1147-37-405   **Sara W Lapan*** (`slapan@ucr.edu`), CA. *Local dynamics of a map tangent to the identity.*

In this talk, I will discuss holomorphic self-maps of $\mathbb{C}^2$ that fix the origin and are tangent to the identity (i.e., $f(0) = 0$ and $df(0) = \text{Id}$). I will introduce an example of such a map that has 3 characteristic directions at the origin (i.e., $f([v]) = [v]$), but that does not have a domain of attraction along any of those directions. I will show some some interesting behavior that occurs along one of its directions. In addition, I will discuss how adding higher degree terms to this map will sometimes enable a domain of attraction to exist along one of its characteristic directions. (Received January 22, 2019)

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