

— 第927回九大原子核セミナー —

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演題：Proton-neutron pairing in spin-isospin responses

日時：2月3日(水) 16:30～

† 今回は通常と曜日が異なりますのでご注意ください

場所：理学部 物理学部門 物理 セミナー室 2

(ウエスト1号館7階 W1-A-722室)

概要

Pairing is a profound emergent behavior in many-body systems consisting of fermions ranging from quarks to nucleons to electrons. In nuclear systems, a rich variety of low-energy phenomena have been successfully described in terms of the Bogoliubov quasiparticles. However, there are no evidences so far that support the superconductivity associated with the spin-triplet proton-neutron pairing despite a numerous experimental attempts. In this seminar, I am going to discuss mainly a possible occurrence of the isoscalar proton-neutron pairing vibration as a precursory soft mode of spin-triplet pairing condensation. Furthermore, the roles of the isoscalar pairing on the low-lying Gamow-Teller modes of excitations and the beta-decay rates in neutron-rich nuclei relevant to the r-process nucleosynthesis will be also discussed.

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