ASYMMETRIC UNIMODAL MAPS: FEIGENBAUM-COULLET-TRESSER COMBINATORICS WITH UNEXPECTED SCALINGS

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In this talk I will discuss families of unimodal maps which are asymmetric at the critical point: from one side of the critical point the map is asymptotically of the form $f(x) = x^{\alpha} + f(0)$ while from the other side $f(x) = x^{\beta} + f(0)$ where $1 \leq \alpha < \beta$. I will discuss the question whether bifurcations occur monotonically within such families (as in the quadratic family) and describe the unexpected scaling which occurs for the Feigenbaum-Coullet-Tresser map. This talk is based on joint work with Oleg Kozlovski.