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GETTING SIZE SCALE FROM A SINGLE MOVING UNDERWATER CAMERA

Unmanned underwater vehicle (UUV) technology is increasingly being used for ocean research and exploration. UUVs include remotely operated vehicles (ROVs) and autonomous underwater vehicles (AUVs). One of the opportunities this technology offers is the rich use of video and imagery for qualitative assessments of marine life. But there is also a growing future need for cost-effective tools for quantitative assessment of ocean resources in support of better resource management. A particular challenge is the development of cost-effective tools to provide 2D size information about objects imaged or recorded during mid-water survey transects by UUVs. In this paper we describe a simple, practical, and accurate algorithm for determining the size scale of mid-water organisms during transects by such systems using a single moving camera.

SS6.02 SS6.05 SS6.06
Poster
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