# ON BEHAVIOR OF QUANTUM PARTICLES IN AN ELECTRIC FIELD IN SPACES OF CONSTANT CURVATURE, HYPERBOLIC AND SPHERICAL MODELS

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S u m m a r y

In the Lobachevsky hyperbolic and Riemann spherical spaces, generalized potentials describing a uniform electric field are introduced as solutions of the covariant Maxwell equations. Exact solutions of the Schrödinger equation in the presence of the electric field are constructed in both models. The similarity of the energy spectra of the particle against the background of a spherical space with the electric field and in the Coulomb field is noted.