

Abstract Submitted
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How deep does a pulsar crust go? Using terrestrial experiments to explore the outer layers of a neutron star¹ WILLIAM NEWTON, Texas A&M University-Commerce — The composition of the inner neutron star crust has a number of observational consequences via its impact on the mechanical, thermal and hydrodynamic properties of the crustal matter. Based on the nuclear liquid drop model, we examine our knowledge of the crustal composition resulting from our current experimental and theoretical constraints on the nuclear equation of state, focusing on the crust-core boundary layer's density and pressure, proton and free neutron fraction, and nuclear geometry.

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