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标题: ZITTERBEWEGUNG IN THIN FILMS OF TOPOLOGICAL INSULATORS WITH HEXAGONAL LATTICE IRRADIATED BY TERAHERTZ PULSES
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摘要: We study the Zitterbewegung effect (trembling motion) in thin films of topological insulators with a hexagonal lattice in the presence of terahertz pulse pumping. We derive the analytical expression for the current density, which describes the current induced by the motion of a wave packet of electrons. The electronic subsystem is considered in the long-wavelength approximation, and the electromagnetic field is treated classically in the approximation of a constant pumping. We reveal the possibility to control individual electron wave packets by manipulating with optical pulses.
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