先端科学技術研究科　修士論文要旨

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要旨

Depth from Focus (DFF) is a method for estimating depth by using images captured at different focus distances. Deep learning-based DFF methods estimate depth at a metric scale; however, they are limited in accuracy due to the limited amount of training data. To address this issue, this study proposes a DFF method with higher accuracy than conventional DFF methods by leveraging prior knowledge from monocular depth estimation (MDE) models trained on large-scale datasets. Specifically, the output of a conventional DFF method is used as a reference at test time, and the parameters of the MDE model are optimized on a per-scene basis. Experiments on both synthetic and real-world image datasets demonstrate that the proposed method outperforms conventional DFF methods.