**Curriculum Vitae**

**Stan E. Woosley**
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**Professional Preparation**

PhD - 1971 - Rice University - Space Sciences - advisor D. D. Clayton
BA - 1966 - Rice University - Physics

**Appointments**

1975 - present *University of California, Santa Cruz, Department of Astronomy and Astrophysics:*
Assist. Prof. (1975 - 1978); Assoc. Prof. (1978 - 1983); Full Professor (1983 - 2001); Distinguished Prof. (2001 - present). 39 years teaching experience. Department Chair for 10 years.

1972 - 1975 *Kellogg Radiation Laboratory, California Institute of Technology:*
Research Associate - *advisor:* Prof. W. A. Fowler

**Five Recent Publications Most Relevant to This Proposal**

1. *Type Ia Supernovae from Merging White Dwarfs. I. Prompt Detonations*, R. Moll, C. Raskin, D. Kasen, and S. Woosley, Astrophys. J. 785, 105 - 117, (2014)
2. *The Deflagration Stage of Chandrasekhar Mass Models for Type Ia Supernovae. I. Early Evolution*, C. Malone et al (including S. Woosley), Astrophys. J., 782, 11 - 34 (2014)
3. *Multi-dimensional Models for Double Detonation in Sub-Chandrasekhar Mass White Dwarfs*, R. Moll and S. Woosley, Astrophys. J, 774, 137 - 151, (2013)
4. *Sub-Chandrasekhar Mass Models for Supernovae*, S. E. Woosley and D. Kasen, Astrophys. J., 734, 38, (2011)
5. *The Diversity of Type Ia Supernovae from Broken Symmetries*,D. Kasen, S. Woosley, and F. Röpke, Nature, 460, 869, (2009)

**Research Interests and Expertise**

Over 40 years experience working on nucleosynthesis theory and models for supernovae of all types, as well as models for other forms of explosive astrophysical transients, especially x-ray bursts and gamma-ray bursts. Originated the currently accepted (collapsar) model for gamma-ray bursts and, with Ron Taam, the thermonuclear model for x-ray bursts. In 2005, awarded both the Bethe Prize of the APS and the Rossi Prize of the AAS for work on supernovae, gamma-ray bursts, and nucleosynthesis. Work has garnered over 35,000 citations

**Synergistic Activities**

1. Former PI and Director, SciDAC Computational Astrophysics Consortium, 2006 - 2012
2. Member National Academy of Sciences (2006) and American Academy of Arts and Sciences (2001)
3. Consultant in astrophysics and nuclear physics, Lawrence Livermore National Lab, 1971 - 2012
4. Recipient of major research funding from the DOE, NSF, NASA, and the UC Lab Management fund for research in supernova models and nucleosynthesis

**Collaborators (*past 5 years including name and current institution*)** Andy Aspden (LBNL), Ann Almgren (LBNL), John Bell (LBNL), Josh Bloom (UCB), Justin Brown (UCSC), Adam Burrows (Princeton), Ken Chen (UCSC), Luc Dessart (CNRS), Gary Glatzmaier (UCSC), Shawfeng Dong (UCCS), Gary Glatzmaier (UCSC), Rob Hoffman (LLNL), Candace Joggerst (LANL), Dan Kasen (UCB), Alan Kerstein (Sandia), Chryssa Kouveliotou (NASA Marshall), Elizabeth Lovegrove (UCCS), Chris Malone (LANL), Paulo Mazzali (ARI), Rainer Moll (MPA), Andy Nonaka (LBNL), Luke Roberts (UCSC), Cody Raskin (UCB), Fritz Roepke (MPA Garching), Tuguldur Sukhbold (UCSC), Daniel Whalen (StSci), Ralph Wijers (Amsterdam), Sung-Chul Yoon (U. Bonn), Mike Zingale (SUNYSB), Weiqun Zhang (LBNL)