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Shadow segmentation using time-of-flight cameras

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Abstract

Time-of-flight (TOF) cameras are primarily used for range estimation by illuminating the scene through a TOF infrared source. However, additional background sources of illumination of the scene are also captured in the measurement process. This paper uses radiometric modelling of the signals emitted from the **camera** and a Lambertian reflectance model to develop a **shadow segmentation** algorithm. The proposed model is robust and is experimentally verified using real data. © 2011 Springer-Verlag.

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Radiometric Modelling; Reflectance Modelling; **Shadow Segmentation**; **Time-of-flight**

Index Keywords

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Engineering controlled terms: Cameras; Image analysis; Light sources; Radiometry; Reflection
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