

- **nsatmos: NS Hydrogen Atmosphere model with electron conduction and self-irradiation**

This model interpolates from a grid of NS atmosphere calculations provided by George Rybicki and Ramesh Narayan to output a NS atmosphere spectrum. The model grids cover a wide range of surface gravity and effective temperature, and incorporate thermal electron conduction and self-irradiation by photons from the compact object. This code assumes negligible (less than 10^9 G) magnetic fields and a pure hydrogen atmosphere. A detailed description of the model is given in Heinke et al. (2006), ApJ in press, astro-ph/0506563 (see also McClintock et al. 2004, ApJ, 615, 402).

par1	Log T_{eff} : (unredshifted) effective temperature
par2	M_{ns} : neutron star gravitational mass (in units of Solar mass)
par3	R_{ns} : “true” neutron star radius (km)
par4	dist : distance to the neutron star (in kpc)
K	fraction of the neutron star surface emitting