

Abstract Submitted
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Elucidating the Properties of Dense Matter from Starquakes in Neutron Star Crusts¹ ANDREW STEINER, Michigan State University — The recent observation of quasi-periodic oscillations in giant flares produced in highly magnetized neutron stars offers a unique opportunity to constrain the properties of the neutron star crust. The frequencies, some of which are thought to be normal modes of oscillation of the neutron star crust, can be measured to few percent accuracy. I will show that the normal mode frequencies are quite sensitive to the nuclear physics aspects of the crust, in particular, to the nuclear symmetry energy. This promises to be an important constraint on the nuclear symmetry energy which is complementary to constraint obtained by the determination of the neutron skin thickness of lead at Jefferson Lab.

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