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Equation of State for Cold Neutron Star Crust HELBER DUSSAN, Indiana University, C.J. HOROWITZ, N.T.C -INDIANA UNIVERSITY BLOOM-INGTON TEAM — The crust of neutron star has an extension of about 1 km and represents only 1% of the total mass of the star. However, the physical properties (radiation flux, thermal conduction, etc) depend on the dynamics of the crust. We applied relativistic mean field theory to find the equation of state (energy and pressure as functions of the density) for all densities along the crust.

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