

The Structure and Signals of Neutron Stars, from Birth to Death



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g-modes in superfluid neutron stars

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We show that, contrary to general belief, g-modes can exist in superfluid neutron stars. Unlike ordinary composition g-modes in cold non-superfluid neutron stars, these g-modes turn out to be very temperature-dependent and can have frequencies up to ~ 0.5 kHz.

We analyze their properties and briefly discuss the ways

they can be excited. Possible observational signatures of the proposed g-modes are also examined.

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