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Transient large-scale dynamos in supernova progenitors JASON NORDHAUS, ERIC BLACKMAN, University of Rochester — A large-scale, transient interface dynamo model is presented in the context of a supernova progenitor. Torodial and polodial field strengths are calculated at the boundary between the strong shear layer and the surrounding convective envelope. Dynamical shear is included and drained through field amplification and turbulent diffusion. For a 15 solar mass progenitor with varying outer shear layer rotation rates, we present a range of models which may provide enough energy to help power a supernova through poynting flux, viscous dissipation or a combination of both.

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