

Deformation in higher dimensions

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Rickman's Picard construction (1985) has three main methods which are ubiquitous in his later work on constructions: caving, deformation, and sheets.

The deformation we may understand as a construction of three dimensional branched covers extending planar Alexander maps, or equivalently as branched cover homotopies between planar Alexander maps. In three dimensional constructions of quasiregular maps, deformation provides an important extension method.

In this talk I will discuss Rickman's deformation methods in higher dimensions. Although some of the flexibility of the two dimension theory is lost, we recover Rickman's result on the normal form for Alexander maps which stems from canonical triangulations of shellable cubical complexes. This is joint work with Jang-Mei Wu.
