Title (en)

SYSTEMS AND METHODS FOR STRUCTURALLY ANALYZING AND PRINTING PARTS

Title (de)

SYSTEME UND VERFAHREN ZUM STRUKTURELLEN ANALYSIEREN UND DRUCKEN VON TEILEN

Title (fr)

SYSTÈMES ET PROCÉDÉS D'ANALYSE STRUCTURELLE ET D'IMPRESSION DE PIÈCES

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Abstract (en)

[origin: WO2018031594A1] The present disclosure provides methods and systems for performing analysis on a part for printing. The method may comprise receiving, in computer memory, a computer model of the part and partitioning the computer model of the part into at least (i) a first region comprising one or more voids and (ii) a second region that is filled with a representation of a material for forming the part, to yield a partitioned computer model. At least a first mesh may be generated in the first region and at least a second mesh may be generated in the second region to yield a mesh array in the partitioned computer model. The mesh array, including the first mesh and the second mesh, may be to determine one or more properties of the part. The mesh array may be used to generate a print head toolpath usable to print the part.

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