

**BIBLIOGRAPHY**  
**CARLOS FERNANDEZ-PELLO**

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**A. Archival Journals**

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## **B. Conference and Symposium Proceedings**

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33. A.C. Fernandez-Pello, H.K. Hasegawa, and K. Staggs, "A Procedure for Ranking Fire Performance of Electrical Cables," First International Meeting of Fire Research and Test Centers, ITSEMAP, Madrid, 1986.
34. A.C. Fernandez-Pello, H.S. Lee, and A.K. Oppenheim, "Stagnation Point Evaporation of a Liquid Fuel at Near and Super-Critical Conditions," 1986 ASME Winter Annual Meeting, Anaheim, CA, 1986.

35. S. Dosanjh, J. Peterson, A.C. Fernandez-Pello, and P.J. Pagni, "Buoyancy Effects on Smoldering Combustion," XXXVIth International Astronautical Congress, Stockholm, Sweden, 1986.
36. H.S. Lee, A.C. Fernandez-Pello, G. Corcos, and A.K. Oppenheim, "A Mixing and Deformation Mechanism for a Supercritical Fuel Droplet," 1987 Meeting, Italian/French Section of the Combustion Institute, Amalfi, Italy, June 1987.
37. H.S. Lee, A.C. Fernandez-Pello, G. Corcos, and A.K. Oppenheim "A Mixing and Deformation Mechanism for a Supercritical Fuel Droplet," 11th ICDERS, Warsaw, Poland, August 1987 (with H.S. Lee, G. Corcos and A.K. Oppenheim).
38. O. K. Amos and A.C. Fernandez-Pello, "An Analysis of the Ignition by Vapor Absorption of Radiation of a Vaporizing Fuel at Zero-Gravity," 11th ICDERS, Warsaw, Poland, August 1987.
39. C. Dunskey and A.C. Fernandez-Pello, "Some Experimental Observations of the Stability of Premixed Cellular Flames Under Microgravity Conditions," 1988 Spring Meeting, Western States Section/The Combustion Institute, 1988.
40. J.L. Newhall, A.C. Fernandez-Pello and P.J. Pagni, "Experimental Observations of the Effect of Buoyancy on Co-Current Smoldering," 1988 Spring Meeting, Western States Section/The Combustion Institute, 1988.
41. C. Dunskey and A.C. Fernandez-Pello, "The Effect of Ambient Pressure on the Cellular Flame Structure," 1988 Fall Meeting, Western States Section/The Combustion Institute, 1988.
42. A.C. Fernandez-Pello, "Turbulent Flame Spread," 1988 NIST Annual Fire Conference, Gaithersburg, MD, October 1988.
- 43.
44. L. Zhou, A.C. Fernandez-Pello, and R. Cheng, "Experimental Observations of the Effect of Flow Turbulence on the Spread and Extinction of Flames on Thin Fuels," 1988 Technical Meeting, Eastern States Section/The Combustion Institute, 1988.
45. A.C. Fernandez-Pello, "Smoldering Combustion," International Microgravity Combustion Workshop, NASA Lewis, Cleveland, OH, January 1989.
46. A.C. Fernandez-Pello, "Concurrent Turbulent Flame Spread," 11th Panel Meeting of the UJNR Panel on Fire Research and Safety, October 1989.
47. E.R. Cantwell and A.C. Fernandez-Pello, "Smoldering Combustion under Low Gravity," 28th Aerospace Science Meeting, January 8-11, 1990, Reno, NV, Paper AIAA-90-0648, 1990.

48. A.C. Fernandez-Pello, "Cellular Premixed Flames in Micro-Gravity," Tsukuba International Workshop on Combustion, Tsukuba, Japan, March 21-24, 1990.
49. L. Zhou and A.C. Fernandez-Pello, "Turbulent Flow Burning of a Flat Fuel Surface," 1990 Spring Joint Meeting, Western States Section and Canadian Section of the Combustion Institute, Canada, 1990.
50. J. Torero, A.C. Fernandez-Pello, and M. Kitano, "Gravitational Effects on Co-Current Smoldering," 1990 Spring Joint Meeting, Western States Section and Canadian Section of the Combustion Institute, Canada, 1990.
51. A.C. Fernandez-Pello, "Window Glass Breaking Under Radiant Heat Flux from a Fire," ASTM Research Review, ASTM Spring Meeting, San Francisco, CA, May 1990.
52. J.L. Torero, A.C. Fernandez-Pello, and M. Kitano, "Mixed Flow Smoldering of Polyurethane Foam," 1990 Fall Meeting, Western States Section/The Combustion Institute, paper 90-41.
53. E.R. Cantwell and A.C. Fernandez-Pello, "Smoldering Combustion Under Low Gravity Conditions," 1990 Fall Meeting, Western States Section/The Combustion Institute, paper 90-42.
54. L. Zhou and A.C. Fernandez-Pello, "Ceiling Flame Spread and Mass Burning in Turbulent Flow," 1991 Spring Meeting, Western States Section/The Combustion Institute, paper 91-26.
55. J.L. Torero, A.C. Fernandez-Pello, and M. Kitano, "Forward Smoldering of Polyurethane Foam," 1991 Spring Meeting, Western States Section/The Combustion Institute, paper 91-27.
56. A.C. Fernandez-Pello, "Pool and Wall Fire: Some Fundamental Aspects," Lead-off paper ASME/JSME Thermal Engineering Joint Conference, Reno, NV 1991.
57. L. Zhou and A.C. Fernandez-Pello, "Solid Fuel Combustion in a Forced, Turbulent, Flat Plate Flow: The Effect of Buoyancy," 1992 Spring Meeting, Western States Section/The Combustion Institute, 1992.
58. L. Zhou and A.C. Fernandez-Pello, "Solid Fuel Combustion in a Forced, Turbulent, Flat Plate Flow," Sixth International Symposium on Applications of Laser Techniques to Fluid Mechanics, Portugal, July 1992.
59. A.C. Fernandez-Pello, "Smoldering Combustion in Microgravity," Proceedings of the Second International Microgravity Combustion Workshop, Cleveland, OH, Sep. 1992, p. 179.
60. A.C. Fernandez-Pello, "Turbulent, Concurrent, Ceiling and Floor Flame Spread: The Effect of Buoyancy and Oxygen Concentration," NIST, Annual Conference on Fire Research, Rockville, MD, Oct. 13-15, 1992.

61. N.J. Alvares, A.C. Fernandez-Pello, H. Hasegawa, K. Hout and J. White, "Analysis of a Run Away High Rack Storage Fire," NFPA Fall Meeting, Dallas, TX, November 1992.
62. L. Bonneau, P. Joulain, J.M. Most, and A.C. Fernandez-Pello, "Flat Plate Diffusion Flame Combustion in Microgravity," 31st Aerospace Science Meeting, January 1993, Reno, NV, paper AIAA-93-0826.
63. J. Torero, A.C. Fernandez-Pello and D. Urban, "Experimental Observations of the Effect of Gravity Changes on Smoldering Combustion," 31st Aerospace Science Meeting, January 1993, Reno, NV, paper AIAA-93-0829.
64. A.C. Fernandez-Pello, "Turbulent Concurrent Flame Spread: Effect of Oxygen Concentration," 1993 Spring Meeting, Western States Section/The Combustion Institute, 1993.
65. A.C. Fernandez-Pello, "Effect of Flow Parameters on CO and Soot Production in Flame Spread," Second Workshop on Developing a Predictive Capability for CO Formation in Fires, New Orleans, LA, March 1993.
66. S.D. Tse, C.G. Sanchez, and A.C. Fernandez-Pello, "Smoldering in the Presence of a Gas/Solid Interface and its Transition to Flaming," 1993 Fall Meeting, Western States Section/The Combustion Institute, October 1993.
67. A.C. Fernandez-Pello, "Smoldering Combustion in Microgravity: From Ground Based to Space Shuttle Experiments," Proceedings of the International Symposium on Aerospace and Fluid Sciences, Sendai, Japan, November 1993, pp. 243-273.
68. Y.H. Chao and A.C. Fernandez-Pello, "Solid Fuel Ignition in a Turbulent Boundary Layer," 1994 Spring Meeting, Western States Section/The Combustion Institute, March 1994.
69. A.C. Fernandez-Pello, "Smoldering Combustion in Microgravity: From Ground to Space Based Experiments," COSPAR '94 Conference, G1-Symposium on Microgravity Sciences: Results and Analysis of Recent Space Flights, July 1994, Hamburg, Germany.
70. S.D. Tse, C.G. Sanchez, A.C. Fernandez-Pello, and O. Fujita, "Smoldering in the Presence of a Gas/Solid Interface and its Transition to Flaming," Poster presentation, Twenty-Fifth International Symposium on Combustion, Irvine, CA, Aug. 1994.
71. Y.H. Chao, A.C. Fernandez-Pello, and O. Fujita, "Concurrent Flame Spread: The Combined Effect of Flow Velocity, Turbulence and Oxygen Concentration, Poster presentation, Twenty-Fifth International Symposium on Combustion, Irvine, CA, Aug. 1994.
72. J. Chen, J.M. Most, P. Joulain, D. Durox, and A.C. Fernandez-Pello, "Influence of Gravity and Pressure on Pool Fire Type Diffusion Flames," Poster presentation, Twenty-Fifth International Symposium on Combustion, Irvine, CA, Aug. 1994.



74. A.C. Fernandez-Pello, "Microgravity Smoldering Combustion on the USML-1 Space Shuttle Mission," Third International Microgravity Combustion Workshop, NASA Lewis Research Center, Cleveland, OH, April 1995.
75. M. August, J.L. Cordova, and A.C. Fernandez-Pello, "Ignition Delay of a Solid Fuel in a High Temperature Oxidizer Boundary Layer Flow," 15th International Colloquium on the Dynamics of Explosions and Reacting Systems, Boulder, CO., August 1995.
76. R. Anthenien, D. Walther, and A.C. Fernandez-Pello, "An Experimental Study of Smolder Ignition of Polyurethane Foam," Paper No. 95F-175, 1995 Fall Meeting, Western States Section/ The Combustion Institute, Stanford University, Stanford, Ca, October 30-31, 1995.
77. Y.H. Chao and A.C. Fernandez-Pello, "Concurrent Flame Spread: The Combined Effect of Flow Velocity, Turbulence and Oxygen Concentration," 3rd Asian-Pacific International Symposium on Combustion and Energy Utilization, Hong Kong Polytechnic, Hong Kong, 11-15 Dec., 1995.
78. D. Walther, A.C. Fernandez-Pello, and D. Urban, "Smoldering Combustion Experiments in Microgravity," Poster presentation, *Twenty-Sixth Symposium (International) on Combustion*, The Combustion Institute, Naples, Italy, August 3 1996.
79. J.L. Cordova, J. Ceamanos, A.C. Fernandez-Pello, R.T. Long, J.L. Torero, and J.G. Quintiere, "Flow Effects on the Flammability Diagrams of Solid Fuels," Proceedings of the Fourth International Microgravity Combustion Workshop, Cleveland, OH, NASA Pub. 10194, 405-410, 1997 .
80. D. Walther, A.C. Fernandez-Pello, "Smoldering Combustion Experiments in Microgravity," Proceedings of the Fourth International Microgravity Combustion Workshop, Cleveland, OH, NASA Pub. 10194, 369-374, 1997.
81. S.D.Tse, R.A. Anthenien, A.C. Fernandez-Pello, and K. Miyasaka "A Novel Application of Ultrasonic Imaging to Study Smoldering Combustion," Proceedings of the Fourth International Microgravity Combustion Workshop, Cleveland, OH, NASA Pub. 10194, 441-446, 1997.
82. A.C. Fernandez-Pello, "Microgravity Smoldering Combustion (MSC)" Science Requirements Document for Re-flight Series, NASA Lewis R. C., Cleveland, OH, March, 1997
83. A.C. Fernandez-Pello, "Piloted Ignition of a Solid Combustible Material under a Thermal Radiant Flux: The Effect of the Oxidizer Flow Velocity" ASTM Winter Technical Meeting, San Diego, CA, Dec.8, 1998.

84. D.C. Walther, A.C. Fernandez-Pello, and D.L. Urban, "Smoldering Combustion Experiments in Microgravity" 12th Annual Microgravity Science and Space Processing Symposium, 36th AIAA Aerospace Sciences Meeting, Reno, NE, January 10, 1998.
85. D. Walther and A.C. Fernandez-Pello, "The Effect of Oxygen Concentration on Ignition and Propagation of Opposed Flow Smolder of Polyurethane Foam" 1998 Spring Technical Meeting, Western States Section/Combustion Institute, Berkeley, CA, March 24, 1998.
86. D. Walther, A.C. Fernandez-Pello, and D. Urban, "Diffusion Controlled Microgravity Smolder Combustion Experiments" First Pan-Pacific Basin Workshop on Microgravity Sciences, Tokyo, Japan, July 8, 1998.
87. A.C. Fernandez-Pello, "Test Method for Ranking the Fire Properties of Materials in Reduced Gravity" Proceedings International Workshop on Experiments in Microgravity, Drop Tower Days 1998 in Hokkaido. Sapporo, Japan, October 11-14, 1998, pp. 61-63
88. J.L. Cordova and A.C. Fernandez-Pello, "Numerical Model of the Pyrolysis of a Solid Fuel under an External Radiant Flux" Zacatecas, Mexico, November 20, 1998.
89. S. Walther and A.C. Fernandez-Pello, "Ultrasound Imaging Implementation and Ignition Protocol for the Microgravity Smoldering Combustion (MSC) Experiment" 13th Annual Microgravity Science and Space Processing Symposium, Reno NV. January 14-15 1999.
90. R. Anthenien, A.C. Fernandez-Pello, D. Urban and D. Walther, "Flow Effects on the Flammability Diagrams of Solid Fuels: Microgravity Influence on Ignition Delay" Proceedings of the Fifth International Microgravity Combustion Workshop" NASA/CP-1999-208917, 35-38, 1999.
91. J.L. Cordova, A.C. Fernandez-Pello, J. Quintiere, H. Ross, J.L. Torero, and D. Walther, "Observations from the Microgravity Smoldering Combustion (MSC) Ultrasound Imaging System (UIS) Proceedings of the Fifth International Microgravity Combustion Workshop" NASA/CP-1999-208917, 193-197, 1999.
92. S. Olenick, M. Roslon, A.C. Fernandez-Pello, H. Ross, J. Torero, and D. Walther, "Flow Effects on the Microgravity Piloted Ignition Delay of Solid Fuels" International Seminar on Microgravity Combustion, Institute of Fluid Science, Tohoku University, Sendai, Japan, August, 1999.
93. Y.Y. Zhou and A.C. Fernandez-Pello, "Numerical Analysis of the Endothermic Pyrolysis and Ignition Delay of Composite Materials Exposed to an External Radiant Flux" Institute of Mathematics and its Applications, IMA Workshop on Fire, Minneapolis, MN, October 11, 1999.

94. B.A. Cooley, D. Walther, and A.C. Fernandez-Pello, "Exploring the Limits of Microscale Combustion" 1999 Fall Technical Meeting, Western States Section/Combustion Institute, Irvine, CA, October 25, 26, 1999.
95. K. Fu, D. Walther, D. Liepmann, A.C. Fernandez-Pello, and K. Miyasaka, "Preliminary Investigation of a Small-scale Rotary Internal Combustion Engine" 1999 Fall Technical Meeting, Western States Section/Combustion Institute, Irvine, CA, October 25, 26, 1999.
96. Y.Y. Zhou and A.C. Fernandez-Pello, "Numerical Modeling of Endothermic Pyrolysis and Ignition Delay of Composite Materials Exposed to an External Radiant Flux" 1999 Fall Technical Meeting, Western States Section/Combustion Institute, Irvine, CA, October 25, 26, 1999.
97. M. Roslon, S. Olenick, D. Walther, A.C. Fernandez-Pello, J. Torero, and H.D. Ross, "Microgravity Ignition Delay of Solid Fuels in Low Velocity Flows" 2000 Spring Technical Meeting, Western States Section/Combustion Institute, Golden, Colorado, March 13,14, 2000.
98. A. Bar-Ilan, D.C. Walther, and A.C. Fernandez-Pello, "The Effects of Pressure on Opposed Flow Smoldering Combustion" 2nd Joint Meeting of the U.S. Sections of the Combustion Institute, Oakland, CA, March 26-29, 2001.
99. Y.Y. Zhou, D.C. Walther, and A.C. Fernandez-Pello, "Numerical Analysis of Piloted Ignition of Polymeric Materials" 2nd Joint Meeting of the U.S. Sections of the Combustion Institute, Oakland, CA, March 26-29, 2001.
100. A. Bar-Ilan, T.L. Lo, D.C. Walther, A.C. Fernandez-Pello, and D. Urban, "Smoldering, Transition and Flaming in Microgravity" Proceedings of the Sixth International Microgravity Combustion Workshop" NASA/CP-2001-210826, pp. 21-24, 2001.
101. J.L. Torero, Y.Y. Zhou, D.C. Walther, A.C. Fernandez-Pello, and H. Ross, "Theoretical Prediction of Microgravity Ignition Delay of Polymeric Fuels in Low Velocity Flows" Proceedings of the Sixth International Microgravity Combustion Workshop" NASA/CP-2001-210826, pp. 85-88, 2001.
102. M. Frenklach and A.C. Fernandez-Pello, "Microgravity Production of Nanoparticles of Novel Materials using Plasma Synthesis" Proceedings of the Sixth International Microgravity Combustion Workshop NASA/CP-2001-210826, 77-79, 2001.
103. A. Bar-Ilan, R.A. Anthenien, D.C. Walther, A.C. Fernandez-Pello, and D. Urban, "Microgravity Smoldering Combustion Experiments in the Space Shuttle" Proceedings 2001 Technical Meeting, ESS/CI, Hilton Head, NC, December 1-5, 2001, pp. 73-76, 2001.

104. D.C. Walther and A.C. Fernandez-Pello, "Microscale Combustion: Issues and Opportunities" 2001 Technical Meeting, ESS/CI, Hilton Head, NC, December 1-5, 2001, pp. 33-40, 2001.
105. A. Bar-Ilan, D.B. Rich, G. Rein, A.C. Fernandez-Pello, H. Hanai, and T. Niioka, "Flow-Assisted Flame Propagation Through a Porous Combustible in Microgravity" 2002 Spring Technical Meeting, Western States Section/Combustion Institute, San Diego, CA, March 25, 26, 2002.
106. A. Bar-Ilan, G. Rein, A.C. Fernandez-Pello, D. Urban, and J.L. Torero, "Forced Forward Smoldering Experiments Aboard the Space Shuttle" Proceedings of the Seventh International Microgravity Combustion Workshop" NASA, pp. 129-132, 2003.
107. D. Rich, C. Lautenberger, A. Stevanovic, S. Mehta, A.C. Fernandez-Pello, J. Torero, and H. Ross, "Piloted Ignition of Polypropylene/Glass Composites in a Forced Air Flow" Proceedings of the Seventh International Microgravity Combustion Workshop" NASA, pp. 209-212, 2003.
108. A.P. Pisano, K. Fu, D. Walther, A. Knobloch, F. Martinez, and A.C. Fernandez-Pello, "MEMS Rotary Engine Power System" Special Issue on Power MEMS of The Sensors and Micromachines Associated Society of the Institute of Electrical Engineers of Japan (T. IEE-J), Vol. 122-B, No. 11, 2002.
109. G. Rein, A. Bar-Ilan, A.C. Fernandez-Pello, and J.L. Ellzey, "Numerical Modeling of One-Dimensional Forward Smoldering in Microgravity" 2003 Fall Technical Meeting, Western States Section/Combustion Institute, Los Angeles, CA, October 20, 21, 2003.
110. C. Lautenberger, A. Stevanovic, D. Rich, A.C. Fernandez-Pello and J.L. Torero, "An Experimental and Theoretical Study of the Ignition Delay Time of Composite Materials" 2003 Fall Technical Meeting, Western States Section/Combustion Institute, Los Angeles, CA, October 20, 21, 2003.
111. B.M. Swanger, D.C. Walther, A.P. Pisano, and A.C. Fernandez-Pello, "Small-Scale Rotary Engine Power System Development Status" 2004 Spring Technical Meeting, Western States Section/Combustion Institute, Davis, CA, March 29, 30, 2004.
112. B. Sprague, Y. Tsuji, D.C. Walther, A.P. Pisano, and A.C. Fernandez-Pello, "Observations of Flame Speed and Shape in Small Combustion Chambers" 2004 Spring Technical Meeting, Western States Section/Combustion Institute, Davis, CA, March 29, 30, 2004.
113. A. Bar-Ilan, O. Putzeys, G. Rein, A.C. Fernandez-Pello, and D. Urban, "Transition from Forward Smoldering to Flaming in Small Polyurethane Foam Samples" 2004 Spring Technical Meeting, Western States Section/Combustion Institute, Davis, CA, March 29, 30, 2004.

114. C. Lautenberger, D. Rich, A.C. Fernandez-Pello, and Z.G. Yuan, "Modeling Ignition of Solid Combustibles in Normal and Micro Gravity" Poster presentation 30<sup>th</sup> Symposium International on Combustion, Chicago, Ill. July 2004.
115. Y. Tsuji, B. Sprague, D. Walther, A. Pisano, and A.C. Fernandez-Pello, "Flame Propagation in 2-D Channels" Asian Conference on Propulsion and Power 2005, Kita-Kyusyu, Japan, January 2005 (with Tsuji, Y., Sprague, B. Walther, D., and Pisano, A.)
116. G. Rein, C. Lautenberger, A.C. Fernandez-Pello, J. Torero and D. Urban, "Derivation of the Kinetics Parameters of Polyurethane Foam using Genetic Algorithms" 2005 Joint Technical Meeting of the Combustion Institute, Philadelphia, PA, March 21,22, 2005.
117. C. Lautenberger, D. Rich, J. Hernandez, and A.C. Fernandez-Pello, "Critical Burning Rate: A Criterion for Pilot Ignition", Fire Research: Current Trends and Future Perspectives Conference, BRE, Watford, UK , April 19, 2005.
118. C. Lautenberger and A.C. Fernandez-Pello, "The Use of Genetic Algorithms to Determine the Parameters Controlling Composites Ignition" Second International Fire Bridge Conference, Belfast, Northern Ireland, UK, May 9-11, 2005.
119. G. Rein, C. Lautenberger, and A.C. Fernandez-Pello, " Using Genetic Algorithms to Derive the Kinetics of Smoldering Combustion," ICCHMT, Heat Transfer Modeling, Paris, France, May 17-19, 2005. Also 20th International Colloquium on the Dynamics of Explosions and Reactive Systems, Montreal, Canada, July 31-August 5, 2005.
120. K. Macko, M. Mikofski, A.C. Fernandez-Pello, and L. Blevins, "Laser Extinction in Laminar Inverse Diffusion Flames," 2005 Fall Technical Meeting, Western States Section/Combustion Institute, Stanford, CA, October 17,18, 2005.
121. N.B. Brovig, D.C. Walther, D. Bjerketvedt, and A.C. Fernandez-Pello, "Experimental Investigation of Premixed Flame Propagation in Silicon Channels" Proceedings of Power MEMS 2005 Workshop, Tokyo, Japan, Nov. 28-30, 2005.
122. D. Rich, C. Lautenberger, S. McAllister, and A.C. Fernandez-Pello, "Microgravity Flame Spread Rates over Samples of Polymer/Glass Composites" 2006 Spring Technical Meeting, Western States Section/Combustion Institute, Boise, Idaho, March 27,28, 2006.
123. E.A. Parra, K.J.S. Pister, and A.C. Fernandez-Pello, "Solid Propellant Micro-Thruster" International Mechanical Engineering Congress & Exposition (IMECE), Chicago, Il, November 5-10, 2006. Also Proceedings of the Sixth International Workshop on Micro and Nanotechnology for Power Generation and Energy Conversion Applications, PowerMEMS 2006, UC Berkeley, November 19-December 1, 2006, pp.25-28, 2006.

124. S. McAllister, D. Rich, C. Lautenberger, A.C. Fernandez-Pello, and Z.G. Yuan, "An Analytical Model for Opposed-Flow Flame Spread Rates over Polymers and Polymer/Glass Composites" 5<sup>th</sup> US Combustion Meeting/WSS/CI, UC San Diego, CA, March 25-28, 2007.
125. O. Putzeys, A.C. Fernandez-Pello, and D.L. Urban, "Piloted Ignition to Flaming in Smoldering Fire-Retarded Polyurethane Foam" 5<sup>th</sup> US Combustion Meeting/WSS/CI, UC San Diego, CA, March 25-28, 2007.
126. C. Lautenberger and A.C. Fernandez-Pello, "Generalized Pyrolysis Model for Combustible Solids" 2007 Annual Fire Research Conference, NIST, Gaithersburg, MD, April 4,5, 2007.
127. G. Rein, J.L. Torero, and A.C. Fernandez-Pello, "Modeling the Propagation of Forward and Opposed Smoldering Combustion" Eurotherm 81, Reactive Heat Transfer in Porous Media, Albi, France. June 4-6, 2007.
128. A. Dodd, C. Lautenberger and A.C. Fernandez-Pello, "Numerical Modeling of Two-Dimensional Smolder Structure" 2007 Technical Meeting of the Eastern States Section of the Combustion Institute, Charlottesville, VA, October 21-24, 2007
129. S-W. Park, S. B. Sprague, D. C. Walther<sup>1</sup>, A. P. Pisano<sup>1</sup> and A. C. Fernandez-Pello, "Improved Power Generation of a Small-Scale, Naturally Aspirated and Liquid Fuel Injected Rotary Engine" PowerMEMS 2007, Freiburg, Germany, Nov. 28-29, 2007
130. S. B. Sprague and C. Fernandez-Pello "Development of Small-Scale Internal Combustion Rotary Engines" Seventh International Symposium on Advanced Fluid Information (AFI/TFI 2007), Sendai, Japan, December 14-15, 2007
131. S. McAllister, C. Fernandez-Pello, G. Ruff and D. Urban " Ignition Delay of Combustible Materials in Space Exploration Atmospheres" 38<sup>th</sup> International Conference on Environmental Systems (08ICES), San Francisco, CA, June29-July2, 2008
132. C. Lautenberger and C. Fernandez-Pello "Spotting Ignition of Fuel Beds by Firebrands" First International Conference on Modeling, Monitoring, and Management of Forest Fires 2008, University of Castilla-La Mancha, Toledo, Spain, September 17-19, 2008
133. C. Lautenberger, W. Wong, N. Dembsey, A. Coles and A.C. Fernandez-Pello " Large Scale Turbulent Flame Spread Modeling with FDS5 on Charring and Noncharring Materials" 12<sup>th</sup> International Conference, Fire and Materials 2009, San Francisco, CA, January 26-28, 2009
134. A.B. Dodd, C. Lautenberger and A.C. Fernandez-Pello "Numerical Modeling of Smolder Combustion and Transition to Flaming", 6<sup>th</sup> US National Combustion Meeting, Ann Arbor, MI, May 17-20, 2009
135. R. Xie, J. Rheume, A. Pisano and C. Fernandez-Pello "Two-dimensional Printed Flame Ionization Sensor", 6<sup>th</sup> US National Combustion Meeting, Ann Arbor, MI, May 17-20, 2009

136. W. Wong , C. Lautenberger, A. Coles, N. Dembsey, and A.C. Fernandez-Pello “ Vertical Wall Flame Spread Experiments Modeling with FDS5” SFPE Engineering Technology Conference, Scottsdale, AR, October 18-23, 2009
137. S. McAllister, C. Fernandez-Pello, G. Ruff and D. Urban “Ignition Delay of Combustible Materials in Normoxic Equivalent Environments” 39<sup>th</sup> International Conference on Environmental Systems, Savannah, GA, July 12-16 (2009)
138. S. Fereres, C. Fernandez-Pello, D. Urban and G. Ruff “Critical Mass Flux at Ignition in Reduced Pressure Environments” 2009 Fall Technical Meeting, Western States Section/Combustion Institute, U.C. Irvine, CA, October 26-27, paper 09F-11, (2009).
139. C. Lautenberger, S. Fereres, S. Scott, R. Hadden and C. Fernandez-Pello “Ignition of Combustible Fuel Beds by Embers and Heated Particles” 2009 Fall Technical Meeting, Western States Section/Combustion Institute, U.C. Irvine, CA, October 26-27, paper 09F-26, (2009).
140. S. Fereres, C. Lautenberger, C. Fernandez-Pello, D. Urban and G. Ruff “Mass Loss Rate at Ignition in Reduced Pressure Environments” 2010 Spring Technical Meeting, Western States Section/Combustion Institute, University of Colorado Boulder, CO, March 22-23, (2010).
141. S. Scott, R. Hadden, S. Fereres, C. Lautenberger, and A. C. Fernandez-Pello “Ignition of Combustible Fuel Beds by Heated Metal Particles: An Experimental and Theoretical Study” 2010 Spring Technical Meeting, Western States Section/Combustion Institute, University of Colorado Boulder, CO, March 22-23, (2010).
142. C. Lautenberger, W. Wong , A. Coles, N. Dembsey, and A.C. Fernandez-Pello “Comprehensive Data Set for Validation of Fire Growth Models: Experiments and Modeling” International Congress on Combustion and fire Dynamics, Santander, Spain, October 20-23, (2010)
143. R. Hadden, S. Scott, a. Yun, C. Lautenberger, and A. C. Fernandez-Pello “Ignition of Cellulose Fuel Beds by Heated Metal Particles” ” International Congress on Combustion and fire Dynamics, Santander, Spain, October 20-23, (2010)
144. S. Fereres, C. Lautenberger, C. Fernandez-Pello, D. Urban and G. Ruff “Effect of Cabin Pressure on the Piloted Ignition of Combustible Solids” The Sixth Triennial International Fire and Cabin Safety Research Conference, FAA, Atlantic City, NJ, October 25-28, (2010).
145. S. Fereres, C. Lautenberger, C. Fernandez-Pello, G. Ruff and D. Urban “ Modeling the Effect of Ambient Variables on piloted Ignition of Solid Combustible Materials” 7th U.S. National Combustion Meeting, Georgia Institute of Technology, March 20-23, (2011).

#### **IV. INVITED LECTURES, PAPERS AT MEETINGS AND SEMINARS**

1. "Torres de Refrigeracion," II Convencion de Ingenieros Industriales, Barcelona (Spain), October 1971.
2. "Laminar Flame Spread Over Flat Solid Surfaces," Princeton University, Princeton, NJ, July, 1976.
3. "Experimental and Theoretical Studies of Flame Spread Over Solid Fuels," AVCO Everett Research Laboratories, Everett, MA, August, 1976.
4. "Downward Flame Spread Over the Surface of Solid Fuels," University of California, Berkeley, CA, October, 1976.
5. "A Theoretical Model of Downward Flame Spread Over Flat Solid Combustibles," Harvard University, Cambridge, MA, October, 1976.
6. "Upward Flame Spread Under the Influence of Externally Applied Thermal Radiation," Brown University, Providence, RI, March, 1977.
7. "Downward Flame Spread in an Opposed Forced Flow," Princeton University, Princeton, NJ, April 1978.
8. "Downward Flame Spread in an Opposed Forced Flow," National Bureau of Standards, Washington, D.C., July 1978.
9. "Flame Spread Mechanisms," University of California, Berkeley, CA, October, 1978.
10. "Flame Spread in a Forward Forced Flow," Northwestern University, Evanston, IL, November, 1978.
11. "Flame Spread in a Forward Forced Flow," Princeton University, Princeton, NJ, February, 1979.
12. "Energy Transfer Mechanisms in Flame Propagation," University of Kentucky, Lexington, KY, March, 1979.
13. "Flame Propagation in Opposed Forced Flows," Princeton University, Princeton, NJ, November 1979.
14. "Combustion of Solid and Liquid Fuels," A week-long series of seminars given at the National Autonomous University of Mexico (U.N.A.M.), Mexico City, Mexico, March 1980.



15. "Flame Spread in an Opposed Flow: Effect of Oxygen Concentration and Gas Velocity," University of California, Berkeley, CA, May, 1980.
16. "Free-Convective Burning of a Fuel Droplet," National Bureau of Standards, Washington, D.C., September, 1980.
17. "A Theory for the Free-Convective Burning of a Condensed Fuel Particle," University of California, Berkeley, CA, November, 1980.
18. "Combustion and Extinction of a Condensed Fuel Particle in a Highly Buoyant Environment," Sandia National Laboratories, Livermore, CA, December, 1980.
19. "Panel Discussion on Flame Spread," invited lecture at the 1981 Fall Technical Meeting, Eastern States Section/The Combustion Institute, October 1981.
20. "Combustion of Condensed Fuels," a series of eight weekly seminars given at the Department of Mechanical Engineering, Osaka University, Osaka, Japan, January-March, 1982.
21. "Combustion Processes," a series of four seminars given at the Faculty of Engineering, Autonomous University of Mexico (U.N.A.M.), Mexico City, Mexico, June 1982.
22. "Flame Spread Over Condensed Fuels," Ishikawajima-Harima Heavy Industries, Co., Tokyo, Japan, January 1983.
23. "Micro-Explosive Combustion of Droplets of Emulsified and Multicomponent Fuels," Matsushita Electrical Industrial Co., Nara, Japan, January 1983.
24. "Droplet Combustion of Multi-Component Fuels," Department of Energy Engineering, Toyohashi University of Technology, Toyohashi, Japan, January 1983.
25. "Gas Phase Ignition by Catalytic Surfaces," Osaka Gas Co., Osaka, Japan, March 1983.
26. "Controlling Mechanisms in the Combustion of Condensed Fuels," Instituto Politecnico Nacional, ESIME, Seccion de Graduados, Mexico, D.F., April 1983.
27. "Flame Spread Mechanisms," Department of Reaction Chemistry, University of Tokyo, Japan, June 1983.
28. "Convective Combustion of Fuel Droplets," Engineering Research Institute, University of Tokyo, Tokyo, Japan, June 1983.
29. "Mixed Convective Combustion of Condensed Fuels," Institute of Interdisciplinary Studies, University of Tokyo, Tokyo, Japan, July 1983.

30. "Micro-Explosive Combustion of Droplets of Fuel Emulsions and Mixtures," Research Institute, Ishikawajima-Harima Heavy Industries, Tokyo, Japan, August 1983.
31. "Convective Droplet Evaporation and Combustion with Internal Circulation," Stanford University, Stanford, CA, June 1984.
32. "Ignition and Extinction of Condensed Fuels," University of California, Berkeley, CA, September, 1984.
33. "Flame Spread over Liquid Fuels with Emphasis in Cryogenic Fuels," Combustion Research Workshop, Cairo University, Egypt, February 1985.
34. "Ignition of Premixed Gases by Cylindrical Surfaces," Madrid University, Spain, March 1985.
35. "Extinction of Diffusion Flames," University of California, Davis, CA, May 1985.
36. "Extinction and Ignition of Condensed Fuels," ITSEMAP, Madrid, Spain, July 1985.
37. "Extinction of a Diffusion Flame on a Vertical Combustible Surface," NBS, Washington, D.C., April 1986.
38. "Stabilization of Diffusion Flames on Flat Combustible Surfaces," Pennsylvania State University, College Park, PA, April 1986.
39. "Flame Spread Mechanisms," University of California, San Diego, CA, April 1987.
40. "Smoldering in Micro-Gravity," CEDETI, Madrid, Spain, June 1987.
41. "Convective Droplet Combustion," University of Naples, Naples, Italy, July 1987.
42. "Flame Spread Mechanisms," University of Naples, Naples, Italy, July 1987.
43. "Flame Spread over Liquid Fuels," CNRS, Poitiers, France, September 1987.
44. "Droplet Combustion," CNRS, Orleans, France, November 1987.
45. "Fire Dynamics of Electrical Cables," LOSEC, Londonderry, Australia, May 1988.
46. "Flame Spread Controlling Mechanisms," University of Sydney, Sydney, Australia, June 1988.
47. "Instabilities in Burner Anchored Premixed Flames," Osaka Gas Co., Osaka, Japan, June 1988.

48. "Turbulent Flame Spread," NIST Annual Fire Conference, Maryland, October 1988.
49. "Cellular Flame Instabilities," University of Naples, Naples, Italy, June 1989.
50. "Concurrent Turbulent Flame Spread," 11th Panel Meeting of the UJNR Panel on Fire Research and Safety, October 1989.
51. "Cellular Premixed Flames in Micro-Gravity," Tsukuba International Workshop on Combustion, Tsukuba, Japan, March 21-24, 1990.
52. "Cellular Premixed Flames in Micro-Gravity," Tsukuba International Workshop on Combustion, Tsukuba, Japan, March 21-24, 1990.
53. "Window Glass Breaking Under Radiant Heat Flux from a Fire," ASTM Research Review, ASTM Spring Meeting, San Francisco, CA, May 1990.
54. "Pool and Wall Fire: Some Fundamental Aspects," lead-off paper ASME/JSME Thermal Engineering Joint Conference, Reno, NV 1991.
55. "Turbulent Solid Fuel Combustion," Hitachi, Tsukuba City, Japan, January 1991 and Tokyo University January 1991.
56. "Instabilities in Premixed Flames," MEL, MITI, Tsukuba City, Japan, January 1991 and Osaka Gas, Osaka, January 1991.
57. "Experience de Combustion Dans L'Espace et dans les Conditions de Microgravite" Espace Pierre Mendes-France, Salle Confluence, Poitiers, France, March 27, 1992.
58. "Analysis of a Run Away High Rack Storage Fire," NFPA Fall Meeting, Dallas, TX, November 1992 (with N.J. Alvares, H. Hasegawa, K. Hout and J. White).
59. "Effect of Flow Parameters on CO and Soot Production in Flame Spread," Second Workshop on Developing a Predictive Capability for CO Formation in Fires, New Orleans, LA, March 1993.
60. "Combustion in Microgravity," series of seminars given at the University of Barcelona and Girona, Spain, April 1993.
61. "Smoldering Combustion in Microgravity," University of California, San Diego, April 1993.
62. "Smoldering Combustion Experiments in the Space Shuttle," University of California, Davis, May 1993.
63. "USML-1 Glovebox Experiment #6 - Smoldering Combustion," NASA, USML-1 progress Report Meeting, Huntsville, AL, September 1993.

64. "Smoldering Combustion in Zero Gravity: From Ground to Space Based Experiments," Hitachi Mechanical Engineering Lab, Tsichiuara, Japan, November 1993.
65. "Premixed and Diffusion Flames in Microgravity," Osaka Gas, Osaka, Japan, November 1993.
66. "On Ignition and Flame Spread," University of California, San Diego, May 1994.
67. "Smoldering Combustion," Northwestern University, Evanston, IL, May 1994.
68. "Smoldering Combustion in Microgravity," University of California, Irvine, May 1994.
69. "Smoldering in the Presence of a Gas/Solid Interface and its Transition to Flaming," Work-in-Progress Poster, Twenty-Fifth International Symposium on Combustion, Irvine, CA, Aug. 1994 (with S.O. Tse, C.G. Sanchez and O. Fujita).
70. "Concurrent Flame Spread: The Combined Effect of Flow Velocity, Turbulence and Oxygen Concentration, Work-in-Progress Poster, Twenty-Fifth International Symposium on Combustion, Irvine, CA, Aug. 1994 (with Y.H. Chao and O. Fujita).
71. "Influence of Gravity and Pressure on Pool Fire Type Diffusion Flames," Work-in-Progress Poster, Twenty-Fifth International Symposium on Combustion, Irvine, CA, Aug. 1994 (with J. Chen, J.M. Most, P. Joulain and D. Durox)
72. "On Solid Fuel Ignition and Flame Spread" Zel'dovich Memorial International Conference on Combustion, Moscow, Russia, Sep. 1994.
73. "On Solid Fuel Ignition and Flame Spread" 20th International Conference on Fire Research, San Francisco, CA, Jan, 1995
74. "Combustion of Solid Fuels" Sandia National Laboratory, Albuquerque, NM, May 1995.
75. "Smoldering Combustion in Microgravity" Royal Academy of Sciences of Spain, Madrid, Spain, Jun. 1995
76. "Two-dimensional Smoldering and its Transition to Flaming" 8th International Symposium on Transport Phenomena in Combustion, San Francisco, CA. Aug. 1995 (with S.D. Tse)
77. "On Solid Fuel Ignition and Flame Spread" Department of Mechanical & Aerospace Engineering, Princeton University, Princeton, N.J., October 6, 1995
78. "Ignition and Flame Spread Over a Solid Combustible" E. T. S. Aeronautical Engineering, Madrid University, Madrid, Spain, January 1996

79. "Spray Combustion of Emulsified Fuels" ILP Conference, College of Engineering, University of California Berkeley, CA., March 14, 1996
80. "Controlling Mechanisms in the Transition from Smoldering to Flaming" Department of Mechanical and Aerospace Engineering, University of California Irvine, CA., May 31, 1996
81. "Smoldering Combustion Experiments in Microgravity" Poster Presentation, *Twenty-Sixth Symposium (International) on Combustion*, The Combustion Institute, Naples, Italy, August 3 1996 (with D. Walther and D. Urban)
82. "Combustion in Reduced Gravity" Meeting of the Berkeley Chapter of Pi Tau Sigma, Berkeley, CA, October 1, 1996
83. "Combustion in Reduced Gravity" Meeting of the Berkeley Chapter of the ASME, Berkeley, CA, October 30, 1996
84. "Fired up in Space" Invited Presentation at the Fall Membership Meeting, Berkeley Engineering Alumni Society, Commerce, CA, November 13, 1996
85. "Piloted Ignition of a Solid Combustible Material under a Thermal Radiant Flux: The Effect of the Oxidizer Flow Velocity" ASTM Winter Technical Meeting, San Diego, CA, Dec.8, 1998
86. "Forward Smolder Ignition of Polyurethane Foam" 25th International Conference on Fire Safety, Millbrae, CA, January 14, 1998 (with Anthenien, R.)
87. "Test Method for Ranking the Fire Properties of Materials in Space Based Facilities" Advanced Research Workshop, NATO Science Committee, Novosibirsk, Russia, May 12, 1998
88. "Combustion in Reduced Gravity" MEL, Hitachi, Tsichiura, Japan, July 13, 1998
89. "MEMS Opportunities in Thermal Management" Thermal Management Workshop, 1998 Defense Science Research Council Summer Conference, La Jolla, CA, July 20, 1998
90. "MEMS Wankel Internal Combustion Engine" Department of Electrical Engineering and Computer Sciences, University of California, Berkeley, November 16, 1998
91. "Numerical Model of the Pyrolysis of a Solid Fuel under an External Radiant Flux" Mathematical Modeling in Combustion Workshop, Zacatecas, Mexico, November 20, 1998 (with J.L. Cordova)
92. "A Forced Flow Ignition and Flame Spread Test Method for the Fire Properties of Materials" Twenty-Seventh International Conference on Fire Safety, San Francisco, CA, January 11-12, 1999 (with J.L. Cordova)

93. "Issues and Opportunities in MEMS Thermosciences Systems" Department of Mechanical Engineering, University of California, Berkeley, March 29, 1999.
94. "Fired up in Space" Cal Day, Berkeley, CA, April 17, 1999
95. "Issues and Opportunities in MEMS Thermosciences Systems" School of Engineering, University of California, Irvine, April 22, 1999
96. "Issues and Opportunities in MEMS Thermosciences Systems" Department of Applied Mechanics and Engineering Sciences, University of California, San Diego, June 3, 1999
97. "Numerical Analysis of the Endothermic Pyrolysis and Ignition Delay of Composite Materials Exposed to an External Radiant Flux" Institute of Mathematics and its Applications, IMA Workshop on Fire, Minneapolis, MN, October 11, 1999 (with Zhou, Y.)
98. "MEMS Rotary Internal Combustion Engine" DARPA, MEMS, PI Meeting, Atlanta, GA, January 14, 2000
99. "Microgravity Ignition Delay of Solid Fuels in Low Velocity Flows" Department of Applied Mechanics and Engineering Sciences, University of California, San Diego, CA April 17, 2000
100. "MEMS Rotary Internal Combustion Engine" Chevron Research, Richmond, CA, April 26, 2000
101. "Small Scale Combustion Research for Applications to MEMS Rotary IC Engines" Poster Presentation, *Twenty-Eighth Symposium (International) on Combustion*, The Combustion Institute, Edinburgh, Scotland, August 2000 (with K. Fu, A. Knblock and D. Walther)
102. "A Numerical Model for Smoldering Combustion of Polyurethane Foam in Normal and Micro-gravity Conditions" Poster Presentation, *Twenty-Eighth Symposium (International) on Combustion*, The Combustion Institute, Edinburgh, Scotland, August 2000 (with E. Kallman)
103. "Effects of material Composition and Oxidizer Velocity on the Ignition Delay of combustible Solids" Poster Presentation, *Twenty-Eighth Symposium (International) on Combustion*, The Combustion Institute, Edinburgh, Scotland, August 2000 (with J. T. Trevor and D. Walther).
104. "An Application of the Enthalpy-Temperature Hybrid Method to Predict Polymer Pyrolysis and Ignition" II International Workshop on Combustion Modeling, Veracruz, Mexico, February 24, 2001 (with Y.Y. Zhou)
105. "MEMS Power Generation Using Combustion" DHL Seminar, Xerox Parc Research Center, Palo Alto, CA, May 3, 2001

106. "MEMS Power Generation Using Combustion" Solid-State Seminar series, U. C. Davis, Department of Electrical and Computer Engineering, Davis, CA May 11, 2001
107. "MEMS Power Generation Using a Micro Rotary Combustion Engine" HORIBA/STEC, Kyoto, Japan, July 16, 2001
108. "MEMS Power Generation Using a Micro Rotary Combustion Engine" HRL, Malibu, CA, July 26, 2001
109. "MEMS Micro Power Generation Using Combustion" ASME monthly meeting, Berkeley, CA, Dec 11, 2001
110. "MEMS Rotary Engine" USC Aerospace and Mechanical Engineering Seminar Series, Fall 2001, Los Angeles, CA, Dec. 12 2001
111. "Micro-Scale Power Generation Using Combustion" School of Aeronautical Engineering, Madrid Polytechnic University, Spain, January 17, 2002.
112. "Microscale Combustion: Issues and Opportunities" Princeton University, Department of Mechanical & Aerospace Engineering, 2002 Spring Seminar Series, Princeton, NJ, Feb. 15, 2002
113. " MEMS Rotary Engine" Pi Tau Sigma Second general meeting, Department of Mechanical Engineering, U.C. Berkeley, March 20, 2002
114. "Micro-Scale Power Generation Using Combustion" Stanford University, Department of Mechanical Engineering, Stanford, CA, April 30, 2002.
115. "Micro-Scale Power Generation Using Combustion" Sandia National Laboratory, Livermore, CA June 5, 2002.
116. "Micro-Scale Power Generation Using Combustion: Issues and Opportunities". Osaka University, Faculty of Engineering, Osaka, Japan, July 17, 2002.
117. "MEMS Rotary Engine" Hitachi, Mechanical Engineering Laboratories, Tsichiura, Japan, August 6, 2002
118. "Opposed Smolder Combustion in Micro-gravity" Poster presentation, Twenty-Ninth Symposium (International) on Combustion, The Combustion Institute, July 21, 2002, Sapporo, Japan, (with Bar-Ilan, A., Rein, G. and Urban, D.)
119. "A Methodology to Determine Pre-Crash Fuel Loading Through Thermal Destruction Analysis" 2002 GAASI Advanced Technical Workshop, Wichita, KA, October 2002 (with Alvares, N)

120. "MEMS Rotary Engine Power System" Invited Presentation, Power MEMS 2002, Tsukuba, Japan, November 12,13, 2002
121. "MEMS Rotary Engine Power System" IHI Basic Research Laboratories, Yokohama, Japan, November 15, 2002
122. "Micro-scale Combustion for Power Generataion" COE Symposium on Innovation in Mechanical Engineering, Tokyo University, Tokyo, March 7-9, 2004
123. "Micro-scale Combustion for Power Generation" COE Symposium on Innovation in Mechanical Engineering, Tokyo University, Tokyo, March 7-9, 2004.
124. "Thermal Management in Micro-engines" Thermal Management for Micro and Meso Power Systems Conference", Chicago, Il. May 17-19, 2004.
125. "Micro-Power Generation Using Combustion: Issues and Progress" Royal Academy of Engineering, Madrid, Spain, October 2004.
126. "Combustion in Reduced Gravity" ASME Berkeley Student Chapter Annual meeting, U.C. Berkeley, CA, Nov 17 2004
127. "Development of a Test Method to Evaluate the Susceptibility of Materials to Smoldering Combustion" NASA White Sands Test Facility, New Mexico, December 1, 2004.
128. "Combining FDS with Solid Phase Model to Predict Ignition and Flame Spread" Panel on Grand Challenges for Fire and Combustion Research, 2004 ASME International Mechanical Engineering Congress and Exposition, Anaheim, CA, Nov. 13-16, 2004, (with Lautenberger, C.)
129. "Flame Speed and Shape in Small Combustion Chambers" Poster presentation 30<sup>th</sup> Symposium International on Combustion, Chicago, Ill. July 2004. (with Y. Tsuji, B. Sprague, D. Walther, A. Pisano,)
130. "On the Derivation of Polyurethane Foam Kinetic Parameters using Genetic Algorithms" Poster presentation 30<sup>th</sup> Symposium International on Combustion, Chicago, Ill. July 2004. (with G. Rein and J.B. Herren)
131. "Modeling Ignition of Solid Combustibles in Normal and Micro Gravity" Poster presentation 30<sup>th</sup> Symposium International on Combustion, Chicago, Ill. July 2004. (with C. Lautenberger, D. Rich, and Z.G. Yuan,
132. "The Application of Genetic Algorithms to Determine the Kinetic Constants in Heterogeneous Reactions", Fluid Mechanics: A Workshop in Honor of Amable Linan, Granada, Spain, September, 2004 (with G. Rein and C. Lautenberger).



133. "Effect of Initial Pressure, Temperature, and Chamber Size on Pressure Rise in Reduced Scale IC Engine Combustion Chamber" Power MEMS 2004, Tsukuba, Japan, November, 2004 (with Y. Tsuji, B. Sprague, D. Walther, and A. Pisano)
134. "Development of a Test Method to Evaluate the Susceptibility of Materials to Smoldering Combustion" NASA White Sands Test Facility, New Mexico, December 1, 2004.
135. "Flame Propagation in 2-D Channels" Asian Conference on Propulsion and Power 2005, Kita-Kyusyu, Japan, January 2005 (with Tsuji, Y., Sprague, B. Walther, D., and Pisano, A.)
136. "Critical Burning Rate: A Criterion for Pilot Ignition," Fire Research: Current Trends and Future Perspectives Conference, BRE, Watford, UK , April 19, 2005 (with Lautenberger, C. , Rich, D. and Hernandez, J.)
137. "The Use of Genetic Algorithms to Determine the Parameters Controlling Composites Ignition" Second International Fire Bridge Conference, Belfast, Northern Ireland, UK, May 9-11, 2005 (with Lautenberger, C.)
138. "Solid Fuel Ignition in Convective Oxidizer Flows" Laboratoire de Combustion et de Detonique, ENSMA-CNRS, Poitiers, France, April 2005
139. "Development of Small-Scale Rotary Engines" Poster presentation 31st Symposium International on Combustion, Heidelberg, Germany, August 6-11, 2006 (with Sprague, S.B., Park, S.W., Walther, D.C., and Pisano, A. P.)
140. "Modeling Microgravity Flame Spread Rates over Samples of Polymer and Polymer/Glass Composites" Poster presentation 31st Symposium International on Combustion, Heidelberg, Germany, August 6-11, 2006 (with McAllister, S., Rich, D., Lautenberger, C, and Yuan, Z.G
141. "Solid Propellant Micro-Thruster" International Mechanical Engineering Congress & Exposition (IMECE), Chicago, Il, November 5-10, 2006. (with E. Parra and K. Pister)
142. "On the Trajectory of Sparks and Embers in High Winds – A Potential Source for Spotting Fires" Department of Mechanical Engineering Colloquium, U.C. Riverside, Feb 9, 2007
143. "The Use of Genetic Algorithms to Determine the Parameters Controlling Composites Ignition" Second International Fire Bridge Conference, Belfast, Northern Ireland, UK, May 9-11, 2005 (with Lautenberger, C.)
144. "Microgravity Flame Spread Rates Over Samples of Polymer/Glass Composites," 2006 Spring Technical Meeting, Western States Section/ Combustion Institute, Boise, Idaho, March 27-28, 2006 (with Rich, D., Lautenberger, C., and McAllister, S.)
145. "Trajectory and Combustion of Embers as Origin of Wild-land Spot Fires" Colloque

- Scientifique International “Stopfeux”, IUSTI-Polytech’Marseille, France, May 12, 2006 (with Anthenien, R)
146. “Development of Small-Scale Rotary Engines” Poster presentation 31<sup>st</sup> Symposium International on Combustion, Heidelberg, Germany, August 6-11, 2006. (with S.B. Sprague, S.W. Park, D.C. Walther, and A.P. Pisano)
  147. “Modeling Microgravity Flame Spread Rates over Polymer/Glass Composites” Poster presentation 31<sup>st</sup> Symposium International on Combustion, Heidelberg, Germany, August 6-11, 2006.(with . S. McAllister, D. Rich, C. Lautenberger, A.C.and Z.G. Yuan)
  148. “Development of Small-Scale Internal Combustion Rotary Engines” Department of Mechanical Engineering, University of Illinois at Urban-Champaign, Feb 27, 2007
  149. “Generalized Pyrolysis Model for Combustible Solids” 2007 Annual Fire Research Conference, NIST, Gaithersburgh, MD, April 4,5, 2007 (with C. Lautenberger)
  150. “MEMS to Generate Small Scale Power Using Combustion” XIV Seminario Enzo Levi, Autonomous University of Mexico (UNAM), Cuernavaca, Mexico, May 17, 18, 2007
  151. “Development of Small-Scale Internal Combustion Rotary Engines” Recent Developments in Energy and Combustion Science, Richmond, VA, October 19-21, 2007
  152. “Preliminary Study of the Ignition of Vegetation Bed by a Firebrand” Workshop on Mathematical Modeling and Numerical Simulation of Forest Fire Propagation, Vigo, Spain November 29-30, 2007 (with S. Fereres and C. Lautenberger)
  153. “Characterization of Small-Scale Internal Combustion Rotary Engines” 4th International Symposium on Innovative Aerial/Space Flyer Systems, Tokyo, Japan, January 14-15, 2008 (with S.B. Sprague)
  154. “Multidimensional Numerical Modeling of Smoldering Combustion”. 2008 SIAM International Conference on Numerical Combustion, Monterey, CA, March 31 2008. (with E. Kallman)
  155. “Modeling Wildland Fire Development” Seminar Series, Department of Mechanical Engineering, University of California, Berkeley, CA, October 22, 2008
  155. "A Microwave-Assisted Fast Pyrolysis Reactor for Conversion of Biomass to Bio-Crude". Poster presentation KAUST Meeting, University of California, Berkeley, January 2009 (with D. Rich and R. Dibble)
  156. “Smart Combustion Sensor Technology”. Poster presentation KAUST Meeting, University of California, Berkeley, January 2009 (with A. Pisano)

156. “Modeling Wildland Fire Propagation and Spotting” The University of Edinburgh, Scotland, UK March 27, 2009
157. “Modeling Wildland Fire Propagation and Spotting” Seminar on Forecasting and Modeling Wildfire Risk for UK Moorlands and Heaths, The University of Manchester, Manchester, UK March 31-April 1, 2009 (with C. Lautenberger)
158. “Material Flammability in Spacecraft” SURVIAC Bulletin, U.S. Department of Defense Information Analysis Center, Vol. XXV, Issue 1, 2009 (with S. McAllister)
159. “Modeling the Transition from Smoldering to Flaming” 11<sup>th</sup> Journées du GDR Incendie” CSTB-Champs sur Mare, France, June 17,18 2010 (with A. Dodd and C. Lautenberger)