0.1 Calculation inconsistency in Lyne 2010

In this section I present an inconsistency in the argument of **?** regarding two-state spin-downs. They have presented, amonst others, two types of data which are related: the estimated spin-down values for the two distinct states, and the magnitude of timing residuals which they claim results from this switching. For clarity we begin by considering only this data for PSR B1828-11.

In the supplementary material for the paper and in a follow up paper **?**, the authors generate timing residuals to illusrtrate agreement with observation. This is done by taking the proposed spin-down model, a square-wave switching between two value, and numerically integrating twice to get the phase. Subtracting a Taylor expansion fit yeilds the phase-residual which once multiplied by the spin-period produces the timing residual.
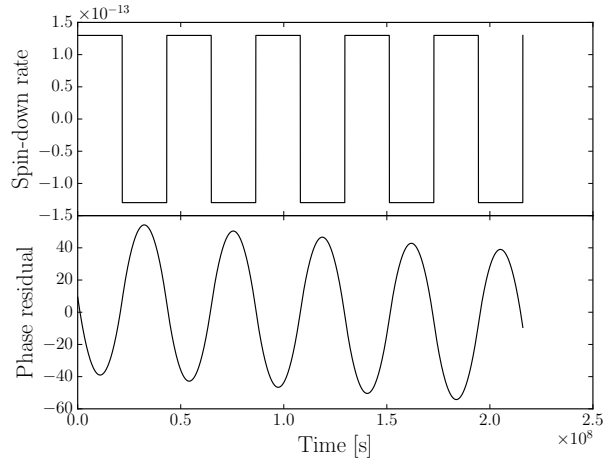

Figure 0.1.1