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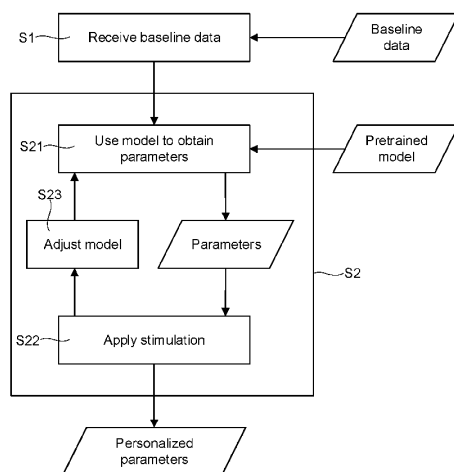
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(54) **Title:** METHOD FOR OBTAINING PERSONALIZED PARAMETERS FOR TRANSCRANIAL STIMULATION, TRANSCRANIAL STIMULATION SYSTEM, METHOD OF APPLYING TRANSCRANIAL STIMULATION

Fig. 1



(57) **Abstract:** This disclosure relates to transcranial stimulation. In one arrangement, a method for obtaining personalized parameters for transcranial stimulation is provided. Baseline data about a test subject are received, the baseline data comprising information about the test subject acquired prior to transcranial stimulation applied to the test subject. A Gaussian process model of performance of one or more training subjects is used to obtain personalized parameters for transcranial stimulation for the test subject based on the received baseline data. The Gaussian process jointly models subject performance during and/or after transcranial stimulation as a function of both i) parameters defining the transcranial stimulation; and ii) baseline data for the one or more training subjects.

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