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Intense Magnetic field effect on mass-radius relation of Neutron stars

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Neutron stars possess very strong magnetic fields of order 10ˆ11˜10ˆ12 G. Such strong magnetic fields modify properties of Neutron star matter. We investigate the effect of this strong magnetic field on EOS (Equation of State) of neutron stars. So far, various models and EOS for neutron stars have been proposed and properties of neutron stars are calculated and compared with observations. In this study, the equation of state of the neutron star core is extracted from the lowest order constrained variational method by employing two body AV18 interaction supplemented by Urbana type three body force and two various models are considered as basic EOS of crust of neutron
In this study we focused on Landau levels of electrons in the crust.

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