



Colloquium

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DYNAMICS OF HOLOMORPHIC SELF-MAPS NEAR A FIXED POINT

Tuesday, January 31, 2012

4:15 p.m. in ES-143

(tea & coffee at 3:30 p.m. in ES-152)

ABSTRACT. The local dynamics of holomorphic self-maps of \mathbb{C}^n around a fixed point has been an object of study since the time of Schröder, Fatou and Julia. In this talk we will explain the results known for $n = 1$ and the partial known results for $n > 1$. We will focus in the case $n = 2$ and of maps tangents to the identity, that is, when the derivative of our self-map at the fixed point is the identity. In this case the usual tools of linearization introduced by Poincaré are not possible to use and some new techniques are required.