Siegel disks Jean-Christophe Yoccoz

Collge de France.

I will review various aspects of quasiperiodic dynamics in one complex variable, with special emphasis on the fascinating interplay between qualitative properties of the dynamics and diophantine arithmetic conditions on the rotation number. I will in particular discuss the recent work of X.Buff and A.Chritat leading to the construction of Julia sets of positive measure for certain quadratic polynomials.