1132-57-213 **Adam Coffman*** (coffmana@ipfw.edu), IPFW Dept. of Math. Sci., 2101 E. Coliseum Blvd., Fort Wayne, IN 46805, and **Jiří Lebl**. *Perturbations of maps with isolated zeros.* Preliminary report.

Suppose a continuous map $\vec{f} : \mathbb{R}^n \to \mathbb{R}^q$ has a level set with an isolated point, and that there is no topological obstruction to removing the isolated point by a small perturbation $\vec{g}$ near $\vec{f}$. An example is a vector field $\vec{f} : \mathbb{R}^2 \to \mathbb{R}^2$ with an isolated zero of index zero. We consider the problems of constructing such a $\vec{g}$, and a homotopy from $\vec{f}$ to $\vec{g}$, in cases where $\vec{f}$ is semialgebraic, real analytic, or polynomial. For $q = 2$, we use complex variable and PDE methods to establish existence and regularity. (Received July 22, 2017)