Abstract Submitted
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A new numerical method for the construction of binary neutron star initial data[1] WOLFGANG TICHY — We present a new numerical method for the generation of binary neutron star initial data using the Wilson-Mathews or conformal thin sandwich approach. Our method uses six different computational domains, which include spatial infinity. Each domain has its own coordinates which are chosen such that the star surfaces always coincide with domain boundaries. We use an efficient pseudospectral method to solve the elliptic equations associated with the conformal thin sandwich approach. The main purpose is to introduce our new method and to present code tests for several different configurations.

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