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abstracts

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parallel in saturation. Such a control of the vector magnetic state allows us to generate long-range triplet correlations in the whole system. The magnetic and transport data measured in the vicinity of the superconducting transition for different magnetic configuration will be also present.

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Control of superconducting qubit states by a single flux quantum pulse

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The principal possibility of implementation of the simplest logical operations on picosecond timescale has been confirmed by both analytical and numerical modelling of dynamics of superconducting flux qubit in magnetic field. Individual current pulses, propagating through distributed Josephson junctions and transmission lines of rapid single flux quantum logic have been proved to be an instrument for realization of such an operation. Using of flux-qubit interaction affecting the so-called X-components of the «Josephson atom» Hamiltonian has been shown to be the way of realization of the simplest coherent manipulations on «Josephson atom» states. The methods of approximate analytical (by matrix exponent) and exact numerical research of magnetic moment dynamics in two- and three-level systems have been developed for the cases of both oscillating ($\omega\tau \gg 1$) and unipolar ($\omega\tau \ll 1$) magnetic fields. Developed methods have been used for modelling of the «Write» logical operation on:

a) Josephson quantum bit by individual unipolar magnetic field pulses on picosecond timescale ($\tau \sim 1 - 10$ ps),

b) atomic system magnetic moment by oscillating magnetic field on picosecond timescale ($\tau \sim 1 - 10$ ps),

c) Josephson quantum bit by oscillating magnetic field on picosecond timescale ($\tau \sim 40$ ps). Mathematical analogy between quantum and classical magnetic moment dynamics in external magnetic field has been demonstrated within a designations under the conditions on duration of magnetic field pulse, which should be long enough for oscillating field ($\omega\tau \gg 1$) and should be short enough for unipolar field ($\omega\tau \ll 1$). Principal

impossibility of «Write» logical operation implementation has been demonstrated for intermediate values of $\omega\tau \sim 1$.

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Инвайроментальные и медико-биологические факторы в укреплении здоровья человека.

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Аннотация:

1. Вселенная и организм человека имеют общие принципы построения.

2. Человеческий мозг способен воспринимать окружающий мир напрямую кроме известных пяти органов чувств.

3. Окружающая среда в настоящий момент развития технических средств способна нанести существенный вред здоровью человека.

Ключевые слова: -окружающая человека среда, -микрелептонные излучения, -торсионное поле, -здоровье человека.

THE ENVIRONMENT AND MEDICAL-BIOLOGICAL FACTORS IN STRENGTHENING

HUMAN HEALTH.

Summary. 1. Universe and human body are created on the common principles. 2. The human brain is able to perceive the surrounding world directly without the live senses. 3. The environment is currently developing technical sources capable of causing significant harm to human health.

Key Words :-human environment, -microlepton radiation, -torsion field, --human health.

Реальный мир, в котором мы живем, огромен, реален и познаваем. Материалисты в этом полностью правы. На современном этапе развития науки установлено, что в материальном мире действуют законы ДИССИПАЦИИ – выравнивание скоростей концентраций и температур. Работоспособность в замкнутых закрытых объемах и системах уменьшается, а энтропия (стремление к хаосу) возрастает и качество материи снижается. Но людям ведь нужна стабильность и здоровье. Поэтому фактор взаимодействия человека с окружающей средой, начиная от