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Matching 3D Point Clouds

Abstract:

I will present three deep learning algorithms for registering 3D point clouds in different settings. The first is designed to find a rigid transformation between point clouds and is based on the concept of best buddies similarity. The second algorithm offers a fast method for non-rigid dense correspondence between point clouds based on structured shape construction. Finally, I extend the second algorithm to handle scene flow estimation that can be learned on a small amount of data without employing ground-truth flow supervision.