1064-37-90 **Rodrigo Parra*** (rparra@umich.edu). *Equidistribution to the Green current.*

In this talk I will breafly describe the problem of equidistribution in holomorphic dynamics on the complex projective space. More precisely, given a holomorphic map $f : \mathbb{P}^k \to \mathbb{P}^k$ of algebraic degree $d \geq 2$ then there exist a positive closed (1,1)-current T_f which is invariant (i.e. $f^*T_f = dT_f$) and supported on the Julia set of f. We will try to address the following question: If S is a positive closed (1,1)-current of mass 1, when does the sequence $d^{-n}(f^n)^*S$ converges to T_f? This is always true if S is smooth and is always false if S is the current of integration of a totally invariant hypersurface. This question has been answered in dimensions $k = 1$ and 2 and I will describe some partial results recently obtained in higher dimensions. (Received August 31, 2010)