Effects of Phase Transitions in Neutron Stars STEVEN LIEBLING,
Long Island University — There are various theoretical motivations for expecting
a phase transition in matter at extreme densities above supranuclear accompanied
by hopes that gravitational wave observations may reveal the properties of such
a transition. We consider a generic form of first order phase transition using a
piecewise polytrope equation of state, and evolve both isolated neutron stars and
neutron star binaries looking at dynamical effects. Of particular interest are effects
that may be observable.

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