1153-37-512 **Sara Lapan*** (slapan@ucr.edu), Riverside, CA , and **Feng Rong**. *Existence of attracting domains in $\mathbb{C}^3$ for some holomorphic maps tangent to the identity.*

In this talk, I will discuss holomorphic self-maps of $\mathbb{C}^3$ that fix the origin and are tangent to the identity (i.e., $f(0) = 0$ and $\mathrm{d}f(0) = \mathrm{Id}$). A well-known result of Hakim states that for such a map, if all directors of a characteristic direction have strictly positive real part, then there is a domain of attraction along that direction while such a domain does not exist if any of the directors have negative real part. I will introduce a family of maps that lie on the border line case where the directors have trivial real part. For this family, I will show that a domain of attraction does exist. Time permitting, I will show that small changes to the family can affect whether or not a domain of attraction exists. (Received September 03, 2019)