Conformally Induced Mean Curvature Flow

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Contents

Abstract

This thesis aims to loosly cover the subject of geometric flows, and more specifically a variant of the mean curvature flow. The subject of geometric flows uses results in PDE theory theory, more specifically parabolic PDEs, to gain new insight about Riemannian geometry. One of the biggest problems often tackled by mean curvature flows is the Isoperimetric problem. The Isoperimetric problem asks us to classify the spaces that minimize perimeter for a given volume (hence the name)

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Contribution

This thesis and each chapter within was written solely by myself, with occasional assistance from colleagues regarding phrasing. The body of the thesis is largely taken from the paper co-authored by myself and Joshua Flynn.

Introuction

This thesis covers mean

Review of Literature

The field of Geometric Analysis is one vast with techniques and ideas to solve the hardest of problems relating geometric spaces and Partial Differential Equations (PDEs). One of the most influencial techniques of the last couple of decades has been that of the geometric flow,

Bibliography