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Summary

This article discusses a developed method for rendering self-shadows with general GPUs. Given that shadowing is a fairly significant factor in providing photorealism in graphics, improvements upon the development of such is necessary for that portion of the industry. This method centers around dynamic height fields, and more specifically dynamic light environments, rendering such shadows in real time, which the authors propose does so at a faster pace than previously proposed methods. Taking a height and environment map as input, a color map is outputted, which describes the output radiance of the dynamic height field, and in turn effectively helps provide the cues needed to perceive an object's shape and position. The method is described as "more general" by the authors in comparison to others as well, allowing it to be used in a variety of situations, as well as other calculations, including ambient occlusion.