Abstract Submitted for the TSF21 Meeting of The American Physical Society

TTU directed searches for continuous gravitational waves BEN-JAMIN OWEN, Texas Tech University — I summarize the Texas Tech group's recent searches of publicly available Advanced LIGO data for continuous gravitational waves. Detections of gravitational waves from mergers of binary black holes and/or neutron stars have become common. Continuous wave signals from single neutron stars have not yet been detected, so they are the new frontier. Continuous gravitational waves couple to the crystal layers of the star and possibly the viscosity and thermal properties of the fluid core, unlike the bulk properties revealed in binary mergers; so they can open up a new window into neutron star interiors.

Benjamin Owen Texas Tech University

Date submitted: 09 Sep 2021 Electronic form version 1.4