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**Sara Lapan\*** (slapan@ucr.edu). *Existence of a domain of attraction along a characteristic direction of higher degree.*

In this talk, we will consider holomorphic self-maps of  $\mathbb{C}^2$  that fix the origin and are tangent to the identity (e.g.,  $f(0) = 0$  and  $df(0) = \text{Id}$ ). We are interested in how points near the origin move under iteration. Do they converge to the origin and, if so, do they converge along a direction? When this happens, such a direction must be a characteristic direction. We will discuss what is known in  $\mathbb{C}^2$ , focusing on degenerate characteristic directions and the role that higher degree terms can play in the existence of a domain of attraction along those directions. (Received August 27, 2018)