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(71) Applicant: IQM FINLAND OY [FI/FI]; Keilaranta 19,
02150 Espoo (FI).

(72) Inventors: CALZONA, Alessio; c/o IQM Germany
GmbH, Georg-Brauchle-Ring 23-25, 80992 Munich (DE).
PAPIC, Miha; c/o IQM Germany GmbH, Georg-
Brauchle-Ring 23-25, 80992 Munich (DE). FIGUEROA

ROMERO, Pedro; c/o IQM Germany GmbH, Georg-
Brauchle-Ring 23-25, 80992 Munich (DE).

(74) Agent: HOFFMANN EITLE PATENT- UND
RECHTSANWÄLTE PARTMBB; Arabellastraße 30,
81925 Munich (DE).

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(54) Title: METHOD OF DETERMINING A NOISE CHARACTERIZATION, QUANTUM COMPUTER, CLASSICAL COMPUT-
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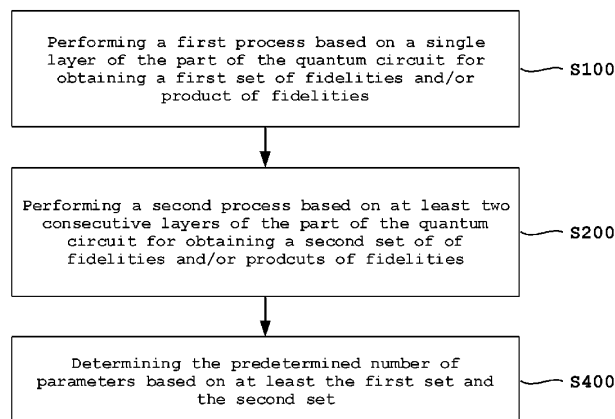


FIG. 1

(57) Abstract: A method of determining a noise characterization of a quantum processing unit configurable to execute at least a part of a quantum circuit comprising at least two consecutive layers of quantum gates, wherein the noise characterization is based on a predetermined number of parameters, the method comprising the steps of: performing a first process based on a single layer of the part of the quantum circuit for obtaining a first set of fidelities and/or products of fidelities, performing a second process based on at least two consecutive layers of the part of the quantum circuit for obtaining a second set of fidelities and/or products of fidelities, and determining the predetermined number of parameters based on at least the first set and the second set.

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