Pairing correlations and two-particle transfer reactions

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Abstract

Two-particle transfer processes induced by light and heavy ions are known to be an ideal dynamical tool for extracting information on nuclear pairing correlations. The procedure is however not unique and different reaction mechanism models (ranging from microscopic correlated successive one-particle transfer to collective macroscopic models) can be introduced to establish a link with the structural aspects of initial and final states. We briefly review the subject with special attention to the novel features arising in systems close to the drip lines from the weak binding situation and the consequent role of continuum states.