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Title: Global bifurcation for a 1-D curvature problem: regularity versus formation of singularities.

Abstract: Our aim is to establish the existence of global components of positive bounded variation solutions of a 1-dimensional prescribed curvature problem, as well as to investigate the mechanism of transition from regular to singular solutions along such components. Through a precise description of the asymptotic profile of the solutions we can characterize the appearance of singular solutions. This talk reports on a joint research with Julian Lopez-Gomez.