Tidal effects on companion with lower mass in a binary neutron star

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Present report deals with tidal effects on lower-mass component in a binary neutron star. Tidal destruction of the component due to loss of mass to tidal forces are of particular interest. A recently proposed equation of state of dense matter was used to evaluate density distributions in low mass neutron stars and Rosh limits in binary stars with uneven mass distributions. Classical approach was employed. Results of hydrodynamic simulations of tidal destruction of lower-mass component are also presented