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The influence of external radiation on the Josephson junction + nanomagnet system

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We investigate the dynamics of a system of nanomagnet coupled to the Josephson junction. The manifestation of the Kapitsa pendulum features in such a system is studied. The role of quasiparticle current on the change of frequency dependence in the Kapitsa-like pendulum features is revealed. We also investigate the effect of external radiation on the properties of the Kapitsa pendulum features. It is shown that voltage value of a complete reorientation of magnetic moment of the nanomagnet depends on amplitude of external radiation applied to the junction.
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