Neutron stars: the equation of state, superconductivity/superfluidity and transport coefficients (PHAROS WG1+WG2 meeting)



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Superfluid matter and its elementary excitations

Thursday 27 September 2018 09:00 (30 minutes)

The role of superfluidity for the transport processes in Neutron Stars is briefly discussed. The emphasis will be on the different elementary excitations that can occur in the superfluid matter. A throughout microscopic study of the excitations in different physical conditions inside Neutron Stars is presented and discussed. The results include the overall strength functions of the electron, proton and neutron components, which in particular indicate the rate of damping of the excitations.

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