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(54) **Recognition and pose determination of 3D objects in multimodal scenes**

(57) The invention provides a method for recognizing instances of a 3D object in 3D scene data and scene intensity data and for determining the 3D poses of said instances comprising the following steps: (a) providing 3D object data and obtaining object intensity data; (b) providing 3D scene data and scene intensity data; (c) extracting scene feature points from the intensity data; (d) selecting at least one reference point from the 3D

scene data; (e) computing, for each selected reference point, pose candidates for the 3D object under the assumption that said reference point is part of the 3D object by maximizing the number of extracted scene feature points that are consistent with the 3D object under the given pose candidate; (f) computing a set of filtered poses from the pose candidates.

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