ABSTRACT

A point cloud is represented by a plurality of cuboid volumes, and an occupied cuboid volume is modelled by one or more triangles. At least one triangle has at least one respective vertex on an edge of the occupied cuboid volume. The geometrical information including presence flags signaling a presence of a vertex. A method of encoding geometrical information of a geometry of a point cloud into a bitstream is includes for a current edge: constructing contextual information based on one or more or all of the following: occupancy information of neighboring cuboid volumes that abut the current edge, and vertex positional information of already-coded neighboring edges of the current edge, the neighboring edges being edges having a point in common with the current edge, using the contextual information to select a coding probability of an entropy coder, and encoding, by the entropy coder and using the selected coding probability, a presence flag for the current edge.

Fig. 7