



Mathematical Physics

Periodically driven dynamics of a particle moving in the field of Coulomb plus confining potential

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Periodically driven dynamics of a particle moving in the field Coulomb plus confining potential is treated for one and three dimensional cases. Critical value of the external field strength at which chaotization will occur is evaluated analytically based on the resonance overlap criterion. The analysis of the phase-space dynamics is presented.

Subjects: **Mathematical Physics (math-ph)**; High Energy Physics - Theory (hep-th); Chaotic Dynamics (nlin.CD); Atomic Physics (physics.atom-ph)

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