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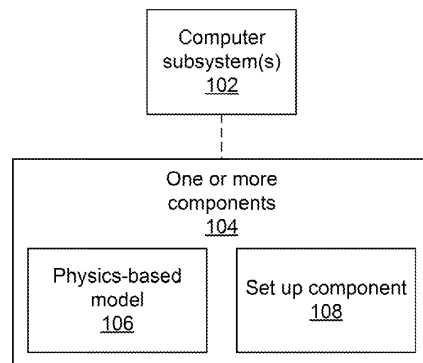


Fig. 1

(57) Abstract: Systems and methods for setting up a physics-based model are provided. One system includes one or more components that are executed by one or more computer subsystems and that include a physics-based model describing a semiconductor fabrication-related process and a set up component configured for setting up the physics-based model in multiple phases in each of which only a subset of all of the parameters of the physics-based model are set up. A configuration of the set up component is changed between at least two of the multiple phases based on the subset of all of the parameters of the physics-based model set up in the at least two of the multiple phases. The set up component may perform a Bayesian optimization technique for cascaded model set up or calibration using multiple information sources and objective functions.

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