

Dynamic Geometry Processing

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Abstract

Throughout the last few years, acquisition and processing of dynamic geometry has already received quite an amount of attention in the computer vision and graphics research community. Recently, the topic has gained a significant boost due to the availability of commodity devices for dynamic geometry acquisition: The introduction of the Microsoft \S Kinect \ddagger device made this kind of technology broadly available, being very well received by both researchers and end-users, and even more development in this direction can probably be expected for the near future. The tutorial on \S Dynamic Geometry Processing \ddagger considers the problem of processing such dynamic range data effectively and efficiently. The tutorial introduces basic processing techniques for analyzing and matching range data. It introduces models for correspondence estimation and presents the according basic algorithmic building blocks. Furthermore, it discusses the current state-of-the-art by looking at example approaches for processing and real-time tracking of dynamic data. In addition, the tutorial will also identify and discuss future challenges in the field, aiming at inspiring future work in this exciting area of research.
