The function \( S_i(x, x_i) \) is the superposition of the local field functions for each node. The surface is bound by the convex hull of the local field functions, which is guaranteed to be pixel-accurate. For small to medium-sized scenes, our technique provides real-time frame rates. For scenes with many nearby nodes, we approximate the contribution of most of the nodes by an ambient field. This field is precomputed on the CPU and stored in video memory. Avoiding pixel artifacts is important for the intersection test, in contrast to previous GPU-based ray casting engines where closed surfaces are represented. For scenes with a limited number of nodes where no ambient field is needed, we achieve real-time frame rates. Currently, the two main limitations are: (1) the number of nodes must be employed for the intersection test, in contrast to previous GPU-based ray casting engines where closed surfaces are represented. For scenes with a limited number of nodes where no ambient field is needed, we achieve real-time frame rates. Currently, the two main limitations are: (1) the number of nodes...