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Erratum: Possible conversion of a neutron star to a quark star in the presence of high magnetic field

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Key words: errata, addenda – equation of state – gravitation – hydrodynamics – shock waves – stars: magnetic field – stars: neutron.

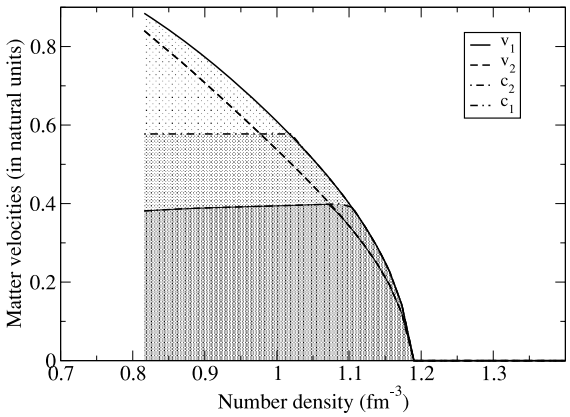

Figure 2. Variation of different flow velocities with baryon number density. The most densely shaded region corresponds to deflagration, the moderate shaded region corresponds to detonation and the most lightly shaded region corresponds to supersonic conversion processes.

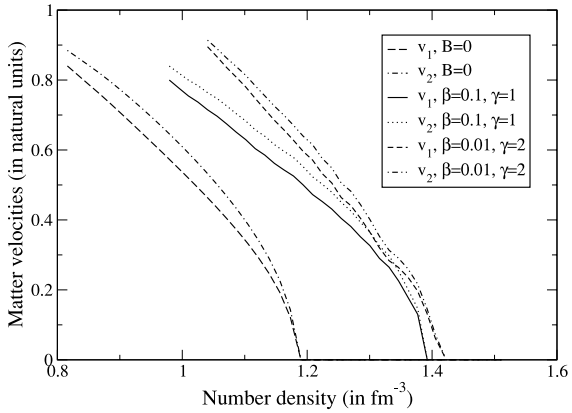

Figure 5. Variation of v_1 and v_2 with baryon number density. The curves are plotted for the EoSs with magnetic-field profiles corresponding to $\beta = 0.1$, $\gamma = 1$ and $\beta = 0.01$, $\gamma = 2$ with $B_C = 1 \times 10^{18}$ G, along with the non-magnetic case.

The paper 'Possible conversion of a neutron star to a quark star in the presence of high magnetic field' was published in Mon. Not. R. Astron. Soc. **414**, 2702–2708 (2011).

In preparing our manuscript we made a few typographical and figure errors. We correct them in this erratum. In fig. 2 of the original paper we indicated different regions in the velocity–density plane for different modes of combustion to occur. Some parts of the regions were shaded wrongly. We plot these in a corrected Fig. 2 in this erratum. Throughout the original paper $\beta = 0.2$ should be replaced by $\beta = 0.01$. Fig. 5 of the original paper should be replaced by the corrected version in this erratum, where the comparison between two magnetic field profiles is done with a central magnetic field $B_C = 1 \times 10^{18}$ G. In our future projects we would like to explore the aspect of magnetic field not only in the equations of state, but also in the conservation equations and field equations.

In the original paper, author MS omitted to acknowledge support from the Alexander von Humboldt Foundation, Germany – this is amended in the corrected Acknowledgments below.

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