

Gabriela ESTEVEZ, UFF, Brazil

Title: Recent advances in multicritical circle maps

Abstract: In 1984 Yoccoz proved that any two smooth orientation-preserving circle homeomorphisms, with the same quantity of non-flat critical points and the same irrational rotation number, are topologically conjugated. For maps with only one critical point, it has been shown that the conjugacy is, in fact, a C^1 -diffeomorphism. Moreover, in a total Lebesgue measure set of irrational rotation numbers the conjugacy can be improved to be $C^{1+\alpha}$.

In this talk we will discuss some classic and new results, including some recent progress, concerning the smoothness of the conjugacy for maps with more than one critical point.