Quadrupole moments of rotating compact stars

Martin Urbanec[1], John Miller[2] and Zdenek Stuchlik[1]

[1]Institute of Physics, Silesian University in Opava, Czech Republic
email: martin.urbanec@fpf.slu.cz

[2]Department of Physics (Astrophysics), University of Oxford, UK

Abstract. We present quadrupole moments of rotating neutron and strange stars calculated using standard Hartle Thorne approach. We demonstrate differences between neutron and strange star parameters connected with quadrupole moments and how this parameters could be, in the case of neutron stars, approximated almost independently on neutron star equation of state.