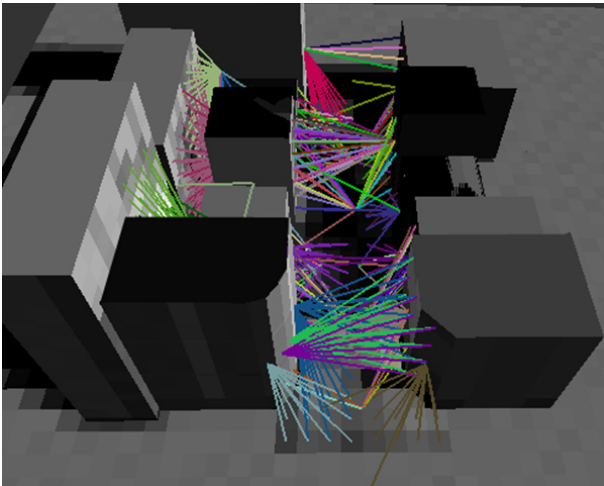


# Hierarchical Radiosity for Procedural Urban Environments

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In this paper we present a novel solution for the computation of diffuse global illumination in urban environments that takes advantage of the underlying structure of the procedural building models used for generating the city, using them to compute a realistic global illumination solution based on the well known hierarchical radiosity algorithm. As we generate the geometry procedurally, we take advantage of the generation hierarchy to be the base of the hierarchical radiosity algorithm, without using the classic quad-based subdivision scheme. This structure is used for low-frequency global illumination, being later combined with a

shadow-map-like system for the highfrequency component, thus resulting in a complete global illumination solution for procedural urban environments.