

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
 Web: 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, revolving around radioactive isotopes.
 Software Instruments, High Performance Computing, and next-generation Internet.

Education

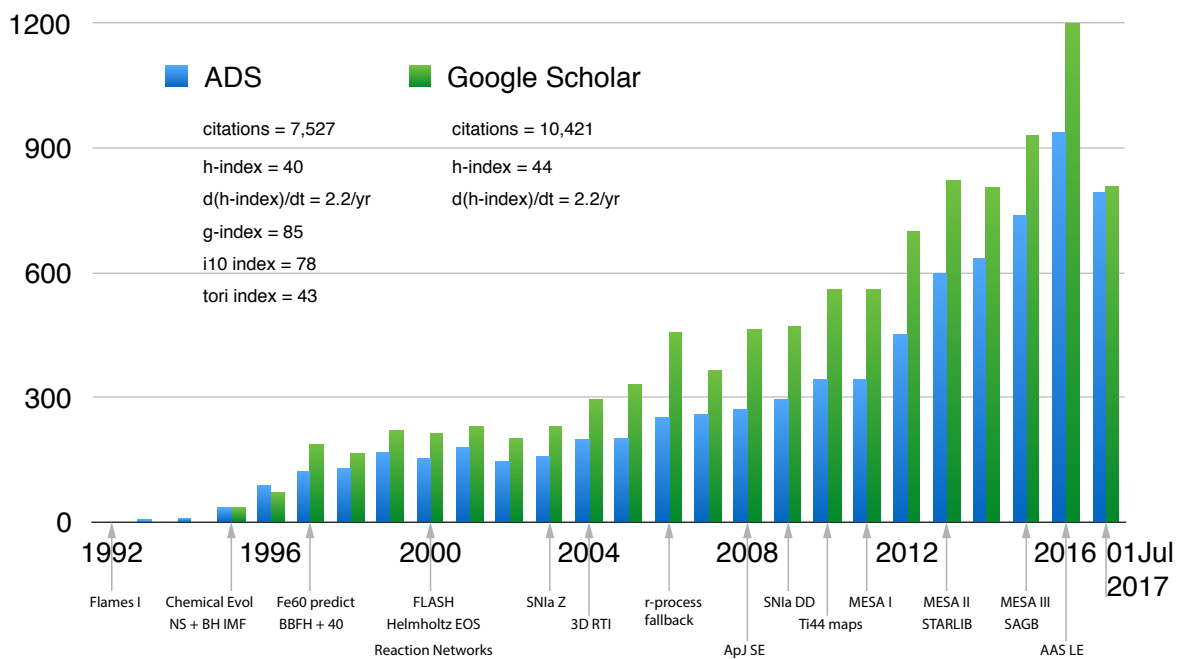
1988 – 1992 UC Santa Cruz M.S. & Ph.D. in Astronomy & Astrophysics
 1981 – 1984 UC Santa Barbara B.S. in Physics, with Honors

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

- 265 publications, 106 refereed + 2 in press + 1 under review + 2 in preparation.
- Citations: [7,527 ADS](#), [10,421 Google Scholar](#); h -index: 40 ADS, 44 Google Scholar.
- Papers with 1000+ citations: 2; with 500+ citations: 4; with 200+ citations: 12; with 100+ citations: 19.
- [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 [15 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 Award Nomination Drives

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, Nuclear Physics Division; 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, ~30,000 students/yr
- 2011 – Director & Lecturer, [MESA Summer School](#), UC Santa Barbara
- 2004 – [cococubed.asu.edu](#), ~20,000 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 (27); Astronomy Laboratory (27); Introductory Astronomy (16); Energy in Everyday Life (7); 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 Norm Perrill Origins Project Scholarship, ASU CLAS Undergraduate Summer Enrichment Award, ASU
	2014	Gold Medal, Sigma Xi Student Research Conference Award CLAS Undergraduate Summer Enrichment Award, ASU Asian & Pacific Islander American / Wells Fargo Scholarship, ASU
Milissa Smith	2011	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

111. On the transition between convective and radiative carbon burning in massive stars, I. Petermann, F.X. Timmes, C.E. Fields, R. Farmer, *Astrophysical Journal*, In Preparation
110. 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*, In Preparation
109. 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*, Submitted
108. 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*, In Press
107. The Neutron Capture Process in the He Shell in Core-Collapse Supernovae. Presolar Silicon Carbide Grains: a diagnostic for nuclear astrophysics, Marco Pignatari, Peter Hoppe, Reto Trappitsch, Chris Fryer, F.X. Timmes, Falk Herwig, and Raphael Hirschi, *Geochimica and Cosmochimica Acta*, In Press
106. [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
105. [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, 217
104. [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
103. [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
102. [Bayesian Estimation Of Thermonuclear Reaction Rates](#), C. Iliadis, K.A. Anderson, A. Coc, S. Starrfield, & F.X. Timmes, *Astrophysical Journal*, 831, 107, 2016
101. [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

100. [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
99. [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
98. [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
97. [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
96. [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
95. [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
94. [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. Pignatati, 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
93. [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
92. [On Carbon Burning in Super Asymptotic Giant Branch Stars](#), R. Farmer, C.E. Fields, and F.X. Timmes, *Astrophysical Journal*, 807, 184, 2015
91. [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
90. [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
89. [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
88. [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

87. [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
86. [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
85. [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
84. [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
83. [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
82. [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
81. [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
80. [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
79. [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
78. [Zero Impact Parameter White Dwarf Collisions in FLASH](#), W.P. Hawley, T. Athanassiadou, and F.X. Timmes, *Astrophysical Journal*, 759, 39, 2012
77. [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
76. [Mixing of Clumpy Supernova Ejecta into Molecular Clouds](#), L. Pan, S. Desch, E. Scannapieco, and F.X. Timmes, *Astrophysical Journal*, 756, 102, 2012
75. [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

74. [Remnants of Binary White Dwarf Mergers](#), C. Raskin, E. Scannapieco, G. Rockefeller, C.L. Fryer, and F.X. Timmes, *Astrophysical Journal*, 746, 62, 2012
73. [Freeze-out Yields of Radioactivities in Core-collapse Supernovae](#) G. Magkotsios, F.X. Timmes, and M. Wiescher, *Astrophysical Journal*, 741 78, 2011
72. [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
71. [\$^{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
70. [\$^{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
69. [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
68. [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
67. [Spectra of Type Ia Supernovae from Double Degenerate Mergers](#), C.L. Fryer and 16 others including F.X. Timmes, *Astrophysical Journal*, 725 296, 2010
66. [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
65. [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
64. [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
63. [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
62. [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
61. [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
60. [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

59. [r-Process from Supernova Fallback](#) Christopher L. Fryer, Aimee Hungerford, Falk Herwig, and F.X. Timmes, *Astrophysical Journal*, 626, L141, 2006
58. [Hydrodynamic simulations of He-shell flash convection](#), F. Herwig, B. Freytag, R. M. Hueckstaedt and F.X. Timmes, *Astrophysical Journal*, 642, 1057, 2006
57. [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
56. [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
55. [Changing the r-Process Paradigm](#), C.L. Fryer, A. Hungerford, F.X. Timmes *Nuclear Physics A*, 758, 599, 2005
54. [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
53. [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
52. [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
51. [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
50. [Morphology of Rising Hydrodynamic and Magneto-hydrodynamic Bubbles from Numerical Simulations](#), K. Robinson, L.J. Dusri, 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
49. [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
48. [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

47. [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
46. [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
45. [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
44. [On Variations in the Peak Luminosity of Type Ia Supernovae](#), F.X. Timmes, Edward F. Brown, J.W. Truran, *Astrophysical Journal*, 590, L83, 2003
43. [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
42. [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
41. [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
40. [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
39. [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
38. [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
37. [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
36. [An Inexpensive Nuclear Energy Generation Network For Stellar Hydrodynamics](#), F.X. Timmes, R.D. Hoffman, & S.E. Woosley, *Astrophysical Journal Supplement*, 129, 377, 2000

35. [Regimes of Helium Burning](#), F.X. Timmes & J. C. Niemeyer, *Astrophysical Journal*, 537, 993, 2000
34. [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
33. [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
32. [Physical Properties of Laminar Helium Deflagrations](#), F.X. Timmes, *Astrophysical Journal*, 528, 913, 2000
31. [The Accuracy, Consistency, and Speed of Five Equations of State For Stellar Hydrodynamics](#), F.X. Timmes & D. Arnett, *Astrophysical Journal Supplement*, 125, 277, 1999
30. [Integration of Nuclear Reaction Networks For Stellar Hydrodynamics](#), F.X. Timmes, *Astrophysical Journal Supplement*, 124, 241, 1999
29. [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
28. [Gamma-Ray Line Signals From Supernovae Within 100 Mpc](#), F.X. Timmes & S.E. Woosley, *Astrophysical Journal*, 489, 160, 1997
27. [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
26. [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
25. [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
24. [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
23. [Cosmic Chemical Evolution](#), J.W. Truran & F.X. Timmes, *Nuclear Physics A*, 621, 548, 1997
22. [Placing the Sun in Galactic Chemical Evolution: Mainstream SiC Particles](#), D. D. Clayton & F.X. Timmes, *Astrophysical Journal*, 483, 220, 1997
21. [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

20. [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
19. [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
18. [Galactic Evolution of Silicon Isotopes: Application to Presolar SiC Grains From Meteorites](#), F.X. Timmes & D. D. Clayton, *Astrophysical Journal*, 472, 723, 1996
17. [Making Black Holes in Supernovae](#), S.E. Woosley & F.X. Timmes, *Nuclear Physics A*, 606, 137, 1996
16. [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
15. [The Neutron Star and Black Hole Initial Mass Function](#), F.X. Timmes, S.E. Woosley, & T.A. Weaver, *Astrophysical Journal*, 457, 834, 1996
14. [News \(vs\) on the Galactic evolution of Lithium](#) F. Matteucci, F. D'Antona & F.X. Timmes, *Astronomy & Astrophysics*, 303, 460, 1995
13. [Abundance Histories for QSO Absorption Line Systems](#) F.X. Timmes, J. Lauroesch, & J.W. Truran, *Astrophysical Journal*, 451, 468, 1995
12. [\$^{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
11. [The Road To Iron Leads Through \$^{56}\text{Ni}\$](#) , J.W. Truran & F.X. Timmes, *Physics Reports*, 256, 193, 1995
10. [Galactic Chemical Evolution: Hydrogen through Zinc](#), F.X. Timmes, S.E. Woosley, & T.A. Weaver, *Astrophysical Journal Supplement*, 98, 617, 1995
9. [Optically Thick Winds: What Determines The Mass Flux?](#), A. Glasner & F.X. Timmes, *Astrophysical Journal*, 445, 411, 1995
8. [On The Acceleration Of Nuclear Flame Fronts in White Dwarfs](#), F.X. Timmes, *Astrophysical Journal*, 426, L107, 1994
7. [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
6. [Reactive Flows in Compact Objects](#), F.X. Timmes, Ph.D. Thesis, June, 1993
5. [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
4. [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

3. [On the Thermal Conductivity Due To Collisions Between Relativistic & Degenerate Electrons](#), F.X. Timmes, *Astrophysical Journal*, 390, L107, 1992
2. *Advanced Technology Devices and Circuit Optimization*, A. K. Doganis & F.X. Timmes, *Computers and Integrated Systems*, 1987
1. *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

159. [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
158. [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
157. [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
156. [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
155. [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
154. [White Paper on Nuclear Astrophysics](#), A. Arcones and 32 others including F.X. Timmes, community white paper based on 2012 JINA Town Meeting in Detroit, MI, and 2014 APS Town Meeting in College Station, TX, March 2016
153. [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
152. [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
151. [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
150. [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
149. [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
148. [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
147. [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

146. [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
145. [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
144. [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
143. [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
142. 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
141. Non-Zero Impact Parameter White Dwarf Collisions in FLASH. Hawley, Wendy; Timmes, F. X. American Astronomical Society, AAS Meeting 221, 253.27, 2013
140. [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
139. [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
138. [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
137. [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
136. [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
135. [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

134. [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
133. [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
132. [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
131. [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
130. [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
129. [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
128. [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
127. [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
126. [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
125. [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
124. [Mixing of Supernova Ejecta into Molecular Clouds](#), L. Pan, S. Desch, E. Scannapieco, 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
123. [Constructing an Updated Catalog of Nearby Habitable Stellar Systems with Elemental Ratios](#), N. Tr’ehnl, 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
122. [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
 121. [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
 120. [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
 119. [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
 118. [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
 117. [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
 116. [Supernova Bullets Impinging Upon Molecular Clouds](#), B. Perret & F.X. Timmes 40th Lunar and Planetary Science Conference, 2009
 115. [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
 114. [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
 113. [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
 112. [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

111. [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
110. [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
109. [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
108. [\$^{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
107. [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
106. [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
105. [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
104. [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
103. [Theory and Numerics: New Results on Convection in Stars](#) D. Arnett, C. Meakin, S. Starrfield, F.X. Timmes, and P. Young in IXth Torino Workshop on Evolution and Nucleosynthesis in AGB Stars and the IInd Perugia Workshop on Nuclear Astrophysics, AIP Conference Proceedings, Volume 1001, pp. 287-294 (2008).
102. [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

101. [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
100. [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
99. [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
98. [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
97. [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
96. [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
95. [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
94. 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
93. Calculation Verification for Eulerian Hydrocodes, T. Tippetts, F.X. Timmes, J.R. Kamm, J.Brock, Los Alamos National Laboratory, 2006, LA-UR-06-7431
92. Certification for Code Project A, F.X. Timmes, Los Alamos National Laboratory, 2006, LA-UR-06-7632
91. 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
90. [Accelerated Strategic Computing Newsletter](#), F.X. Timmes, Los Alamos National Laboratory, 2006, LA-UR-06-7270
89. 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

88. [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
87. [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
86. 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
85. [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
84. 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
83. [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.
82. [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
81. [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
80. [Analytical Solutions Codes](#), F.X. Timmes, Los Alamos National Laboratory, 2005, LA-CC-05-101
79. [Tools and toys in nuclear astrophysics: nuclear reaction network techniques](#), F.X. Timmes, Notre Dame Summer School, 2005, LA-UR-05-5029
78. The Theoretical Astrophysics Group, F.X. Timmes, T-Division Review Committee, 2005, LA-UR-05-3045
77. [Hot Spot Ignition in White Dwarfs - One Zone Ignition Times](#), L.J. Dursi, F.X. Timmes, 22nd Texas Symposium on Relativistic Astrophysics, 2005
76. On the Tri-Lab Verification Test Suite problems, F.X. Timmes, Los Alamos National Laboratory, LA-UR-05-6781, 2005
75. Progress report on three more Tri-Lab Verification Test Suite problems, F.X. Timmes, Los Alamos National Laboratory, LA-UR-05-3289, 2005

74. Progress report on three of the Tri-Lab verification test suite problems, F.X. Timmes, Los Alamos National Laboratory, LA-UR-05-2689, 2005
73. [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
72. [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
71. [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.
70. [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.
69. [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
68. [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
67. [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
66. [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
65. [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
64. [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
63. [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
62. [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
 61. [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
 60. [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
 59. [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
 58. [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
 57. [Physics Today Cover](#), 55, 2, February 2002
 56. [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
 55. [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
 54. [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
 53. [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
 52. [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

51. [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
50. [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
49. [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
48. [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
47. [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
46. [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
45. [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
44. [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
43. [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
42. [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
41. [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
40. [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

39. [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
38. [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
37. [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
36. [Flash Upon a Neutron Star](#), M. Szpir, figure by M. Zingale, F.X. Timmes, B. Fryxell & D.Q. Lamb, American Scientist 402, 88, 2000
35. [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
34. [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
33. [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
32. [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
31. [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
30. [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
29. [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
28. [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

27. [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
26. [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
25. 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
24. 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
23. [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
22. [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
21. [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
20. [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
19. [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
18. [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
17. [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
16. William A. Fowler Memorial Observance Contribution, F.X. Timmes, in *Engineering & Science* ed. J. Dietrich, *Caltech and the Alumni Association*, LIX, 2, 42, 1996
15. [Stellar Production of Lithium](#), F. Matteucci, F. D'Antona & F.X. Timmes, in *The Light Element Abundances*, ed. Crane, P., *Springer Verlag*, 318, 1995

14. [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
13. [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
12. [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
11. [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
10. [Bicycling From Santa Cruz To Aspen](#), F.X. Timmes, BikeCentennial, November, 1993
9. [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
8. [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
7. [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
6. [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
5. [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
4. [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
3. [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
2. [SPICE 2 and Power MOSFET's](#), F.X. Timmes, Siliconix Interface, 2, 33, 1986
1. [Circuit Simulation of Power MOSFET's](#), F.X. Timmes, D. Dodt & N. Maluf, IEEE AIS, 58, 1985