

集団自由度の揺らぎを取り入れた微視的反応理論とその応用

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We have developed a new microscopic approach to the nuclear fission based on the stochastic mean field theory, which simulates the evolution of a quantum wavepacket in the collective phase space with an ensemble of time-dependent Hartree-Fock trajectories.

We show that the important fission observables, such as the total kinetic energy of fragments and the fragment mass distribution are reasonably in good agreement with experimental data for the spontaneous fission of ^{258}Fm .

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