

ABSTRACT

A data processing method includes steps of: receiving a plurality of first and a plurality of second scanned data, which respectively correspond to a first and a second position range in a preset environment; sparsifying the first and second scanned data according to a relation graph
5 to generate a plurality of first and a plurality of second sparsified data; uniformly sampling the first and second sparsified data according to a first voxel size to generate a plurality of first and a plurality of second sampled data; generating a plurality of smoothed data according to the first and second sampled data; dividing the smoothed data into a plurality of data clusters; optimizing relative relations of the data clusters and obtaining a state matrix; optimizing relative
10 relations of a plurality of nodes in each data cluster; and generating a point cloud map information according to the data clusters.

FIG. 1