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# Properties and Dynamics of Fission Fragment Spins

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In recent times, new theoretical and experimental results made it clear that the generation and dynamics of fission fragment (FF) intrinsic spins and their correlations were not well understood. During this period, we investigated various aspects of FF spins for compound nuclei 236U, 240Pu, and 252Cf using time-dependent density functional theory (TDDFT) extended to superfluid systems. We performed the first extraction of the FF spins distributions, as well as found the first evidence for all collective angular momenta modes, within a microscopic framework. Soon after we investigated the role of the relative angular momenta between FFs and extracted the opening angle distribution between the FF spin vectors, which vastly differed from leading phenomenological approaches at the time. Most recently, the role of the K quantum number, or projection of the spin along the fission axis, was carefully investigated, showing that the FF intrinsic spin dynamics is explicitly three-dimensional.

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