Geometric Signatures for Fast Shape Processing

Keith Clawson, Kevin R. Vixie, Sharif Ibrahim, Heather Van Dyke, Benjamin Van Dyke and Thomas J. Asaki
Washington State University

Abstract

Geometric measure theory is just beginning to be exploited for its large potential to streaming data analysis. Recently, it has been used to develop a variety of promising tools for various sorts of data. Our interest in this problem spans theory and the application of this theory to analysis of streaming images. In this work, we demonstrate new multiscale signatures as well as fast surrogates for those signatures that permit processing of streaming data.