

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau

(43) International Publication Date
10 March 2022 (10.03.2022)



(10) International Publication Number
WO 2022/051197 A1

(51) International Patent Classification:

G06F 30/20 (2020.01) G06F 113/18 (2020.01)
G06F 30/39 (2020.01) G06F 119/18 (2020.01)
G03F 7/20 (2006.01)

(21) International Application Number:

PCT/US2021/048124

(22) International Filing Date:

30 August 2021 (30.08.2021)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

63/075,223 07 September 2020 (07.09.2020) US
17/228,260 12 April 2021 (12.04.2021) US

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(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BN, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DJ, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IR, IS, IT, JO, JP, KE, KG, KH, KN, KP, KR, KW, KZ, LA, LC, LK, LR, LS, LU, LY, MA, MD,

(54) Title: SYSTEM AND METHOD FOR ACCELERATING PHYSICAL SIMULATION MODELS DURING MICROELECTRONIC DEVICE FABRICATION

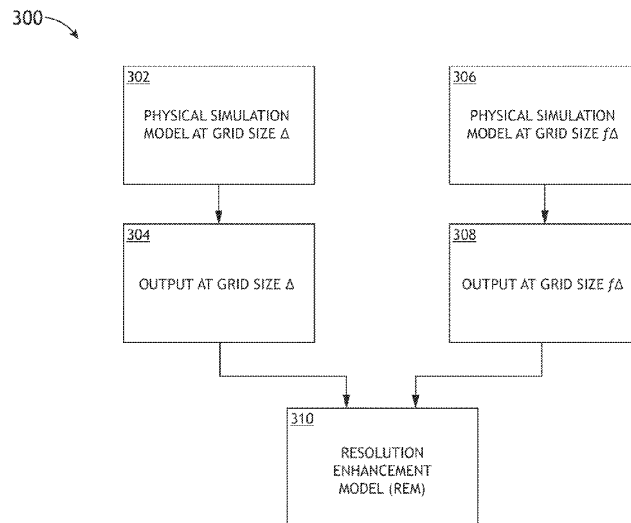


FIG.3

(57) Abstract: A method for accelerating physical simulation models during microelectronic device fabrication may include, but is not limited to, running a physical simulation model at a first grid size having a first resolution, generating outputs at the first grid size having the first resolution from the physical simulation model, inputting the outputs at the first grid size having the first resolution from the physical simulation model into a resolution enhancement model (REM), and generating outputs at a second grid size having a second resolution via the REM to reduce at least one of a computational time cost or a computational resource cost of a controller running the physical simulation model. The physical simulation model may simulate an on-wafer performance of at least one microelectronics fabrication process. The second grid size may be smaller than the first grid size. The second resolution may be higher than the first resolution.

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ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO,
NZ, OM, PA, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW,
SA, SC, SD, SE, SG, SK, SL, ST, SV, SY, TH, TJ, TM, TN,
TR, TT, TZ, UA, UG, US, UZ, VC, VN, WS, ZA, ZM, ZW.

(84) Designated States (*unless otherwise indicated, for every kind of regional protection available*): ARIPO (BW, GH, GM, KE, LR, LS, MW, MZ, NA, RW, SD, SL, ST, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, RU, TJ, TM), European (AL, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, KM, ML, MR, NE, SN, TD, TG).

Published:

— with international search report (Art. 21(3))