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Adam Coffman* (CoffmanA@ipfw.edu), Department of Mathematical Sciences, IPFW, 2101 E. Coliseum Blvd., Fort Wayne, IN 46805-1499. *Unfolding CR singularities of real 4-manifolds in \mathbb{C}^5* . Preliminary report.

A real 4-submanifold in \mathbb{C}^5 is “CR singular” at a point where the tangent space contains a complex line. The local extrinsic geometry of a real analytic embedding near a CR singularity is studied by finding a normal form for the defining equations under biholomorphic transformations. We also consider one-parameter families of embeddings, and find a normal form for a family exhibiting a cancellation of a pair of CR singularities. (Received February 04, 2006)