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## The effect of the magnetic field on the inner crust of neutron stars

*Monday, 25 April 2016 14:20 (20 minutes)*

The effect of strong magnetic fields, of the order of  $10^{16}$ - $10^{17}$ G, on the extension of the crust of magnetized neutron stars is discussed. The dynamical instability region of neutron-proton-electron matter at subsaturation densities and the mode with the largest growth rate are determined within a relativistic mean field model. It is shown that a strong magnetic field has a large effect on the instability region, defining the crust-core transition as a wide density range.

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