



# Seminário de Sistemas Dinâmicos da UFF

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## PARABOLIC-LIKE MAPPINGS

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### Resumo

A polynomial-like mapping is a proper holomorphic map  $f : U' \rightarrow U$ , where  $U$  and  $U'$  are isomorphic to disks, and  $U'$  is compactly contained in  $U$ . This definition captures the behaviour of a polynomial in a neighbourhood of its filled Julia set.

A polynomial-like map of degree  $d$  is determined up to holomorphic conjugacy by its internal and external classes, that is, the (conjugacy classes of) the restrictions to the filled Julia set and its complement. In particular the external class is a degree  $d$  real-analytic orientation preserving and strictly expanding self-covering of the unit circle: the expansivity of such a circle map implies that all the periodic points are repelling, and in particular not parabolic.

We extended the polynomial-like theory to a class of parabolic mappings which we called parabolic-like mappings. In this talk we present the parabolic-like mapping theory.