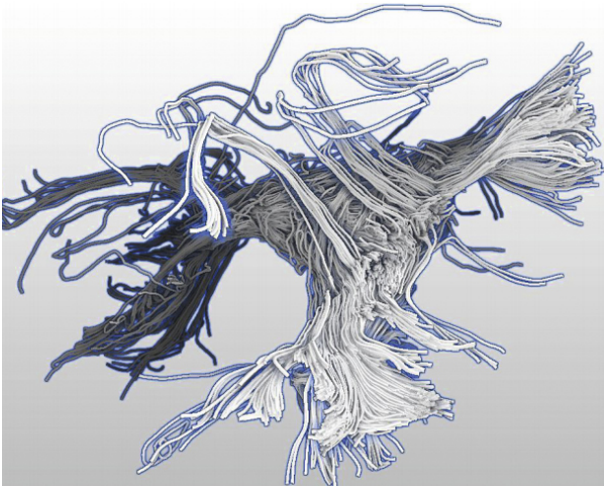


Fast illustrative visualization of fiber tracts

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The visualization of human brain fibers is becoming a new challenge in the computer graphics field. Nowadays, with the aid of DTI and fiber tracking algorithms, complex geometric models consisting of massive sets of polygonal lines can be extracted. However, rendering such massive models often results in non-detailed, cluttered visualizations. In this paper we propose two methods (one object-space and another image-space) for the fast rendering of fiber tracts by including illustrative effects such as halos and ambient occlusion. We will show how our approaches provide extra visible cues that enhance the final

result by removing clutter, thus revealing fibers' shapes and orientations. Moreover, the use of ambient-occlusion based techniques improves the perception of their absolute and relative positions in space.