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Models of Core-Collapse Supernova Explosions and Uncertainties in Presupernova Stellar Structure CHRISTIAN D. OTT, TAPIR, Caltech, SEAN M. COUCH, Flash Center, University of Chicago — Stars are not perfectly spherical. There are strong indications from the first set of multi-dimensional simulations of the late stages of stellar evolution that precollapse stellar structure may harbor large scale deviations from spherical symmetry. We discuss current uncertainties in presupernova stellar structure and show results from a numerical experiment that demonstrates that asphericities caused by vigorous convective Si/O shell burning can have a pivotal effect on supernova dynamics.

Christian D. Ott
Caltech

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