

NCCS Snapshot

The Week of February 18, 2008

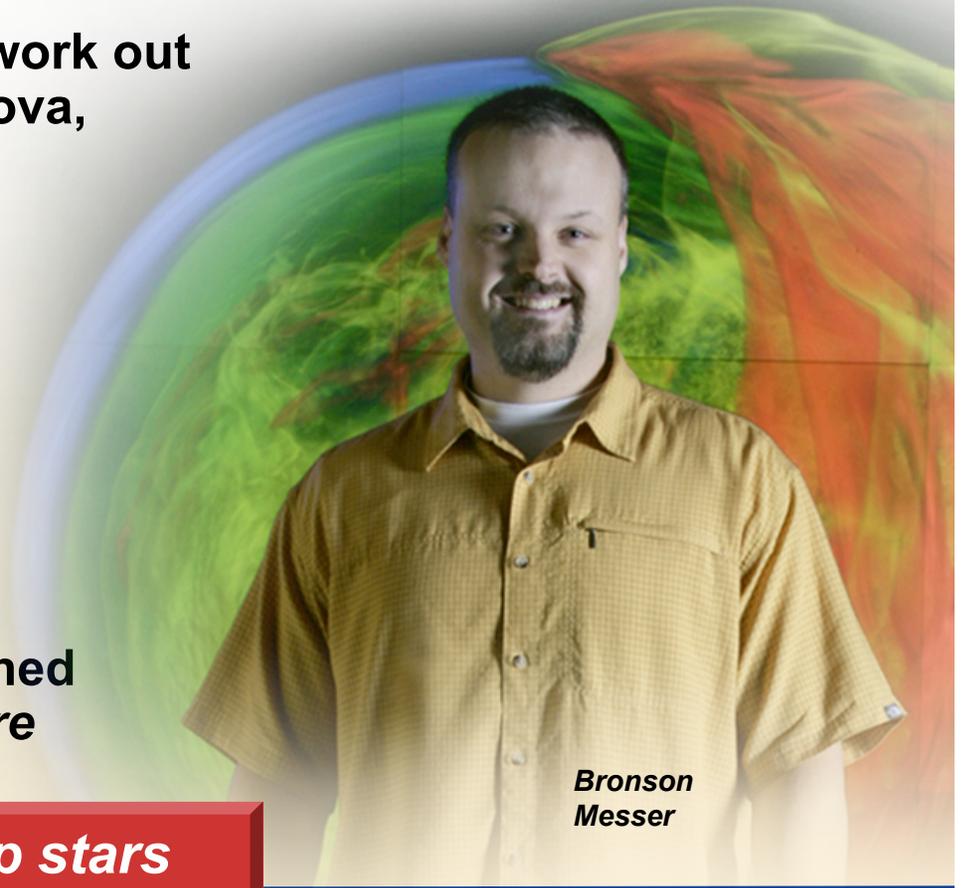
NATIONAL CENTER
FOR COMPUTATIONAL SCIENCES



Oak Ridge National Laboratory
U.S. Department of Energy

NSF Grant Will Aid Supernova Research

- A team led by NCCS astrophysicist Bronson Messer will use a National Science Foundation (NSF) grant to prepare its supernova simulation tool for the era of petascale computing
- The researchers are attempting to work out details of the core-collapse supernova, the death of a star at least 10 times as massive as the sun
- In particular, they are investigating how the shockwave is created when the star's core collapses
- The group discovered the first explanation for a pulsar's spin that matches observations from actual pulsars. This discovery was published in the leading science journal *Nature*



*Bronson
Messer*

Team will get better at blowing up stars

NCCS Sponsors Workshops

Users Meeting, XT, Lustre all upcoming

- A total of three workshops, held at Oak Ridge National Laboratory (ORNL), will be hosted by the NCCS in mid-April
 - **The NCCS XT Workshop, April 14-16:** Staff from the NCCS, ORNL's Joint Institute for Computational Sciences, Cray, and chipmaker AMD will discuss XT issues
 - **Lustre Workshop, April 16:** This will focus on helping application scientists get the most from the Lustre File System
 - **NCCS Users Meeting, April 17-18:** Principal investigators, NCCS staff and vendors will discuss challenges and solutions in various areas, and NCCS staff and new INCITE projects will all give presentations

