

ABSTRACT

LOADING SPACE RECOGNITION APPARATUS, SYSTEM, METHOD, AND PROGRAM

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To provide a loading space recognition apparatus and the like that can contribute to determining a possibility that load collapse occurs by movements of baggage. It includes: a baggage overall image estimation part configured to estimate an overall image of baggage loaded in a loading space based on three-dimensional data obtained by imaging the loading space of the baggage from a predetermined direction to output the overall image as estimation result data; a voxelization part configured to voxelize the estimation result data to output the voxelized estimation result data as voxel data; and a determination part configured to estimate a fluctuation volume amount or a movement amount of the baggage by comparing a voxel data at an arbitrary reference time with a voxel data after a predetermined or arbitrary time has elapsed from the reference time and determine whether or not there is a possibility of load collapse by comparing the fluctuation volume amount or movement amount, as estimated, with a threshold.

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[Fig. 11]