}^n$, when $m \geq \frac{2}{3}(n+1)$. Our geometric interpretations of these degeneracies allows us to compute the dimensions of the loci of such degeneracies when M is in general position. This yields an application to the problem of finding the minimum complex dimension n such that all closed m-dimensional real manifolds admit polynomially convex embeddings into $\mathbb{C}^n$. This is joint work with Rasul Shafikov.