

Title (en)

METHOD FOR SIMULATING FORCES APPLIED TO A WING IN A FLUID FLOW

Title (de)

VERFAHREN ZUR SIMULATION VON AUF EINEN FLÜGEL AUSGEÜBTEN KRÄFTEN IN EINEM FLUIDSTROM

Title (fr)

PROCEDE DE SIMULATION DE FORCES APPLIQUEES A UNE AILE DANS UN ECOULEMENT DE FLUIDE

Publication

EP 3566156 A1 20191113 (FR)

Application

EP 18700536 A 20180104

Priority

- FR 1750153 A 20170106
- EP 2018050214 W 20180104

Abstract (en)

[origin: WO2018127538A1] The invention relates to a method implemented by a computer for the real-time simulation of a force and/or of a moment applied to a wing in a fluid flow, wherein the body is previously modelled by at least two scalar and vector point sources of a velocity field, said method comprising at least one of the steps consisting of assessing at least one element selected among a force and a moment, through a linear function dependent on the main velocity vector V of the flow, at least one flow rate, referred to as the scalar mass flow rate λS , and at least one flow rate, referred to as the vector mass flow rate λR , associated with said sources, on at least one point corresponding to one of said sources.

IPC 8 full level

G06F 17/50 (2006.01)

CPC (source: EP US)

G06F 30/15 (2020.01 - EP US); **G06F 30/20** (2020.01 - EP); **G06F 30/23** (2020.01 - EP US); **G06F 2113/08** (2020.01 - US); **G06F 2113/28** (2020.01 - EP US); **G06F 2119/14** (2020.01 - US)

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

WO 2018127538 A1 20180712; CA 3049316 A1 20180712; EP 3566156 A1 20191113; FR 3061770 A1 20180713; FR 3061770 B1 20190726; US 11615220 B2 20230328; US 2019354657 A1 20191121

DOCDB simple family (application)

EP 2018050214 W 20180104; CA 3049316 A 20180104; EP 18700536 A 20180104; FR 1750153 A 20170106; US 201816475976 A 20180104