

Arizona State University (ASU)  
 School of Earth and Space Exploration (SESE)  
 PO Box 871404  
 Tempe, AZ, 85287-1404

Phone: (480) 965-4274  
 Mobile: (505) 603-2022  
 E-mail: [ftimmes@asu.edu](mailto:ftimmes@asu.edu)  
 Web: [cococubed.asu.edu](http://cococubed.asu.edu)

## Research Interests

Stars, in general and especially their evolution, final fate, and nucleosynthesis.  
 Chemical evolution, growth of every isotope at every point in spacetime.  
 Astrobiology, synthesis and delivery of bioessential elements to habitable systems.  
 Gamma-ray astronomy, from radioactive isotopes.  
 Software instruments, high performance computing, and next-generation internet.

## Education

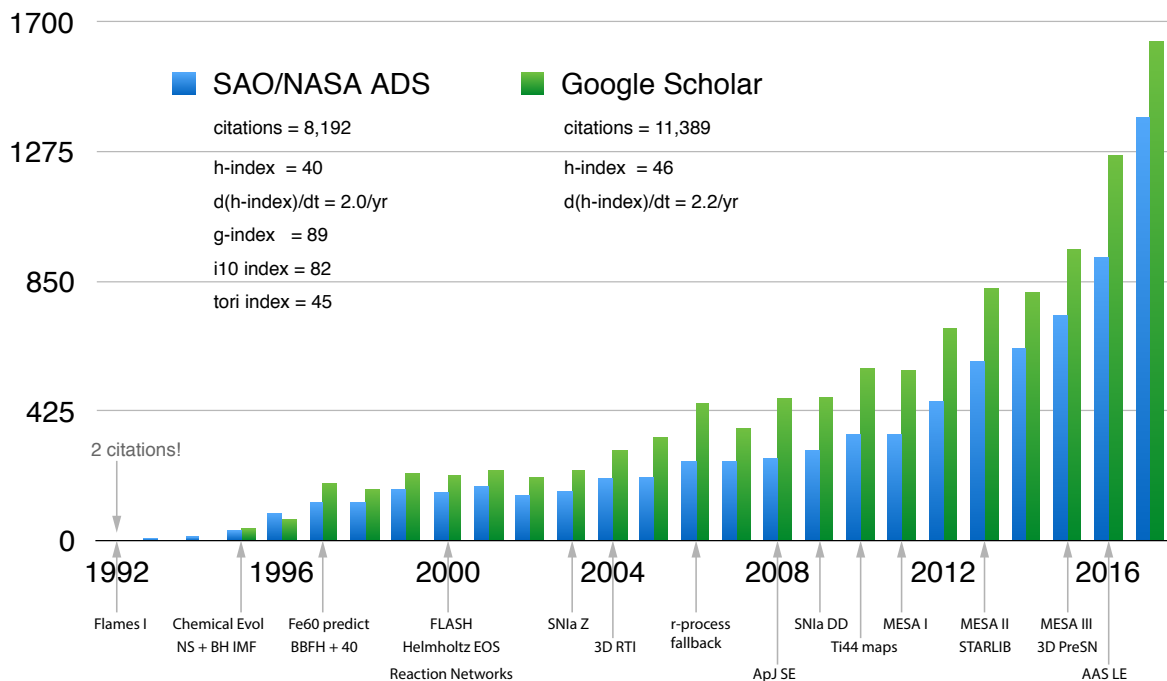
1988 – 1992 UC Santa Cruz M.S. & Ph.D. in Astronomy & Astrophysics  
 1981 – 1984 UC Santa Barbara B.S. in Physics, with Honors

## Recent Appointments

2016 – Lead Editor, American Astronomical Society [Journals](#)  
 2009 – Scientific Editor, American Astronomical Society [Journals](#)  
 2008 – Professor, SESE, ASU  
 2011 – 2015 Director, ASU Advanced Computing Center

## Publication Summary

- 271 publications, 112 refereed + 2 under review + 2 in preparation.
- Papers with 1000+ citations: 2; with 500+ citations: 5; with 200+ citations: 12; with 100+ citations: 19.
- Citations: [8,192 ADS](#), [11,389 Google Scholar](#); *h*-index: 40 ADS, 46 Google Scholar.
- [One](#) of the [25 most cited](#) Astronomy & Astrophysics papers published in 1995.
- [One](#) of the [15 most cited](#) Astronomy & Astrophysics papers published in 2000.
- [Front Cover](#) of Physics Today, February 2002.
- [One](#) of the [10 most cited](#) Astronomy & Astrophysics papers published in 2011.
- [One](#) of the [15 most cited](#) Astronomy & Astrophysics papers published in 2013.
- [One](#) of the [15 high-impact](#) papers highlighted by the American Astronomical Society in 2015.
- [One](#) of the [10 most cited](#) Astronomy & Astrophysics papers published in 2015.



### Recent Research Funding

Total Awards Since 2008: \$26.0M, \$6.8M to ASU

Expenditures: FY16 \$812K, FY15 \$404K, FY14 \$235K, FY13 \$306K

|             |        |       |  |
|-------------|--------|-------|--|
| 2017 – 2021 | NSF    | PI    | \$2.3M, <i>Modules for Experiments ... (MESA)</i>              |
| 2014 – 2019 | NSF    | Co-PI | \$11.2M, <i>Physics Frontiers Center, JINA-CEE</i>             |
| 2015 – 2018 | NASA   | Co-PI | \$676K, <i>Assessing the Effects of New Reaction Rates ...</i> |
| 2014 – 2017 | NSF    | PI    | \$806, <i>Modules for Experiments ... (MESA)</i>               |
| 2014 – 2017 | NASA   | PI    | \$1.2M, <i>Supernova Progenitor ... (SPIDER)</i>               |
| 2015 – 2016 | Simons | PI    | \$118K, <i>Simons Fellowship</i>                               |
| 2014 – 2016 | NSF    | PI    | \$398K, <i>Campus Cyberinfrastructure ...</i>                  |
| 2016 – 2016 | NSF    | PI    | \$100K, <i>2016 NSF SI2 PI Workshop</i>                        |

### Recent Leadership and Management Activities

2011 – 2015 \$1.2M/yr, Director, Advanced Computing Center, ASU

2009 – 2011 \$16M/yr, Associate Director of Operations, SESE, ASU

### Recent Awards, Fellowships, and Honors

2015 [Simons Fellow](#) in Theoretical Physics

2014 [Fellow](#), American Physical Society

2013 Student Cluster Competition Prize, [Supercomputing](#)

2008 Certificate of Service, Department of Energy

2004 National Security Fellow, Los Alamos

2000 Gordon Bell Prize, [Supercomputing](#)

### Recent, Successful Award Nominations

2018 Michael Wiescher, Laboratory Astrophysics Prize, American Astronomical Society

2017 Lars Bildsten, Dannie Heineman Prize for Astrophysics, American Astronomical Society

2016 Roland Diehl, Fellow, American Physical Society

2012 David Arnett, Henry Norris Russell Lectureship, American Astronomical Society

2009 David Arnett, Hans A. Bethe Prize, American Physical Society

### Selected Invited Lectures, Addresses, and Colloquia

American Physical Society Nuclear Physics Division; Argonne National Laboratory; Arizona State University; Aspen Center for Physics; California Institute of Technology; Duke University; Harvard University; Kavli Institute for Theoretical Physics; Lawrence Berkeley National Laboratory; Lawrence Livermore National Laboratory; Los Alamos National Laboratory; Michigan State University; North Carolina State; Northwestern University; Notre Dame University; Physical Society of Japan; Princeton University; SUNY - Stony Brook; Steward Observatory; Texas A&M Commerce; University of Arizona; UC Berkeley; UC Santa Barbara; UC San Diego; University of Chicago; University of Maryland; UNC at Chapel Hill; University of Pittsburgh; Washington State University; Yale University

**Recent National and International Service**

- 2016 – Lead Editor, American Astronomical Society [Journals](#)
- 2009 – Scientific Editor, American Astronomical Society [Journals](#)
- 2006 – Executive Committee, [Joint Institute for Nuclear Astrophysics](#)
- 2004 – Review ~40 proposals/year for NSF, NASA, DOE & Private Foundations
- 2017 – 2018 Organizer, “Radiation Transfer and Explosive Thermonuclear Burning”, Weizmann Institute
- 2017 – 2017 Reviewer, Chambliss Award, American Astronomical Society
- 2015 – 2016 Chair, [2016 NSF SI2 PI Workshop](#)
- 2014 – 2015 Chair, [2015 NSF SI2 PI Workshop](#)

**Recent University and Department Service**

- 2016 – University Senator, ASU
- 2014 – 2015 University Senate, Research Computing Task Force, ASU
- 2013 – 2015 University Senate, Data Task Force, ASU
- 2012 – 2015 Information Technology Leadership Council, ASU
- 2011 – 2015 Director, ASU Advanced Computing Center
- 2008 – 2015 Academic Advisor, SESE
- 2013 – 2014 Vice Provost, Education Technology, ASU
- 2013 – 2014 Provost’s STEM Exploratory Committee, ASU
- 2012 – 2013 Provost’s Committee on Excellence in Digital Teaching and Learning, ASU

**Recent Education and Public Outreach Activities**

- 2015 – Largest [college-credit](#) eligible astronomy course in the world, ~10,000 students/yr
- 2011 – Director & Lecturer, [MESA Summer School](#), UC Santa Barbara
- 2004 – [cococubed.asu.edu](#), ~10,000 hits/yr
- 1998 – Deliver ~2 talks/year to K-12, Science Centers, Museums, Astronomy Clubs
- August 2015 First [college-credit](#) eligible MOOC in the world
- 2010 – 2014 Largest online SQ Credit lecture course at ASU, ~900 students/offering
- 2010 – 2014 Largest online SQ Credit laboratory course at ASU, ~900 students/offering

**Summary of Undergraduate and Graduate Teaching**

Introduction to Solar Systems (28); Astronomy Laboratory (28); Introductory Astronomy (16); Energy in Everyday Life (8); Calculus (4); Geometry in Art & Nature (4); Life in the Universe (2); Numerical Techniques in Earth and Space Sciences (1).

**Graduate and Postdoctoral Sponsors:**

Stan Woosley, Graduate Thesis Advisor, UC Santa Cruz  
Jim Truran, Postdoc Advisor, University of Chicago  
Don Clayton, Postdoc Advisor, Clemson University  
Richard Lingenfelter, Postdoc Advisor, UC San Diego

**Recent Undergraduate Advisor to:**

|                |                  |   |
|----------------|------------------|---|
| Carl E. Fields | Physics 2016 ASU | Graduate program at Michigan State University |
| Sandra Schmidt | Physics 2011 ASU | Intel Corporation                             |
| Amed Barakat   | Physics 2011 ASU | Masters program at ASU                        |

**Recent Undergraduate Awards:**

|                |  |   |
|----------------|--|---|
| Carl E. Fields | 2016   | NSF Graduate Research Fellowship                                    |
|                |  | Ford Foundation Predoctoral Fellowship                              |
|                | 2015   | AAS Beth Brown Memorial Prize, National Society of Black Physicists |
|                |  | Carl A. Rouse Fellowship, Caltech                                   |
|                |  | NASA Space Grant Undergraduate Fellowship, ASU                      |
| 2014           | Norm Perrill Origins Project Scholarship, ASU          |   |
|                | CLAS Undergraduate Summer Enrichment Award, ASU        |   |
|                | Gold Medal, Sigma Xi Student Research Conference Award |   |
|                | CLAS Undergraduate Summer Enrichment Award, ASU        |   |
| Milissa Smith  | 2011   | Asian & Pacific Islander American / Wells Fargo Scholarship, ASU    |
|                |  | First-Generation Scholarship, ASU                                   |

**Recent Graduate Advisor to:**

|                     |      |            |                                  |
|---------------------|------|------------|----------------------------------|
| Wendy Hawley        | 2012 | ASU        | Insight Data Science             |
| Natalie Hinkel      | 2012 | ASU        | Postdoctoral Scholar, Vanderbilt |
| Cody Raskin         | 2011 | ASU        | Staff at LLNL                    |
| Georgios Magkotsios | 2011 | Notre Dame | Finance, USC                     |

**Recent Graduate Student Awards:**

|             |      |  |
|-------------|------|--|
| Cody Raskin | 2010 | NASA Earth and Space Science Fellowship        |
|             | 2010 | Annual Meeting of Nobel Laureates, NSF Invitee |

**Recent Postdoctoral Advisor to:**

|                      |           |                              |
|----------------------|-----------|------------------------------|
| Bill Wolf            | 2017-2020 | ASU                          |
| Ilka Petterman       | 2015-2018 | ASU                          |
| Rob Farmer           | 2014-2017 | University of Amsterdam      |
| Soma De              | 2010-2014 | Basis Schools, Scottsdale    |
| Grant Newsham        | 2011-2013 | Retired                      |
| Themis Athanassiadou | 2009-2012 | European Grid Infrastructure |

**Recent Postdoctoral Awards:**

|         |           |                          |
|---------|-----------|--------------------------|
| Soma De | 2010-2013 | SESE Postdoctoral Fellow |
|---------|-----------|--------------------------|

**Refereed Publications**

- r115. Iron-stabilized Carbon Chains (Pseudocarbynes) in the Interstellar Medium P. Tarakeshwar, P.R. Buseck and F.X. Timmes, Proceedings of the National Academy of Sciences, In Preparation
- r114. On the transition between convective and radiative carbon burning in massive stars, I. Petermann, F.X. Timmes, C.E. Fields, and R. Farmer, *Astrophysical Journal*, In Preparation
- r113. Can The James Webb Space Telescope Observe Individual Population III Stars Or Their Black Hole Accretion Disks Directly Through Cluster Caustic Transits?, Rogier A. Windhorst, F. X. Timmes, J. Stuart B. Wyithe, Mehmet Alpaslan, Stephen K. Andrews, Daniel Coe, Jose M. Diego, Mark Dijkstra, and Simon P. Driver, *Astrophysical Journal*, under review.
- r112. [Modules for Experiments in Stellar Astrophysics \(MESA\): Convective Boundaries, Element Diffusion, and Massive Star Explosions](#), B. Paxton, J. Schwab, E. B. Bauer, L. Bildsten, S. Blinnikov, P. Duffell, R. Farmer, J. A. Goldberg, P. Marchant, E. Sorokina, A. Thoul, R. H. D. Townsend and F. X. Timmes, *Astrophysical Journal*, Under Review
- r111. [The Impact of Nuclear Reaction Rate Uncertainties On The Evolution of Core-Collapse Supernova Progenitors](#), C.E. Fields, F.X. Timmes, R. Farmer, I. Petermann, and S. M. Couch, *Astrophysical Journal*, In press, 2018
- r110. [The Neutron Capture Process in the He Shell in Core-Collapse Supernovae. Presolar Silicon Carbide Grains: a diagnostic for nuclear astrophysics](#), M. Pignatari, P. Hoppe, R. Trappitsch, C. Fryer, F.X. Timmes, F. Herwig, and R. Hirschi, *Geochimica and Cosmochimica Acta*, 221, 37, 2018
- r109. [Neutrinos from beta processes in a presupernova: probing the isotopic evolution of a massive star](#), Kelly M. Patton, Cecilia Lunardini, Robert J. Farmer, and F.X. Timmes, *Astrophysical Journal*, 851, 6, 2017
- r108. [The  \$^{12}\text{C}\(\alpha,\gamma\)^{16}\text{O}\$  reaction and its implications for stellar helium burning](#), R. J. deBoer, J. Gorres, M. Wiescher, R.E. Azuma, A. Best, C.R. Brune, C.E. Fields, S. Jones, M. Pignatari, D. Sayre, K. Smith, F.X. Timmes, & E. Uberseder, *Review of Modern Physics*, 89, 035007, 2017
- r107. [Observational evidence for high neutronization in supernova remnants: implications for Type Ia supernova progenitors](#), Héctor Martínez-Rodríguez, Carles Badenes, Hiroya Yamaguchi, Eduardo Bravo, F.X. Timmes, M.J. Baxton, Dean M. Townsley, Anthony L. Piro, Hideyuki Mori, Brett Andrews, and S. Park *Astrophysical Journal*, 843, 35, 2017
- r106. [White paper on nuclear astrophysics and low energy nuclear physics Part 1: Nuclear astrophysics](#), A. Arcones and 32 others including F.X. Timmes, *Progress in Particle and Nuclear Physics*, 94, 1, 2017
- r105. [Constraining the Single-degenerate Channel of Type Ia Supernovae with Stable Iron-group Elements in SNR 3C 397](#), Pranav Dave, Rahul Kashyap, Robert Fisher, F.X. Timmes, Dean Townsley, *Astrophysical Journal*, 841, 58, 2017

- r104. [On Variations Of Pre-Supernova Model Properties](#), R. Farmer, C.E. Fields, I. Petermann, Luc Dessart, M. Cantiello, B. Paxton, & F.X. Timmes, *Astrophysical Journal Supplement*, 227, 22, 2016
- r103. [Turbulent Chemical Diffusion In Convectively Bounded Carbon Flames](#), Daniel Lecoanet, Josiah Schwab, Eliot Quataert, Lars Bildsten, F.X. Timmes, Keaton J. Burns, Geoffrey M. Vasil, Jeffrey S. Oishi, & Benjamin P. Brown, *Astrophysical Journal*, 832, 71, 2016
- r102. [Bayesian Estimation Of Thermonuclear Reaction Rates](#), C. Iliadis, K.A. Anderson, A. Coc, S. Starrfield, & F.X. Timmes, *Astrophysical Journal*, 831, 107, 2016
- r101. [NuGrid stellar data set. I. Stellar yields from H to Bi for stars with metallicities  \$Z=0.02\$  and  \$Z=0.01\$](#) , Pignatari, M., Herwig, F., Hirschi, R., Bennett, M., Rockefeller, G., Fryer, C., Timmes, F. X., Ritter, C., Heger, A., Jones, S., Battino, U., Ritter, C., Dotter, A., Trappitsch, R., Diehl, S., Frischknecht, U., Hungerford, A., Magkotsios, G., Travaglio, C. Young, P., *Astrophysical Journal*, 225, 24, 2016
- r100. [Nucleosynthetic Yields From Multidimensional Simulations of Type Ia Supernova: Reconstruction of Thickened Flames and Verification for Planar Detonations](#), D.M. Townsley, B.J. Miles, F.X. Timmes, A.C. Calder, and E.F. Brown, *Astrophysical Journal Supplement*, 225, 3, 2016
- r99. [On Measuring the Metallicity of Supernovae Type Ia Progenitors](#), B.J. Miles, D.R. van Rossum, D.M. Townsley, F.X. Timmes, A.P. Jackson, A.C. Calder, and E.F. Brown, *Astrophysical Journal*, 824, 59, 2016
- r98. [Properties of Carbon-Oxygen White Dwarfs From Monte Carlo Stellar Models](#) C.E. Fields, R. Farmer, I. Petermann, C. Iliadis, and F.X. Timmes, *Astrophysical Journal*, 823, 46, 2016
- r97. [Convective Properties of Rotating Two-Dimensional Core-Collapse Supernova Progenitors](#) E. Chatzopoulos, S.M. Couch, W.D. Arnett, and F.X. Timmes, *Astrophysical Journal*, 822, 61, 2016
- r96. [Erratum: Modules for Experiments in Stellar Astrophysics \(MESA\): Binaries, Pulsations, and Explosions](#), B. Paxton, P. Marchant, J. Schwab, E.B. Bauer, L. Bildsten, M. Cantiello, L. Dessart, R. Farmer, H. Hu, N. Langer, R.H.D. Townsend, D.M. Townsley, and F.X. Timmes, *Astrophysical Journal Supplement*, 223, 18, 2016
- r95. [Modules for Experiments in Stellar Astrophysics \(MESA\): Binaries, Pulsations, and Explosions](#), B. Paxton, P. Marchant, J. Schwab, E.B. Bauer, L. Bildsten, M. Cantiello, L. Dessart, R. Farmer, H. Hu, N. Langer, R.H.D. Townsend, D.M. Townsley, and F.X. Timmes, *Astrophysical Journal Supplement*, 220, 1, 2015
- r94. [Carbon-rich presolar grains from massive stars: Subsolar  \$^{12}\text{C}/^{13}\text{C}\$  and  \$^{14}\text{N}/^{15}\text{N}\$  ratios and the missing  \$^{15}\text{N}\$](#) , M. Pignatari, E. Zinner, P. Hoppe, C. Jordan, B.K. Gibson, R. Trappitsch, F. Herwig, C.L. Fryer, R. Hirschi, and F.X. Timmes, *Astrophysical Journal Letters*, 808, 2, 2015
- r93. [The Three Dimensional Evolution to Core Collapse of a Massive Star](#), S.M. Couch, E. Chatzopoulos, W.D. Arnett, and F.X. Timmes, *Astrophysical Journal Letters*, 808, 1, 2015

- r92. [On Carbon Burning in Super Asymptotic Giant Branch Stars](#), R. Farmer, C.E. Fields, and F.X. Timmes, *Astrophysical Journal*, 807, 184, 2015
- r91. [Constraints On Explosive Silicon Burning In Core-Collapse Supernovae From Measured Ni/Fe Ratios](#), A. Jerkstrand, F.X. Timmes, G. Magkotsios, S.A. Sim, C. Fransson, J. Spyromilio, J. Sollerman, A. Heger, B. Müller, J. Sollerman, and S.J. Smartt, *Astrophysical Journal*, 807, 110, 2015
- r90. [Statistical Methods for Thermonuclear Reaction Rates and Nucleosynthesis Simulations](#), C. Iliadis, R. Longland, A. Coc, F.X. Timmes and A.E Champagne, *Journal of Physics G: Nuclear and Particle Physics*, 42 034007, 2015
- r89. [Stellar Abundances in the Solar Neighborhood: The Hypatia Catalog](#), N.R. Hinkel, F.X. Timmes, P.A. Young, M.D. Pagano, M.C. Turnbull, *The Astronomical Journal*, 148, 54, 2014
- r88. [The Light Curve Of SN 1987A Revisited: Constraining Production Masses Of Radioactive Nuclides](#), I. Seitenzahl, F.X. Timmes, and G. Magkotsios, *Astrophysical Journal*, 792, 10, 2014
- r87. [On Silicon Group Elements Ejected by Supernovae Type Ia](#), S. De, F.X. Timmes, E.F. Brown, A.C. Calder, D.M. Townsley, T. Athanassiadou, D.A. Chamulak, W.P. Hawley, and D. Jack, *Astrophysical Journal*, 787, 149, 2014
- r86. [Evolution of FLASH, a multi-physics scientific simulation code for high-performance computing](#), A. Dubey and 19 co-authors including F.X. Timmes, *International Journal of High Performance Computing Applications*, 28, 2, 225, 2014
- r85. [Modules for Experiments in Stellar Astrophysics \(MESA\): Planets, Oscillations, Rotation, and Massive Stars](#), B. Paxton, M. Cantiello, P. Arras, L. Bildsten, E.F. Brown, A. Dotter, C. Mankovich, M.H. Montgomery, D. Stello, F.X. Timmes, and R. Townsend, *Astrophysical Journal Supplement*, 208, 4, 2013
- r84. [Advanced burning stages and fate of 8-10  \$M\_{\odot}\$  stars](#), S. Jones, R. Hirschi, K. Nomoto, F.X. Timmes, T. Fischer, F. Herwig, and B. Paxton, *Astrophysical Journal*, 772, 150, 2013
- r83. [STARLIB: A Next-Generation Reaction-Rate Library for Nuclear Astrophysics](#), A.L. Sallaska, C. Iliadis, A.E. Champagne, S. Goriely, S. Starrfield, and F. X. Timmes, *Astrophysical Journal Supplement*, 207, 18, 2013
- r82. [Silicon carbide grains of type C provide evidence for the production of the unstable isotope  \$^{32}\text{Si}\$  in supernovae](#), M. Pignatari, E. Zinner, M. G. Bertolli, R. Trappitsch, P. Hoppe, T. Rauscher, C. Fryer, F. Herwig, R. Hirschi, F. X. Timmes, and F.-K. Thielemann, *Astrophysical Journal Letters*, 771, L7, 2013
- r81. [Production of carbon-rich presolar grains from massive stars](#), M. Pignatari, M. Wiescher, F.X. Timmes, R.J. de Boer, F.-K. Thielemann, C. Fryer, A. Heger, F. Herwig, and R. Hirschi, *Astrophysical Journal Letters*, 767 L22, 2013
- r80. [The  \$^{12}\text{C} + ^{12}\text{C}\$  reaction and the impact on nucleosynthesis in massive stars](#), M. Pignatari, R. Hirschi, M. Wiescher, R. Gallino, M. Bennett, M. Beard, C. Fryer, F. Herwig, G. Rockefeller, and F.X. Timmes, *Astrophysical Journal*, 762, 31, 2013

- r79. [On Simulating Type Ia Supernovae](#), A.C. Calder, B.K. Krueger, A.P. Jackson, D.M. Townsley, E.F. Brown and F.X. Timmes, *Journal of Physics*, 402, 012023, 2012
- r78. [Zero Impact Parameter White Dwarf Collisions in FLASH](#), W.P. Hawley, T. Athanassiadou, and F.X. Timmes, *Astrophysical Journal*, 759, 39, 2012
- r77. [Evaluating Systematic Dependencies of Type Ia Supernovae: The Influence of Central Density](#), B.K. Krueger, A.P. Jackson, A.C. Calder, D.M. Townsley, E.F. Brown, and F.X. Timmes, *Astrophysical Journal*, 757, 175, 2012
- r76. [Mixing of Clumpy Supernova Ejecta into Molecular Clouds](#), L. Pan, S. Desch, E. Scannapieco, and F.X. Timmes, *Astrophysical Journal*, 756, 102, 2012
- r75. [The effect of  \$^{12}\text{C} + ^{12}\text{C}\$  rate uncertainties on the evolution and nucleosynthesis of massive stars](#), M. E. Bennett, R. Hirschi, M. Pignatari, S. Diehl, C. Fryer, F. Herwig, A. Hungerford, K. Nomoto, G. Rockefeller, F.X. Timmes, and M. Wiescher, *Monthly Notices of the Royal Astronomical Society*, 420, 3047, 2012
- r74. [Remnants of Binary White Dwarf Mergers](#), C. Raskin, E. Scannapieco, G. Rockefeller, C.L. Fryer, and F.X. Timmes, *Astrophysical Journal*, 746, 62, 2012
- r73. [Freeze-out Yields of Radioactivities in Core-collapse Supernovae](#) G. Magkotsios, F.X. Timmes, and M. Wiescher, *Astrophysical Journal*, 741 78, 2011
- r72. [Modules for Experiments in Stellar Astrophysics \(MESA\)](#), B. Paxton, L. Bildsten, A. Dotter, F. Herwig, P. Lesaffre, and F.X. Timmes, *Astrophysical Journal Supplement*, 192 3, 2011
- r71.  [\$^{44}\text{Ti}\$  and  \$^{56}\text{Ni}\$  from Core-Collapse Supernovae](#), G. Magkotsios, F.X. Timmes, A. Hungerford, C.L. Fryer, P. Young, and M. Wiescher, *Astrophysical Journal Supplement*, 191 66, 2010
- r70.  [\$^{56}\text{Ni}\$  Production in Double-degenerate White Dwarf Collisions](#), C. Raskin, E. Scannapieco, G. Rockefeller, C.L. Fryer, S. Diehl and F.X. Timmes, *Astrophysical Journal*, 724 111, 2010
- r69. [Evaluating Systematic Dependencies of Type Ia Supernovae: The Influence of Deflagration to Detonation Density](#), A.P. Jackson, A.C. Calder, D.M. Townsley, D.A. Chamulak, E.F. Brown, and F.X. Timmes, *Astrophysical Journal*, 720 99, 2010
- r68. [On Variations of the Brightness of Type Ia Supernovae with the Age of the Host Stellar Population](#), B.K. Krueger, A.P. Jackson, D.M. Townsley, A.C. Calder, E.F. Brown, and F.X. Timmes, *Astrophysical Journal*, 719 L5, 2010
- r67. [Spectra of Type Ia Supernovae from Double Degenerate Mergers](#), C.L. Fryer and 16 others including F.X. Timmes, *Astrophysical Journal*, 725 296, 2010
- r66. [The effect of  \$^{12}\text{C} + ^{12}\text{C}\$  rate uncertainties on s-process yields](#), M.E. Bennet and 11 others including F.X. Timmes, *Journal of Physics*, 202, 012023, 2010
- r65. [On Type Ia Supernovae From The Collisions of Two White Dwarfs](#), C. Raskin, F.X. Timmes, E. Scannapieco, S. Diehl, and C. Fryer, *Monthly Notices of the Royal Astronomical Society*, 399L, 156, 2009



- r64. [Evaluating Systematic Dependencies of Type Ia Supernovae: The Influence of Progenitor  \$^{22}\text{Ne}\$  Content on Dynamics](#), D.M.Townsley, A.P. Jackson, A.C. Calder, D.A. Chamulak, E.F. Brown, and F.X. Timmes, *Astrophysical Journal*, 701, 1582, 2009
- r63. [The Effects of the pep Nuclear Reaction and Other Improvements in the Nuclear Reaction Rate Library on Simulations of the Classical Nova Outburst](#), S. Starrfield, C. Iliadis, W.R. Hix, F.X. Timmes, and W.M. Sparks, *Astrophysical Journal*, 692, 1532, 2009
- r62. [Proton-rich Nuclear Statistical Equilibrium](#), I.R. Seitenzahl, F.X. Timmes, A. Marin-Lafleche, E.F. Brown, G. Magkotsios, and J. Truran, *Astrophysical Journal*, 685, L129, 2008
- r61. [The Reduction of the Electron Abundance during the Pre-explosion Simmering in White Dwarf Supernovae](#), D. Chamulak, E.F. Brown, F.X. Timmes, and K. Dupczak, *Astrophysical Journal*, 677, 160, 2008
- r60. [The Laminar Flame Speedup by Neon-22 Enrichment in White Dwarf Supernovae](#), D. Chamulak, E.F. Brown, and F.X. Timmes, *Astrophysical Journal*, 655, L93, 2007
- r59. [r-Process from Supernova Fallback](#) Christopher L. Fryer, Aimee Hungerford, Falk Herwig, and F.X. Timmes, *Astrophysical Journal*, 626, L141, 2006
- r58. [Hydrodynamic simulations of He-shell flash convection](#), F. Herwig, B. Freytag, R. M. Hueckstaedt and F.X. Timmes, *Astrophysical Journal*, 642, 1057, 2006
- r57. [Local Ignition in Carbon/Oxygen White Dwarfs – I: One-zone Ignition and Spherical Shock Ignition of Detonations](#), L. Jonathan Dursi and F.X. Timmes *Astrophysical Journal*, 641, 1071, 2006
- r56. [Constraints on the Progenitor of Cassiopeia A](#), P.A. Young, C.L. Fryer, A. Hungerford, D. Arnett, G. Rockefeller, F.X. Timmes, B. Voit, C.Meakin, K.Erickson, *Astrophysical Journal*, 640, 891, 2006
- r55. [Changing the r-Process Paradigm](#), C.L. Fryer, A. Hungerford, F.X. Timmes *Nuclear Physics A*, 758, 599, 2005
- r54. [Studies of Accretion onto Hot, Massive White Dwarfs: The Growth to the Chandrasekhar Limit?](#), S. Starrfield, W.R. Hix, F.X. Timmes, E.M. Sion, W.M. Sparks, S.J. Dwyer, *Nuclear Physics A*, 758, 455, 2005
- r53. [Nucleosynthetic Signatures of Asymmetric Supernovae - Lessons from 1-dimensional Explosions](#), A. Hungerford, C.L. Fryer, F.X. Timmes, K. McGhee, *Nuclear Physics A*, 758, 15, 2005
- r52. [Understanding Compact Object Formation and Natal Kicks. I. Calculation Methods and the Case of GRO J1655-40](#), B. Willems, M. Henninger, T. Levin, N. Ivanova, V. Kalogera, K. McGhee, K. F.X. Timmes, C.L. Fryer, *Astrophysical Journal*, 625, 324, 2005
- r51. [On the Nonlinear Evolution of Wind-driven Gravity Waves](#), A. Alexakis, A.C. Calder, L.J. Dursi, R. Rosner, J.W. Truran, B. Fryxell, M. Zingale, F.X. Timmes, K. Olson, P.M. Ricker, *Physics of Fluids*, 16, 9, 3256, 2004

- r50. [Morphology of Rising Hydrodynamic and Magneto-hydrodynamic Bubbles from Numerical Simulations](#), K. Robinson, L.J. Dursi, P.M. Ricker, R. Rosner, T. Linde, M. Zingale, A.C. Calder, B. Fryxell, J.W. Truran, A. Ceres, K. Olson, K. Riley, A. Siegel, & N. Vladimirova, *Astrophysical Journal*, 601, 621, 2004
- r49. [A Comparison of High-Resolution 3D Numerical Simulations of Turbulent Rayleigh-Taylor \(RT\) Instability: Alpha-Group Collaboration](#), G. Dimonte, D. Youngs, A. Dimits, S. Weber, M. Marinak, S. Wunsch, C. Garasi, A. Robinson, M. Andrews, P. Ramaprabhu, A. Calder, B. Fryxell, J. Biello, L. Dursi, P. MacNeice, K. Olson, P. Ricker, R. Rosner, F. Timmes, H. Tufo, Y.-N. Young, & M. Zingale, *Physics of Fluids*, 16, 1668, 2004
- r48. [Surface Hydrogen-burning Modeling of Supersoft X-Ray Binaries: Are They Type Ia Supernova Progenitors?](#), S. Starrfield, F.X. Timmes, W.R. Hix, E.M. Sion, W.M. Sparks, & S.J. Dwyer, *Astrophysical Journal Letters*, 612, L53, 2004
- r47. [Validating astrophysical simulation codes](#), A.C. Calder, L.J. Dursi, B. Fryxell, T. Plewa, V.G. Weirs, T. Dupont, H. F. Robey, J.O. Kane, R.P. Drake, B. A. Remington, G. Dimonte, J. Hayes, J. M. Stone, P. M. Ricker, F.X. Timmes, M. Zingale, & K. Olson, *Computing in Science and Engineering*, 10, 6, 2004
- r46. [On Heavy Element Enrichment in Classical Novae](#), A. Alexakis, A.C. Calder, A. Heger, E.F. Brown, L.J. Dursi, J.W. Truran, R. Rosner, D.Q. Lamb, F.X. Timmes, B. Fryxell, M. Zingale, P.M. Ricker, & K. Olson, *Astrophysical Journal*, 602, 931, 2004
- r45. [The Response of Model and Astrophysical Thermonuclear Flames to Curvature and Stretch](#), L.J. Dursi, M. Zingale, A.C. Calder, B. Fryxell, F.X. Timmes, N. Vladimirova, R. Rosner, A. Caceres, D.Q. Lamb, K. Olson, P.M. Ricker, K. Riley, A. Siegel, & J.W. Truran, *Astrophysical Journal*, 595, 955, 2003
- r44. [On Variations in the Peak Luminosity of Type Ia Supernovae](#), F.X. Timmes, Edward F. Brown, J.W. Truran, *Astrophysical Journal*, 590, L83, 2003
- r43. [Mapping Initial Hydrostatic Models in Godunov Codes](#), M. Zingale, L. J. Dursi, J. ZuHone, A. C. Calder, B. Fryxell, T. Plewa, J. W. Truran, A. Caceres, K. Olson, P. M. Ricker, K. Riley, R. Rosner, A. Siegel, F. X. Timmes, & N. Vladimirova, *Astrophysical Journal Supplement*, 143, 539, 2002
- r42. [On Validating an Astrophysical Simulation Code](#), A.C. Calder, B. Fryxell, T. Plewa, R. Rosner, T. Dupont, B.A. Remington, R.P. Drake, G. Dimonte, M. Zingale, L.J. Dursi, F.X. Timmes, K. Olson, P. Ricker, P. MacNeice, & H. Tufo, *Astrophysical Journal*, 143, 201, 2002
- r41. [Numerical Simulations of Thermonuclear Flashes on Neutron Stars](#) B. Fryxell, M. Zingale, F.X. Timmes, D.Q. Lamb, K. Olson, A.C. Calder, L.J. Dursi, P. Ricker, R. Rosner, J.W. Truran, P. MacNeice, & H. Tufo, *Nuclear Physics A*, 688, 172, 2001
- r40. [Helium Detonations on Neutron Stars](#), M. Zingale, F.X. Timmes, B. Fryxell, D.Q. Lamb, K. Olson, A.C. Calder, L.J. Dursi, P. Ricker R. Rosner, P. MacNeice, & H. Tufo, *Astrophysical Journal Supplement*, 133, 195, 2001

- r39. [High-Performance Reactive Fluid Flow Simulations Using Adaptive Mesh Refinement on Thousands of Processors](#), A.C. Calder, B.C. Curtis, L.J. Dursi, B. Fryxell, G. Henry, P. MacNeice, K. Olson, P. Ricker, R. Rosner, F.X. Timmes, H.M. Tufo, J.W. Truran, & M. Zingale, Proceedings of Supercomputing 2000, IEEE Computer Society, 226, Gordon Bell Prize
- r38. [FLASH: An Adaptive Mesh Hydrodynamics Code for Modeling Astrophysical Thermonuclear Flashes](#) B. Fryxell, K. Olson, P. Ricker, F.X. Timmes, M. Zingale, D.Q. Lamb, P. MacNeice, R. Rosner, & H. Tufo, Astrophysical Journal Supplement, 131, 273, 2000
- r37. [On the Cellular Structure of Carbon Detonations](#), F.X. Timmes, M. Zingale, K. Olson, B. Fryxell, P. Ricker, A.C. Calder, L.J. Dursi, J.W. Truran, & R. Rosner, Astrophysical Journal, 543, 938, 2000
- r36. [An Inexpensive Nuclear Energy Generation Network For Stellar Hydrodynamics](#), F.X. Timmes, R.D. Hoffman, & S.E. Woosley, Astrophysical Journal Supplement, 129, 377, 2000
- r35. [Regimes of Helium Burning](#), F.X. Timmes & J. C. Niemeyer, Astrophysical Journal, 537, 993, 2000
- r34. [Flash code: Studying Astrophysical Thermonuclear Flashes](#) R. Rosner, A. Calder, J. Dursi, B. Fryxell, D.Q. Lamb, J. Niemeyer, K. Olson, P. Ricker, F.X. Timmes, J. Truran, H. Tufo, Y. Young, & M. Zingale, Computing in Science and Engineering, 3, 22, 2000
- r33. [The Accuracy, Consistency, and Speed Of An Electron–Positron Equation Of State Based On Table Interpolation Of The Helmholtz Free Energy](#), F.X. Timmes & F. Douglas Swesty, Astrophysical Journal Supplement, 126, 501, 2000
- r32. [Physical Properties of Laminar Helium Deflagrations](#), F.X. Timmes, Astrophysical Journal, 528, 913, 2000
- r31. [The Accuracy, Consistency, and Speed of Five Equations of State For Stellar Hydrodynamics](#), F.X. Timmes & D. Arnett, Astrophysical Journal Supplement, 125, 277, 1999
- r30. [Integration of Nuclear Reaction Networks For Stellar Hydrodynamics](#), F.X. Timmes, Astrophysical Journal Supplement, 124, 241, 1999
- r29. [Gamma-Ray Line Emission From Radioactive Isotopes in Stars and Galaxies](#), R. Diehl & F.X. Timmes, Publications of Astronomical Society of the Pacific, 110, 637 1998
- r28. [Gamma-Ray Line Signals From Supernovae Within 100 Mpc](#), F.X. Timmes & S.E. Woosley, Astrophysical Journal, 489, 160, 1997
- r27. [Synthesis of the Elements in Stars: Forty Years of Progress](#), G. Wallerstein, I. Iben Jr., P. Parker, A.M. Boesgaard, G.M. Hale, A.E. Champagne, C.A. Barnes, F. Kappeler, V.V. Smith, R.D. Hoffman, F.X. Timmes, C. Sneden, R.N. Boyd, B.S. Meyer, D.L. Lambert, Review of Modern Physics, 69, 995, 1997

- r26. [On Flamsteed's supernova Cas A](#), D.H. Hartmann, P. Predehl, J. Greiner, R. Egger, J. Trumper, B. Aschenbach, A.F. Iyudin, R.D. Diehl, U. Oberlack, V. Schoenfelder, M.D. Leising, L.-S. The, F.X. Timmes, S.E. Woosley, R. Hoffman, N. Langer and G. Garcia-Segur Nuclear Physics A, 621, 83, 1997
- r25. [Implications of Presolar Grains for Galactic Chemical Evolution](#) D. D. Clayton & F.X. Timmes, in Astrophysical Implications of the Laboratory Study of Presolar Materials, ed. T. J. Bernatowicz & E. Zinner, American Institute of Physics, 402, 237, 1997
- r24. [Nucleosynthesis in Massive Stars and Supernovae](#), S.E. Woosley, R.D. Hoffman, F.X. Timmes, F.-K. Thielemann & T.A. Weaver, Nuclear Physics A, 621, 445, 1997
- r23. [Cosmic Chemical Evolution](#), J.W. Truran & F.X. Timmes, Nuclear Physics A, 621, 548, 1997
- r22. [Placing the Sun in Galactic Chemical Evolution: Mainstream SiC Particles](#), D. D. Clayton & F.X. Timmes, Astrophysical Journal, 483, 220, 1997
- r21. [Gamma-Ray Line Signals from  \$^{26}\text{Al}\$  and  \$^{60}\text{Fe}\$  in the Galaxies of the Local Group](#), F.X. Timmes & S.E. Woosley, Astrophysical Journal, 481, L81, 1997
- r20. [Constraints from  \$^{26}\text{Al}\$  Measurements on the Galaxy's Recent Global Star Formation Rate and Core Collapse Supernovae Rate](#) F.X. Timmes, R.L. Diehl & D.H. Hartmann, Astrophysical Journal, 479, 760, 1997
- r19. [Light Element Abundances from  \$z=0\$  to  \$z=5\$](#)  F.X. Timmes, J.W. Truran, J. T. Lauroesch, & D.G. York, Astrophysical Journal, 476, 464, 1997
- r18. [Galactic Evolution of Silicon Isotopes: Application to Presolar SiC Grains From Meteorites](#), F.X. Timmes & D. D. Clayton, Astrophysical Journal, 472, 723, 1996
- r17. [Making Black Holes in Supernovae](#), S.E. Woosley & F.X. Timmes, Nuclear Physics A, 606, 137, 1996
- r16. [Production of  \$^{44}\text{Ti}\$  and  \$^{60}\text{Co}\$  in Supernovae](#), F.X. Timmes, S.E. Woosley, R.D. Hoffman, & D.H. Hartmann, Astrophysical Journal, 464, 332, 1996
- r15. [The Neutron Star and Black Hole Initial Mass Function](#), F.X. Timmes, S.E. Woosley, & T.A. Weaver, Astrophysical Journal, 457, 834, 1996
- r14. [News \( \$\nu\$ s\) on the Galactic evolution of Lithium](#) F. Matteucci, F. D'Antona & F.X. Timmes, Astronomy & Astrophysics, 303, 460, 1995
- r13. [Abundance Histories for QSO Absorption Line Systems](#) F.X. Timmes, J. Lauroesch, & J.W. Truran, Astrophysical Journal, 451, 468, 1995
- r12.  [\$^{26}\text{Al}\$  and  \$^{60}\text{Fe}\$  from Supernova Explosions](#) F.X. Timmes, S.E. Woosley, D.H. Hartmann, R. Hoffman, T.A. Weaver & F. Matteucci, Astrophysical Journal, 449, 204, 1995
- r11. [The Road To Iron Leads Through  \$^{56}\text{Ni}\$](#) , J.W. Truran & F.X. Timmes, Physics Reports, 256, 193, 1995

- 
- r10. [Galactic Chemical Evolution: Hydrogen through Zinc](#), F.X. Timmes, S.E. Woosley, & T.A. Weaver, *Astrophysical Journal Supplement*, 98, 617, 1995
  - r9. [Optically Thick Winds: What Determines The Mass Flux?](#), A. Glasner & F.X. Timmes, *Astrophysical Journal*, 445, 411, 1995
  - r8. [On The Acceleration Of Nuclear Flame Fronts in White Dwarfs](#), F.X. Timmes, *Astrophysical Journal*, 426, L107, 1994
  - r7. [The Conductive Propagation Of Nuclear Flames II. Convectively Bounded CO and ONeMg Compositions](#), F.X. Timmes, S.E. Woosley & R. E. Taam, *Astrophysical Journal*, 420, 336, 1994
  - r6. [Reactive Flows in Compact Objects](#), F.X. Timmes, Ph.D. Thesis, June, 1993
  - r5. [On The Galactic Chemical Evolution of the Intermediate Mass Elements](#), S.E. Woosley, F.X. Timmes & T.A. Weaver, *Journal of Physics G, Nuclear and Particle Physics*, 19, 183, 1993
  - r4. [The Conductive Propagation Of Nuclear Flames I. Degenerate C+O and O+Ne+Mg White Dwarfs](#), F.X. Timmes & S.E. Woosley, *Astrophysical Journal*, 396, 649, 1992
  - r3. [On the Thermal Conductivity Due To Collisions Between Relativistic & Degenerate Electrons](#), F.X. Timmes, *Astrophysical Journal*, 390, L107, 1992
  - r2. [Advanced Technology Devices and Circuit Optimization](#), A. K. Doganis & F.X. Timmes, *Computers and Integrated Systems*, 1987
  - r1. [Two Dimensional Device Modeling of High Voltage Lateral DMOSFET's](#), R. Williams, F.X. Timmes, R. Busse & I. Siu, *Publications of Electro-Chemical Society*, 1986

**Unrefereed Publications**

- u159. [Presupernova neutrinos: realistic emissivities from stellar evolution](#), Kelly M. Patton, Cecilia Lunardini, Robert J. Farmer, and Frank Timmes, APS April Meeting 2017, abstract id. C4.006, April 2017
- u158. [The Fate of Exploding Carbon-Oxygen Chandrasekhar-Mass White Dwarfs: The Production of Stable Iron-Peak Elements in the Type Ia Supernova Remnant 3C 397](#), R. Fisher, P. Dave, R. Kashyap, F.X. Timmes, D. Townsley, American Astronomical Society, AAS Meeting #229, id.308.02, January 2017
- u157. [On Variations Of Pre-Supernova Model Properties](#), R. Farmer, C.E. Fields, I. Petermann, Luc Dessart, M. Cantiello, B. Paxton, & F.X. Timmes, American Astronomical Society, AAS Meeting #229, id.308.01, January 2017
- u156. [The Turbulent Diffusivity of Convective Overshoot](#), Daniel Lecoanet, Josiah Schwab, Eliot Quataert, Lars Bildsten, F.X. Timmes, Keaton J. Burns, Geoffrey M. Vasil, Jeffrey S. Oishi, & Benjamin P. Brown, APS Division of Fluid Dynamics, abstract #G10.005, November 2016
- u155. [2016 Software Infrastructure for Sustained Innovation \(SI2\) Principal Investigators Workshop](#), F.X. Timmes, Matthew Turk, Stan Ahalt, Shaowen Wang, Ray Idaszak, Richard Brower, Chris Lenhardt, & Karl Gustafson, National Science Foundation, June 2016
- u154. [The Importance of Computation in Astronomy Education](#) M. Zingale, F.X. Timmes, R. Fisher, & B.W. O'Shea, Input to American Astronomical Society Education Task Force, May 2016
- u153. [On The Origin of The Elements: The Spectacular Role of White Dwarfs](#) C.E. Fields, R. Farmer, Ilka Petermann, F.X. Timmes, AAS Meeting #227, id.144.01, January 2016
- u152. [Help, my star is on fire - Carbon burning flames in SAGB stars](#), R. Farmer, C. Fields, F.X. Timmes, AAS Meeting #227, id.345.05, January 2016
- u151. [Modeling Astrophysical Explosions with Sustained Exascale Computing](#) M. Zingale, A. Calder, M. Malone, F.X. Timmes, Response to RFI NOT-GM-15-122: Science Drivers Requiring Capable Exascale High Performance Computing, October 2015
- u150. [2015 Software Infrastructure for Sustained Innovation \(SI2\) Principal Investigators Workshop](#), F.X. Timmes, Stan Ahalt, Matthew Turk, Ray Idaszak, Mark Schildhauer, Richard Brower, Chris Lenhardt, & Karl Gustafson National Science Foundation, April 2015
- u149. [The Evolution of Carbon Burning Flames Inside Super Asymptotic Giant Branch Stars](#), C.E. Fields, R. Farmer, and F.X. Timmes, APS March Meeting 2015, abstract #V1288
- u148. [Studies of Accretion of Solar Material onto White Dwarfs: They are all Growing in Mass](#), S. Starrfield and F.X. Timmes, American Astronomical Society, HEAD meeting #14, #121.02, 2014
- u147. [Evolution of Accreting White Dwarfs: Some of Them Continue to Grow](#), G. Newsham, S. Starrfield, and F.X. Timmes, Stella Novae: Past and Future Decades. ASP Conference Series, Vol. 490, 2014

- u146. [Mixing of Clumpy Supernova Ejecta into Nearby Molecular Clouds](#), Desch, S. J.; Pan, L.; Scannapieco, E.; Timmes, F. X., 44th Lunar and Planetary Science Conference, held March 18-22, 2013 in The Woodlands, Texas, 1719, p.2692, 2013
- u145. [Evolution of accreting white dwarfs; some of them continue to grow](#), Newsham, G.; Starrfield, S.; Timmes, F.X., ASP Conference Series: Stella Nova: Future and Past Decades, 2013
- u144. [Constraining Type Ia Supernova Progenitors](#). Scannapieco, E.; Raskin, C.; Valle, M. Della; Fryer, C.; Rhoads, J.; Rockefeller, G.; Timmes, F. X., Binary Paths to Type Ia Supernovae Explosions, Proceedings of the International Astronomical Union, IAU Symposium, Volume 281, p. 275-279, 2013
- u143. [Hydrodynamic Studies of the Evolution of Recurrent Novae to Supernova Ia Explosions](#). Starrfield, S.; Timmes, F. X.; Hix, W. R.; Iliadis, C.; Arnett, W. D.; Meakin, C.; Sparks, W. M., Binary Paths to Type Ia Supernovae Explosions, Proceedings of the International Astronomical Union, IAU Symposium, Volume 281, p. 166-171, 2013
- u142. Model Independent Determination of Electron Fraction for Individual SNIa. De, Soma; Timmes, F.; Hawley, W.; Chamulak, D.; Athanassiadou, T.; Jack, D.; Calder, A.; Brown, E.; Townsley, D. American Astronomical Society, AAS Meeting 221, 443.20, 2013
- u141. Non-Zero Impact Parameter White Dwarf Collisions in FLASH. Hawley, Wendy; Timmes, F. X. American Astronomical Society, AAS Meeting 221, 253.27, 2013
- u140. [Hydrodynamic Studies of the Evolution of Recurrent, Symbiotic and Dwarf Novae: the White Dwarf Components are Growing in Mass](#). S. Starrfield, F.X. Timmes, C. Iliadis, W.R. Hix, W.D. Arnett, C. Meakin, W.M. Sparks, Baltic Astronomy, 21, 76, 2012
- u139. [The Influence of Central Density on the Brightness of Type Ia Supernovae](#), A.C. Calder, B.K. Krueger, A.P. Jackson, D.M. Townsley, E.F. Brown, & F.X. Timmes, American Astronomical Society, AAS Meeting 219, 242.16, 2012
- u138. [Off-center Collisions of two White Dwarfs: A Type Ia Supernova Progenitor Scenario](#), T. Athanassiadou, W. Hawley, F.X. Timmes, American Astronomical Society, AAS Meeting 219, 436.01, 2012
- u137. [White Dwarf Collisions: Grid versus Particle Codes](#), W. Hawley, T. Athanassiadou, F.X. Timmes, C. Raskin, & M. Richardson, American Astronomical Society, AAS Meeting 219, 436.05, 2012
- u136. [Progenitors of electron-capture supernovae](#), S. Jones, R. Hirschi, F. Herwig, B. Paxton, F.X. Timmes, & K. Nomoto, Death of Massive Stars: Supernovae and Gamma-Ray Bursts, Proceedings of the International Astronomical Union, IAU Symposium, Volume 279, 341, 2012
- u135. [Theoretical Studies of Accretion of Matter onto White Dwarfs and the Single Degenerate Scenario for Supernovae of Type Ia](#), S. Starrfield, C. Iliadis, F.X. Timmes, W.R. Hix, W.D. Arnett, C. Meakin, & W.M. Sparks, Bulletin of the Astronomical Society of India, 2012

- u134. [Analyzing the Chemical Abundances of Local Habitable Stellar Systems via NatCat](#), N.R. Hinkel, M. Turnbull, and F.X. Timmes, EPSC-DPS Joint Meeting 2011, held 2-7 October 2011 in Nantes, France
- u133. [Radiative Transfer Calculation Of Light Curves And Spectra For Type Ia Sne Models](#), S. De, E. Barron, F.X. Timmes, and P. Hauschildt, American Astronomical Society, AAS Meeting #217, #434.24, Bulletin of the American Astronomical Society, Vol. 43, 2011
- u132. [White Dwarf Collisions as Potential SNIa Progenitors](#), W. Hawley, T. Athanassiadou, C. Raskin, M. Richardson, E. Scannapieco, and F. X. Timmes, American Astronomical Society, AAS Meeting #217, #341.09, Bulletin of the American Astronomical Society, Vol. 43, 2011
- u131. [Nucleosynthesis from Off-Center Collisions of Two White Dwarfs](#) T. Athanassiadou, W. Hawley, and F.X. Timmes, American Astronomical Society, AAS Meeting #217, #337.06, Bulletin of the American Astronomical Society, Vol. 43, 2011
- u130. [Evaluating Systematic Dependence of Type Ia Supernovae: The Influence of Progenitor Central Density](#) B.K. Krueger, A.P. Jackson, A.C. Calder, D.M. Townsley, E.F. Brown, and F.X. Timmes American Astronomical Society, AAS Meeting #217, #337.01, Bulletin of the American Astronomical Society, Vol. 43, 2011
- u129. [On the Role of Turbulence in Type Ia Supernovae](#) A.P. Jackson, A.C. Calder, D.M. Townsley, D.A. Chamulak, E.F. Brown, and F.X. Timmes, American Astronomical Society, AAS Meeting #217, #324.06, Bulletin of the American Astronomical Society, Vol. 43, 2011
- u128. [Elemental Abundance Mapping for Determining Nearby Habitable Stellar Systems](#) N.R. Hinkel, S. Schmidt, N. Tr'Ehnl, and F.X. Timmes, American Astronomical Society, AAS Meeting #217, #319.01, Bulletin of the American Astronomical Society, Vol. 43, 2011
- u127. [Evaluating Systematic Dependencies of Type Ia Supernovae](#), A.C. Calder, B.K. Krueger, A.P. Jackson, D.M. Townsley, F.X. Timmes, E.F. Brown, and D.A. Chamulak, Proceedings of the SciDAC 2010 meeting
- u126. [Diagnostics for Thermonuclear and Core-Collapse Supernovae](#), F.X. Timmes, American Physical Society, 2010 Fall Meeting of the APS Division of Nuclear Physics, November 2-6, 2010, abstract #2WB.003
- u125. [Supernova Dust Injection into the Solar System: Then and Now](#), T. Athanassiadou, S. Desch, B. Fields, N. Ouellette, and F.X. Timmes, Astrobiology Science Conference 2010: Evolution and Life: Surviving Catastrophes and Extremes on Earth and Beyond, held April 26-20, 2010 in League City, Texas. LPI Contribution No. 1538, p.5581
- u124. [Mixing of Supernova Ejecta into Molecular Clouds](#), L. Pan, S. Desch, E. Scannapaieco, and F.X. Timmes, Astrobiology Science Conference 2010: Evolution and Life: Surviving Catastrophes and Extremes on Earth and Beyond, held April 26-20, 2010 in League City, Texas. LPI Contribution No. 1538, p.5580
- u123. [Constructing an Updated Catalog of Nearby Habitable Stellar Systems with Elemental Ratios](#), N. Tre'nhl, F.X. Timmes, M. Turnbull, P.A. Young, and S. Schmidt, Astrobiology



- Science Conference 2010: Evolution and Life: Surviving Catastrophes and Extremes on Earth and Beyond, held April 26-20, 2010 in League City, Texas. LPI Contribution No. 1538, p.5399
- u122. [The Turbulent Origin of the Elements: Dynamical/Chemical Evolution and Explosions of Massive Stars and Implications for Astrobiology](#), P.A. Young, F.X. Timmes, and N. Tre'nhl, Astrobiology Science Conference 2010: Evolution and Life: Surviving Catastrophes and Extremes on Earth and Beyond, held April 26-20, 2010 in League City, Texas. LPI Contribution No. 1538, p.5395
- u121. [The Composition of Dwarfs in the Solar Neighborhood](#), M. Pagano, P.A. Young, F.X. Timmes, and J.C. Bond, American Astronomical Society, AAS Meeting #215, #605.03
- u120. [Evaluating Systematic Dependencies of Type Ia Supernovae: The Influence of Deflagration to Detonation Density](#), A.P. Jackson, A.C. Calder, D.M. Townsley, D.A. Chamulak, E.F. Brown, and F.X. Timmes, American Astronomical Society, AAS Meeting #215, #430.25
- u119. [Observations and Hydrodynamic Simulations of the 2000 Outburst of the Helium Nova: V445 Puppis](#), S. Starrfield, F.X. Timmes, and R.M. Wagner, W.R. Hix, C. Iliadis, and W.M. Sparks American Astronomical Society, AAS Meeting #215, #416.28
- u118. [Trends in  \$^{44}\text{Ti}\$  and  \$^{56}\text{Ni}\$  from Core-Collapse Supernovae](#), G. Magkotsios, F.X. Timmes, A. Hungerford, C.L. Fryer. P.A. Young, and M. Wiescher, American Physical Society, 2010 Fall Meeting of the APS Division of Nuclear Physics, November 2-6, 2010, abstract #HG.005
- u117. [New Hydrodynamic Studies of the Explosion of RS Oph](#), S. Sumner, T. Sunayama, M. Smith, C. Iliadis, W.R. Hix, F.X. Timmes, and W.M. Sparks, American Astronomical Society Meeting 214, 428.05, 2009
- u116. [Supernova Bullets Impinging Upon Molecular Clouds](#), B. Perret & F.X. Timmes 40th Lunar and Planetary Science Conference, 2009
- u115. [Tracing the Cosmic Star Formation History to its Beginnings: GRBs as Tools](#), D.H. Hartmann, and 20 others including F.X. Timmes, Astro2010: The Astronomy and Astrophysics Decadal Survey, Science White Papers, no. 115
- u114. [Reading the Metal Diaries of the Universe: Tracing Cosmic Chemical Evolution](#), D.H. Hartmann, and 84 others including F.X. Timmes, Astro2010: The Astronomy and Astrophysics Decadal Survey, Science White Papers, no. 114
- u113. [Nuclei in the Cosmos](#), T. Beers, A.B. Brown, C. Brune, A. Champagne, C. Iliadis, L. Williams, B. O'Shea, P. Parker, R. Rutledge, M. Smith, S. Starrfield, A. Steiner, F.X. Timmes, J. Truran, M. Wiescher, & R. Zemco, Astro2010: The Astronomy and Astrophysics Decadal Survey, Science White Papers, no. 27
- u112. [Complete nucleosynthesis calculations for low-mass stars from NuGrid](#), M. Pignatari, F. Herwig, M. Bennett, S. Diehl, C.L. Fryer, R. Hirschi, A. Hungerford, G. Magkotsios, G. Rockefeller, F.X. Timmes, & P. Young, in 10th Symposium on Nuclei in the Cosmos, Proceedings of Science, 53, NIC X, 2009

- u111. [Spatial Distribution of Nucleosynthesis Products in Cassiopeia A: Comparison Between Observations and 3D Explosion Models](#), P. Young, C. Ellinger, F.X. Timmes, D. Arnett, C.L. Fryer, G. Rockefeller, A. Hungerford, S. Diehl, M. Pignatari, M. Bennet, R. Hirschi, & F. Herwig, in 10th Symposium on Nuclei in the Cosmos, Proceedings of Science, 20, NIC X, 2009
- u110. [NuGrid: s-process in massive stars](#), R. Hirschi, U. Frischknecht, F.-K. Thielemann, M. Pignatari, M. Bennet, S. Diehl, C.L. Fryer, F. Herwig, A. Hungerford, G. Magkotsios, G. Rockefeller, F.X. Timmes, & P. Young, in 10th Symposium on Nuclei in the Cosmos, Proceedings of Science, 83, NIC X, 2009
- u109. [Nucleosynthesis simulations for a wide range of nuclear production sites from NuGrid](#), F. Herwig, M. Bennet, S. Diehl, C.L. Fryer, R. Hirschi, A. Hungerford, G. Magkotsios, G. Rockefeller, F.X. Timmes, & P. Young, in 10th Symposium on Nuclei in the Cosmos, Proceedings of Science, 23, NIC X, 2009
- u108.  [\$^{44}\text{Ti}\$  and  \$^{56}\text{Ni}\$  in core-collapse supernovae](#), G. Magkotsios, F.X. Timmes, M. Wiescher, C.L. Fryer, A. Hungerford, P. Young, M. Bennet, S. Diehl, F. Herwig, R. Hirschi, M. Pignatari, & G. Rockefeller, in 10th Symposium on Nuclei in the Cosmos, Proceedings of Science, 112, NIC X, 2009
- u107. [Nucleosynthetic Yields from “Collapsars”](#), G. Rockefeller, C.L. Fryer, P. Young, M. Bennet, S. Diehl, F. Herwig, R. Hirschi, A. Hungerford, M. Pignatari, G. Magkotsios, & F.X. Timmes, in 10th Symposium on Nuclei in the Cosmos, Proceedings of Science, 119, NIC X, 2009
- u106. [Nucleosynthesis Calculations from Core-Collapse Supernovae](#), C.L. Fryer, P. Young, M. Bennet, S. Diehl, F. Herwig, R. Hirschi, A. Hungerford, M. Pignatari, G. Magkotsios, G. Rockefeller, & F.X. Timmes, in 10th Symposium on Nuclei in the Cosmos, Proceedings of Science, 101, NIC X, 2009
- u105. [NuGrid: Toward High Precision Double-Degenerate Merger Simulations with SPH in 3D](#), Diehl, S., C.L. Fryer, A. Hungerford, G. Rockefeller, M. Bennet, F. Herwig, R. Hirschi, M. Pignatari, G. Magkotsios, F.X. Timmes, P. Young, G.C. Clayton, & J.E. Tohline, in 10th Symposium on Nuclei in the Cosmos, Proceedings of Science, 155, NIC X, 2009
- u104. [Difficulties in Probing Nuclear Physics: A Study of  \$^{44}\text{Ti}\$  and  \$^{56}\text{Ni}\$](#)  A. Hungerford, C.L. Fryer, F.X. Timmes, P. Young, M. Bennet, S. Diehl, F. Herwig, R. Hirschi, M. Pignatari, G. Magkotsios, & G. Rockefeller, in 10th Symposium on Nuclei in the Cosmos, Proceedings of Science, 106, NIC X, 2009
- u103. [Theory and Numerics: New Results on Convection in Stars](#) D. Arnett, C. Meakin, S. Starfield, F.X. Timmes, and P. Young in IXth Torino Workshop on Evolution and Nucleosynthesis in AGB Stars and the IIInd Perugia Workshop on Nuclear Astrophysics, AIP Conference Proceedings, Volume 1001, pp. 287-294 (2008).
- u102. [Convective and non-convective mixing in AGB stars](#), F. Herwig, B. Freytag, T. Fuchs, J.P. Hansen, R.M. Hueckstaedt, David H. Porter, F.X. Timmes, Paul R. Woodward, in Why Galaxies Care About AGB Stars, eds. Franz Kerschbaum, Hans Olofsson and Robert Wing, ASP Conference Proceedings, in press 2007

- u101. [The Effects of Changes in Reaction Rates on Simulations of Nova Explosions](#), S. Starrfield, C. Iliadis, W.R. Hix, F.X. Timmes and W.M.Sparks, Proceedings of the Tours Nuclear Astrophysics, Symposium, ed. M. Arnould, AIP conference proceedings, 2007
- u100. [The Laminar Flame Speedup by Neon-22 Enrichment in White Dwarf Supernovae](#), D. Chamulak, E.F. Brown, and F.X. Timmes, AAS/AAPT Joint Meeting, American Astronomical Society Meeting 209, #150.21; Bulletin of the American Astronomical Society, Vol. 38, p.1101, 2007
- u99. [Multi-dimensional Simulations of Helium Shell Flash Convection](#), R.M. Hueckstaedt, B. Freytag, F. Herwig, F.X. Timmes AAS/AAPT Joint Meeting, American Astronomical Society Meeting 209, #101.07; Bulletin of the American Astronomical Society, Vol. 38, p.1046, 2007
- u98. [Local Ignition in Carbon/Oxygen White Dwarfs - One-zone Ignition and Spherical Shock Ignition of Detonations](#), L.J. Dursi & F.X. Timmes AAS/AAPT Joint Meeting, American Astronomical Society Meeting 209, #101.07; Bulletin of the American Astronomical Society, Vol. 38, p.1046, 2007
- u97. [Astrophysics at RIA \(ARIA\) Working Group](#), M.Smith, H. Schatz, F.X. Timmes, M. Wiescher, U. Greife, International Symposium on Origin of Matter and Evolution of Galaxies 2005: New Horizon of Nuclear Astrophysics and Cosmology, American Institute of Physics, 847, 467, 2006
- u96. [Astrophysics at the future Rare Isotope Accelerator](#), M.Smith, H. Schatz, F.X. Timmes, M. Wiescher, U. Greife, Proceedings of the International Symposium on Nuclear Astrophysics, Nuclei in the Cosmos - IX, CERN, p179 2006
- u95. [Laminar flame acceleration by neon enrichment in White Dwarf supernovae](#), D. Chamulak, E.F. Brown, and F.X. Timmes, Proceedings of the International Symposium on Nuclear Astrophysics, Nuclei in the Cosmos - IX, CERN, p79, 2006
- u94. Verification for Code Project A, Calculation verification to span the abyss, and QMU activities for a Lifetime Extension Project (U), F.X. Timmes, Los Alamos National Laboratory, 2006, LA-CP-06-1131
- u93. Calculation Verification for Eulerian Hydrocodes, T. Tippetts, F.X. Timmes, J.R. Kamm, J.Brock, Los Alamos National Laboratory, 2006, LA-UR-06-7431
- u92. Certification for Code Project A, F.X. Timmes, Los Alamos National Laboratory, 2006, LA-UR-06-7632
- u91. Verification for Code Project A, Calculation verification to span the abyss, and QMU activities for a Lifetime Extension Project, F.X. Timmes, Los Alamos National Laboratory, 2006, LA-UR-06-7631
- u90. [Accelerated Strategic Computing Newsletter](#), F.X. Timmes, Los Alamos National Laboratory, 2006, LA-UR-06-7270
- u89. Addendum to Note on Calculation Verification progress for Code project A (U), T. Tippetts, F.X. Timmes, J.R. Kamm, J.Brock, Los Alamos National Laboratory, 2006, LA-CP-06-1054

- u88. [Note on Calculation Verification progress for Code project A](#), T. Tippetts, F.X. Timmes, J.R. Kamm, J.Brock, Los Alamos National Laboratory, 2006, LA-UR-06-7225
- u87. [Two- and Three-dimensional properties of the Tri-Lab Verification Test Suite for Code Project A](#), F.X. Timmes, B. Fryxell, and G. Hrbek, Los Alamos National Laboratory, 2006, LA-UR-06-6697
- u86. Addendum to Spatial-temporal convergence properties of the Tri-Lab Verification Test suite in 1D for Code Project A (U), F.X. Timmes, B. Fryxell, and G. Hrbek, Los Alamos National Laboratory, 2006, LA-CP-06-1052
- u85. [Spatial-temporal convergence properties of the Tri-Lab Verification Test suite in 1D for Code Project A](#), F.X. Timmes, B. Fryxell, and G. Hrbek, Los Alamos National Laboratory, 2006, LA-UR-06-6444
- u84. Automated Analyses of the Tri-Lab Verification Test Suite on Uniform and Adaptive Grids for Code Project A (U), F.X. Timmes, Los Alamos National Laboratory, 2006, LA-CP-06-0055
- u83. [Open Issues in Core-Collapse Supernovae - Progenitors and 3-Dimensional Simulations](#), C.L. Fryer, G. Rockefeller, F.X. Timmes, A. Hungerford, and K.E. Belle Open Issues in Core Collapse Supernova Theory. National Institute for Nuclear Theory, University of Washington, Seattle: June 22-24, 2005. Eds. Anthony Mezzacappa and George M. Fuller.
- u82. [The Effects of Improvements in the Nuclear Reaction Rates on Hydrodynamic Simulations of the Classical Nova Outburst](#), S. Starrfield, C. Iliadis, W.R. Hix, F.X. Timmes and W.M.Sparks, American Astronomical Society, 207, 7024, 2005
- u81. [Automated Analyses of the Tri-Lab Verification Test Suite on Uniform and Adaptive Grids for Code Project A](#), F.X. Timmes, G. Gisler, G. Hrbek, Los Alamos National Laboratory, 2005, LA-UR-05-6865
- u80. [Analytical Solutions Codes](#), F.X. Timmes, Los Alamos National Laboratory, 2005, LA-CC-05-101
- u79. [Tools and toys in nuclear astrophysics: nuclear reaction network techniques](#), F.X. Timmes, Notre Dame Summer School, 2005, LA-UR-05-5029
- u78. The Theoretical Astrophysics Group, F.X. Timmes, T-Division Review Committee, 2005, LA-UR-05-3045
- u77. [Hot Spot Ignition in White Dwarfs - One Zone Ignition Times](#), L.J. Dursi, F.X. Timmes, 22<sup>nd</sup> Texas Symposium on Relativistic Astrophysics, 2005
- u76. On the Tri-Lab Verification Test Suite problems, F.X. Timmes, Los Alamos National Laboratory, LA-UR-05-6781, 2005
- u75. Progress report on three more Tri-Lab Verification Test Suite problems, F.X. Timmes, Los Alamos National Laboratory, LA-UR-05-3289, 2005

- u74. Progress report on three of the Tri-Lab verification test suite problems, F.X. Timmes, Los Alamos National Laboratory, LA-UR-05-2689, 2005
- u73. [The Abundance of Interstellar Fluorine](#), J.T., Lauroesch, D.G. York, J.W. Truran, F.X. Timmes, Bulletin of the American Physical Society, 205, 57.06, 205
- u72. [Further Studies of Accretion onto Hot, Massive, White Dwarfs: The Growth to the Chandrasekhar Limit](#), S. Starrfield, F.X. Timmes, W.R. Hix, E.M. Sion, W.M. Sparks, S.J. Dwyer, Bulletin of the American Physical Society, 204, 74.10, 2004
- u71. [On Variations in the Peak Luminosity of Type Ia Supernovae](#), F.X. Timmes, E.F. Brown, & J. Truran, Cosmic explosions in three dimensions: asymmetries in supernovae and gamma-ray bursts, Eds., P. Hoflich, P. Kumar & J. C. Wheeler, Cambridge contemporary astrophysics series. p.17, 2004.
- u70. [Semi-Steady burning evolutionary sequences for CAL 83 and CAL 87: Super Soft X-ray binaries are supernova Ia progenitors](#), S. Starrfield, F.X. Timmes, W.R. Hix, E.M. Sion, W.M. Sparks, & S. Dwyer, Cosmic explosions in three dimensions: asymmetries in supernovae and gamma-ray bursts, Eds., P. Hoflich, P. Kumar & J. C. Wheeler, Cambridge contemporary astrophysics series. p.17, 2004.
- u69. [Microphysical Effects on the Instabilities of Astrophysical Flames](#), L.J. Dursi, R. Rosner, M. Zingale, A.C. Calder, B. Fryxell, F.X. Timmes, N. Vladimirova, A. Caceres, D.Q. Lamb, K. Olson, P. Ricker, K. Riley, A. Siegel, & J.W. Truran, Bulletin of the American Physical Society, 203, 125.02, 2003
- u68. [On Heavy Element Enrichment in Classical Novae](#), A. Alexakis, A.C. Calder, A. Heger, E.F. Brown, L.J. Dursi, J.W. Truran, R. Rosner, D.Q. Lamb, F.X. Timmes, B. Fryxell, M. Zingale, P.M. Ricker, & K. Olson, Bulletin of the American Physical Society, 203, 125.04, 2003
- u67. [Unstable H/He Burning on Accreting Neutron Stars](#), F. Peng, E.F. Brown, F.X. Timmes, & J. Truran, in AAS/High Energy Astrophysics Division, 35, 17.18, 2003
- u66. [Progress in Modeling Classical Nova Outbursts](#), A.C. Calder, A. Alexakis, L.J. Dursi, A. Mignone, F.X. Timmes, J.W. Truran, R. Rosner, D.Q. Lamb, E.F. Brown, B. Fryxell, M. Zingale, P. Ricker, & K. Olson in AAS/High Energy Astrophysics Division, 35, 18.02, 2003
- u65. [Starting Models in FLASH for Calculations of Type Ia Supernovae](#) D.Q. Lamb, A. Caceres, A.C. Calder, L.J. Dursi, B. Fryxell, P. MacNeice, K. Olson, T. Plewa, P. Ricker, K. Riley, R. Rosner, A. Siegel, F.X. Timmes, J.W. Truran, N. Vladimirova, G. Wiers, & M. Zingale, in AAS/High Energy Astrophysics Division, 35, 18.10, 2003
- u64. [Microphysics of Astrophysical Flames](#), L.J. Dursi, M. Zingale, A. Caceres, A.C. Calder, F.X. Timmes, J.W. Truran, R. Rosner, D.Q. Lamb, E.F. Brown, P. Ricker, B. Fryxell, K. Olson, K. Riley, A. Siegel, & N. Vladimirova in AAS/High Energy Astrophysics Division, 35, 18.10, 2003
- u63. [Investigations of pointwise Ignition of Helium Deflagrations in Neutron Stars](#), M. Zingale, S.E. Woosley, A. Cumming, A. Calder, L.J. Dursi, B. Fryxell, K. Olson, P. Ricker, R. Rosner, F.X.

- Timmes, & P. MacNeice, in 3-D Stellar Evolution, eds. S. Turcotte, S. Kellar, and R. Cavallo, ASP Conference Proceedings, 293, 329, 2003
- u62. [The Complexity Complex](#), S.A. Stewart, three figures by M. Zingale et al., F.X. Timmes et al., Calder et al. University of Chicago Magazine, December 2002
- u61. [Onset of Convection on a Pre-Runaway White Dwarf](#), L.J. Dursi, A.C. Calder, A. Alexakis, J.W. Truran, M. Zingale, B. Fryxell, P. Ricker, F.X. Timmes, & K. Olson in Classical Nova Explosions, eds. M. Hernanz and J. Jose, AIP, Melville, 2002, 139
- u60. [Mixing by Non-linear Wave Breaking at the Surface of a White Dwarf](#), A.C. Calder, A. Alexakis, L.J. Dursi, R. Rosner, J.W. Truran, B. Fryxell, P. Ricker, M. Zingale, K. Olson, F.X. Timmes, & P. MacNeice in Classical Nova Explosions, eds. M. Hernanz and J. Jose, AIP, Melville, 2002, 134
- u59. [Mixing by Wave Breaking at the Surface of a White Dwarf](#), J.W. Truran, A. Alexakis, L.J. Dursi, A.C. Calder, M. Zingale, B. Fryxell, P. Ricker, F.X. Timmes, R. Rosner, & K. Olson in Proc. of the 11th Workshop on Nuclear Astrophysics (Ringberg Castle, February 11-16, 2002), MPA/P13, eds. W. Hillebrandt and E. Müller, Garching, 2002, p. 186
- u58. [A Case Study of Verifying and Validating an Astrophysical Simulation Code](#), A.C. Calder, B. Fryxell, T. Plewa, R. Rosner, L.J. Dursi, V.G. Weirs, T. Dupont, H. F. Robey, J.O. Kane, B. A. Remington, R.P. Drake, G. Dimonte, M. Zingale, A. Siegel, A. Caceres, K. Riley, N. Vladimoriva, P. Ricker, F.X. Timmes, K. Olson & H. M. Tufo, Foundations, 2002
- u57. [Physics Today Cover](#), 55, 2, February 2002
- u56. [Simulations of X-ray Bursts at the FLASH Center](#), M. Zingale, F.X. Timmes, B. Fryxell, D.Q. Lamb, K. Olson, A.C. Calder, L.J. Dursi, P. Ricker, R. Rosner, J.W. Truran & P. MacNeice, 2nd Chicago Conference on Astrophysical Thermonuclear Explosions
- u55. [Quenching Processes in Flame-Vortex Interactions](#), M. Zingale, J.C. Niemeyer, F.X. Timmes, L.J. Dursi, A.C. Calder, B. Fryxell, D.Q. Lamb, K. Olson, P.M. Ricker, R. Rosner, J.W. Truran & P. MacNeice Proceedings of the 20th Texas Symposium on Relativistic Astrophysics, J.C. Wheeler & H. Martel eds., Melville, NY: AIP press, 490, 2001
- u54. [Simulations of Astrophysical Fluid Instabilities](#), A.C. Calder, B. Fryxell, R. Rosner, L.J. Dursi, K. Olson, P.M. Ricker, F.X. Timmes, M. Zingale, P. MacNeice, & H.M. Tufo, Proceedings of the 20th Texas Symposium on Relativistic Astrophysics J.C. Wheeler & H. Martel eds., Melville, NY: AIP press, 484, 2001
- u53. [Adaptive Mesh Simulations of Astrophysical Detonation Using the ASCI Flash Code](#), B. Fryxell, A.C. Calder, L.J. Dursi, D.Q. Lamb, P. Macneice, K. Olson, R. Rosner, F.X. Timmes, J.W. Truran, H.M. Tufo, & M. Zingale, VII International Workshop on Advanced Computing and Analysis Techniques in Physics Research, Melville, NY: AIP Press, 223, 2001
- u52. [Large-Scale Simulations of Clusters of Galaxies](#), P.M. Ricker, A.C. Calder, L.J. Dursi, B. Fryxell, D.Q. Lamb, P. Macneice, K. Olson, R. Rosner, F.X. Timmes, J.W. Truran, H.M. Tufo, & M. Zingale, VII International Workshop on Advanced Computing and Analysis Techniques in Physics Research, Melville, NY: AIP Press, 316, 2001

- u51. [A Comparison of High-Resolution 3D Numerical Simulations of Turbulent Rayleigh-Taylor \(RT\) Instability: Alpha-Group Collaboration](#), Dimonte, G., Dimits, A., Weber, S., Youngs, D.L., Calder, A.C., Fryxell, B., Biello, J., Dursi, L., MacNeice, P., Olson, K., Ricker, P., Rosner, R., Timmes, F.X., Tufo, H., Young, Y.-N., Zingale, M., Andrews, M.J., Ramaprabhu, P., Wunsch, S., Garasi, C., & Robinson, A., Eighth International Workshop on the Physics of Compressible Turbulent Mixing, 2001
- u50. [Multidimensional Simulations of Type Ia Supernovae](#), A.C. Calder, P.M. Ricker, L.J. Dursi, J.W. Truran, B. Fryxell, R. Rosner, F.X. Timmes, H.M. Tufo, M. Zingale, K. Olson, & P. MacNeice American Astronomical Society, 199, 47.06, 2001
- u49. [Gas Stripping, Turbulence, and Wake Formation in Cluster Mergers](#), P.M. Ricker, C.L. Sarazin, J.C. Kempner, A.C. Calder, L.J. Dursi, B. Fryxell, D.Q. Lamb, K. Olson, R. Rosner, F.X. Timmes, J.W. Truran, H. Tufo, & M. Zingale, Bulletin of the American Physical Society, 199, 62.13, 2001
- u48. [Initiation of Convection in a Classical Nova Precursor](#), L.J. Dursi, A.C. Calder, P. Ricker, J.W. Truran, M. Zingale, B. Fryxell, K. Olson, R. Rosner, F.X. Timmes, H.M. Tufo, & P. MacNeice, Bulletin of the American Physical Society, 199, 62.13, 2001
- u47. [Code Validation with Laser Astrophysics Experiments](#), A.C. Calder, B. Fryxell, R. Rosner, L.J. Dursi, P.M. Ricker, F.X. Timmes, M. Zingale, J.O. Kane, B.A. Remington, R.P. Drake, K. Olson, P. MacNeice, & H.M. Tufo, Bulletin of the American Physical Society, 198, 64.01, 2001
- u46. [Adaptive Mesh Simulations Of Astrophysical Detonations Using the ASCI Flash Code](#), B. Fryxell, A.C. Calder, L.J. Dursi, D.Q. Lamb, P. MacNeice, K. Olson, P. Ricker, R. Rosner, F.X. Timmes, J.W. Truran, H.M. Tufo, & M. Zingale, AIP Conference Proceedings, 197, 42.15, 2001
- u45. [Characterization of Numerical Dissipation of PPM and WENO Schemes](#), V.G. Weirs, L.J. Dursi, A.C. Calder, B. Fryxell, R. Rosner, K. Olson, P.M. Ricker, F.X. Timmes, M. Zingale, P. MacNeice & H. Tufo, American Physical Society, BE.002, 2000
- u44. [Pre-nova Mixing at the Surface of White Dwarfs](#), R. Rosner, Y.N. Young, A. Alexakis, L.J. Dursi, J.W. Truran, A.C. Calder, B. Fryxell, K. Olson, P.M. Ricker, F.X. Timmes, M. Zingale, H.M. Tufo, & P. MacNeice Bulletin of the American Physical Society, 197, 81.06, 2000
- u43. [Simulating Thermonuclear Runaways in Novae](#), L.J. Dursi, J.W. Truran, M. Zingale, A.C. Calder, B. Fryxell, K. Olson, P. Ricker, R. Rosner, F.X. Timmes, H.M. Tufo, & P. MacNeice, Bulletin of the American Physical Society, 197, 81.05, 2000
- u42. [Thermonuclear Quenching in Flame-Vortex Interactions](#), M. Zingale, J.C. Niemeyer, F.X. Timmes, L.J. Dursi, A.C. Calder, B. Fryxell, K. Olson, P. Ricker, R. Rosner, J.W. Truran & P. MacNeice, Bulletin of the American Physical Society, 197, 81.04, 2000
- u41. [The Structure of Carbon Detonations in Type Ia Supernovae](#), B. Fryxell, F.X. Timmes, M. Zingale, L.J. Dursi, P. Ricker, K. Olson, A.C. Calder, H. Tufo, J.W. Truran, R. Rosner, & P. MacNeice, Bulletin of the American Physical Society, 197, 81.03, 2000
- u40. [Mixing in Rayleigh-Taylor Instabilities](#), A.C. Calder, B. Fryxell, R. Rosner, L.J. Dursi, P.M. Ricker, F.X. Timmes, M. Zingale, H.M. Tufo, & P. MacNeice, Bulletin of the American Physical Society, 197, 81.02, 2000

- u39. [The Structure of Self-Gravitating Hydrodynamic Turbulence](#), A.C. Calder, P. Ricker, L.J. Dursi, R. Rosner, A.C. Calder, B. Fryxell, K. Olson, F.X. Timmes, H. Tufo, M. Zingale, & P. MacNeice, Proceedings of the American Astronomical Society Meeting 197, 42.13, 2000
- u38. [Astrophysically Relevant Instabilities at a Decelerating Interface](#), A.C. Calder, B. Fryxell, R. Rosner, J. Kane, B.A. Remington, H. Robey, P. Keiter, R.P. Drake, J. Knauer, L.J. Dursi, K. Olson, P.M. Ricker, F.X. Timmes, M. Zingale, & P. MacNeice, American Physical Society BP1, 78, 2000
- u37. [Characterization of Numerical Dissipation of PPM and WENO Schemes](#) G.V. Weirs, L.J. Dursi, A.C. Calder, B. Fryxell, R. Rosner, K. Olson, P.M. Ricker, F.X. Timmes, M. Zingale, P. MacNeice, & H. Tufo, American Physical Society, 53, BE.002, 2000
- u36. [Flash Upon a Neutron Star](#), M. Szpir, figure by M. Zingale, F.X. Timmes, B. Fryxell & D.Q. Lamb, American Scientist 402, 88, 2000
- u35. [Helium Detonations on Neutron Stars](#), B. Fryxell, M. Zingale, F.X. Timmes, D.Q. Lamb, K. Olson, A.C. Calder, L.J. Dursi, P. Ricker, R. Rosner, J.W. Truran, P. MacNeice, & H. Tufo, Proceedings of the 10th Workshop on Nuclear Astrophysics Rinberg Castle, Tegernsee, Germany, editors: W. Hillebrandt and E. Mueller, Max Planck Institute, page 38, 2000
- u34. [2-dimensional Helium Detonations on the Surface of Neutron Stars](#), M. Zingale, F.X. Timmes, B. Fryxell, D.Q. Lamb, K. Olson, P. Ricker, A.C. Calder, L.J. Dursi, R. Rosner, & J.W. Truran, Rossi2000: Astrophysics with the Rossi X-ray Timing Explorer, 67, 2000
- u33. [Helium Detonations on Neutron Stars](#), M. Zingale, F.X. Timmes, B. Fryxell, D.Q. Lamb, K. Olson, A.C. Calder, L.J. Dursi, P. Ricker, R. Rosner, J.W. Truran, P. MacNeice, & H. Tufo, Bulletin of the American Astronomical Society, American Institute of Physics, 196, 1703 2000
- u32. [FLASH simulations of multi-layer targets](#), A.C. Calder, B. Fryxell, R. Rosner, J. Kane, B.A. Remington, L.J. Dursi, K. Olson, P.M. Ricker, F.X. Timmes, M. Zingale, . MacNeice, & H. Tufo, Bulletin of the American Astronomical Society, American Institute of Physics, 196, 2203 2000
- u31. [The Cellular Structure of Carbon Detonations](#), B. Fryxell, F.X. Timmes, M. Zingale, L.J. Dursi, P. Ricker, K. Olson, A.C. Calder, H. Tufo, H., P. MacNeice, J.W. Truran, & R. Rosner, Bulletin of the American Astronomical Society, American Institute of Physics, 196, 3902 2000
- u30. [Direct Simulations of Thermonuclear Flames with the FLASH Code](#), M. Zingale, F.X. Timmes, A. Calder, J. Dursi, B. Fryxell, D. Lamb, K. Olson, P. Ricker, R. Rosner, J. Truran, & H. Tufo, Bulletin of the American Astronomical Society, American Institute of Physics, 195, 4201 1999
- u29. [Compressed Reactive Turbulence and Supernovae Ia Recollapse using the FLASH code](#), J. Dursi, J. Niemeyer, A. Calder, B. Fryxell, D. Lamb, K. Olson, P. Ricker, R. Rosner, F.X. Timmes, H. Tufo, & M. Zingale, Bulletin of the American Astronomical Society, American Institute of Physics, 195, 4202 1999
- u28. [PARAMESH: A Parallel, Adaptive Mesh Refinement Toolkit and Performance of the FLASH code](#), K. Olson, P. Macneice, B. Fryxell, P. Ricker, F.X. Timmes, & M. Zingale, Bulletin of the American Astronomical Society, American Institute of Physics, 195, 4203 1999



- u27. [Helium Burning on Neutron Stars: 2-dimensional Results](#), B. Fryxell, M. Zingale, F.X. Timmes, K. Olson, D. Lamb, A. Calder, J. Dursi, P. Ricker, R. Rosner, & H. Tufo, Bulletin of the American Astronomical Society American Institute of Physics, 195, 4204 1999
- u26. [FLASH: A Multidimensional Hydrodynamics Code for Modeling Astrophysical Thermonuclear Flashes](#), P. Ricker, B. Fryxell, K. Olson, F.X. Timmes, M. Zingale, D. Lamb, P. Macniece, R. Rosner, & H. Tufo, Bulletin of the American Astronomical Society, American Institute of Physics, 195, 4205 1999
- u25. All In The Timing: Taking A Tape Measure To Neutron Stars, R. Cowan, figure by F.X. Timmes, M. Zingale, K. Olson, P. Ricker, B. Fryxell & R. Rosner, Science News 154, 319, 1998
- u24. Full Speed Ahead for Lab's Computers, A. Widener, figure by F.X. Timmes, M. Zingale, B. Fryxell & D. Lamb, The Valley Times 114, 360, 1998
- u23. [Galactic Gamma-Ray Line Emission From Radioactive Isotopes](#), R. Diehl & F.X. Timmes, in Proceedings of the Fourth Compton Symposium, AIP Conf. Proc. 410, ed. C. D. Dermer, M. S. Strickman, & J. D. Kurfess, American Institute of Physics, 410, 127, 1998
- u22. [Gamma-Line Emission From Radioactivities Produced In Supernovae](#), S.E. Woosley & F.X. Timmes, in The Transparent Universe: Proc 2nd INTEGRAL Workshop, eds. C. Winkler, T.J.-L. Courvoisier, European Space Agency, SP-382, 21, 1997
- u21. [The Recent Star Formation History of the Inner Galaxy](#), D.H. Hartmann, F.X. Timmes, & R.L. Diehl, in "The History of the Milky Way and Its Satellite Systems, eds. A. Burkert, D.H. Hartmann, and S.R. Majewski, Astronomical Society of the Pacific, volume 112, 197, 1996
- u20. [Nucleosynthesis in Massive Stars](#), S.E. Woosley, R.D. Hoffman, F.X. Timmes, F.-K. Thielemann & T.A. Weaver, in 8th Workshop on Nuclear Astrophysics, eds. W. Hillebrandt and E. Müller, Max Planck Institut für Astrophysik, Garching, 1, 1996
- u19. [Massive Star Nucleosynthesis and Type II Supernovae](#), J.W. Truran & F.X. Timmes, in The Interplay between massive star formation, the ISM and Galaxy Evolution, ed. D. Kunth, B. Guiderdoni, M. Heydari-Malayeri, & T.X. Thuan, Gif-sur-Yvette, Editions Frontieres, 71, 1996
- u18. [On the Interpretation of \[D/H\] in QSO Absorption Line Systems](#), D.G. York, J.W. Truran, F.X. Timmes, & J. T. Lauroesch, Bulletin of the American Astronomical Society, American Institute of Physics, 188, 23.07, 1996
- u17. [Chemical Evolution of Galaxies](#), F.X. Timmes, in Cosmic Abundances, ed. S.S. Holt & G. Sonneborn, Astronomical Society of the Pacific, volume 99, 298, 1996
- u16. William A. Fowler Memorial Observance Contribution, F.X. Timmes, in Engineering & Science ed. J. Dietrich, Caltech and the Alumni Association, LIX, 2, 42, 1996
- u15. [Stellar Production of Lithium](#), F. Matteucci, F. D'Antona & F.X. Timmes, in The Light Element Abundances, ed. Crane, P., Springer Verlag, 318, 1995

- u14. [Radioactivities Made in Supernovae](#), S.E. Woosley, F.X. Timmes, R. Hoffman, D.H. Hartmann, P.A. Pinto & T.A. Weaver, in 17th Texas Symposium on Relativistic Astrophysics and Cosmology, ed. Böhringer, H., Morfill, G. E., & Trümper, J. E., Annals of the New York Academy of Sciences, 759, 388, 1995
- u13. [Gamma-Ray Producing Radioactivities from Supernova Explosions](#), R.D. Hoffman, S.E. Woosley, T.A. Weaver, F.X. Timmes, R.G. Eastman & D.H. Hartmann, in The Gamma Ray Sky with Compton GRO and SIGMA, ed. Signore, M., Salati, P., & Vedrenne, G., Kluwer Press, 267, 1995
- u12. [Galactic Chemical Evolution: Neutrino-Process Contributions](#), F.X. Timmes, S.E. Woosley & T.A. Weaver, in Nuclei in the Cosmos III, ed. Busso, M., Gallino, R., & Raiteri C., American Institute Physics, 543, 1995
- u11. [Chemical Evolution of the Galaxy](#), J.W. Truran & F.X. Timmes, in Nuclei in the Cosmos III, ed. Busso, M., Gallino, R., & Raiteri C., American Institute Physics, 501, 1995
- u10. [Bicycling From Santa Cruz To Aspen](#), F.X. Timmes, BikeCentennial, November, 1993
- u9. [Massive Star Evolution and Galactic Chemical Evolution](#), F.X. Timmes, S.E. Woosley & T.A. Weaver, in Proceedings of the VI Advanced School of Astrophysics in São Paulo, Brazil, ed. B. Barbuy, J.A. de Freitas Pacheco & E. Janot-Pacheco, IAGUSP, 148, 1993
- u8. [Galactic chemical evolution and  \$^{26}\text{Al}\$  production by supernovae](#), F.X. Timmes, S.E. Woosley & T.A. Weaver, in Second Compton Observatory Science GRO Workshop, ed. M. Friedlander, N. Gehrels, & D. Macomb, American Institute of Physics, 64, 1993
- u7. [Galactic Chemical Evolution: The Intermediate Mass Elements](#), S.E. Woosley, F.X. Timmes & T.A. Weaver, in Nuclei in the Cosmos II, ed. Käppeler, F. & Wisshak, K., American Institute of Physics, 531, 1993
- u6. [Galactic Chemical Evolution: The Intermediate Mass Elements](#), F.X. Timmes, S.E. Woosley & T.A. Weaver, in Bulletin of the American Astronomical Society, American Institute of Physics, 24, 1273 1992
- u5. [Accretion Induced Collapse](#), S.E. Woosley, F.X. Timmes & E. Baron, in X-Ray Binaries and Recycled Pulsars, ed. E. P. J. Van den Heuvel & S. A. Rappaport, Kluwer Press, 167, 1992
- u4. [The Propagation of Conductive Nuclear Flames in Degenerate Matter](#), F.X. Timmes & S.E. Woosley, Bulletin of the American Astronomical Society, American Institute of Physics, 23, 975, 1991
- u3. [On Supernova Rates, Oxygen and Iron Abundances](#), F.X. Timmes, in Supernovae: Tenth Santa Cruz Summer Workshop, ed. S.E. Woosley, Springer-Verlag, 619, 1991
- u2. [SPICE 2 and Power MOSFET's](#), F.X. Timmes, Siliconix Interface, 2, 33, 1986
- u1. [Circuit Simulation of Power MOSFET's](#), F.X. Timmes, D. Dodt & N. Maluf, IEEE AIS, 58, 1985