

PUBLIC LECTURES:

1. "An Introduction to Combustion Instability Research," a series of Lectures at Marshall Space Center in Huntsville, Alabama, October 1963.
 2. "Nonlinear Oscillations in a Rocket Motor," Aerospace Seminar, University of California, Berkeley, CA, November 1963.
 3. "A Shock-Wave Model of Unstable Rocket Motors," AIAA Solid Rockets Conference, Palo Alto, CA, January 1964.
 4. "Some Combustion Instability Researches," University of Virginia, April 1966.
 5. "A Shock-Wave Model of Unstable Rocket Combustors," Pennsylvania State University, May 1966.
 6. "Combustion Instability Research," Aerospace Corporation, San Bernardino, CA, June 1966.
 7. "Acoustic Liner Studies," 3rd ICRPG Liquid Combustion Conference, Cape Kennedy, FL, October 1966.
 8. "Combustion Instability Research at Guggenheim Laboratories," NASA Lewis Laboratories, Cleveland, OH, November 1966.
 9. "Nonlinear Oscillations in Liquid Rocket Combustion Chambers," First International Colloquium on Gas Dynamics of Explosions, Brussels, Belgium, September 1967.
- A series of seven AGARD-sponsored lectures in France, The Netherlands, Norway, and West Germany during August and September 1967:
10. "Some Theory and Experiments in the Field of Combustion Instability," Deutsche Versuchsanstalt für Luft-und-Raumfahrt, Lampoldshausen, W. Germany.
 11. "Theory of Nonlinear Combustion Oscillations," Deutsche Versuchsanstalt für Luft-und-Raumfahrt, Lampoldshausen, Stuttgart, W. Germany.
 12. "Liquid Droplet Burning in an Oscillatory Field," Deutsche Versuchsanstalt für Luft-und-Raumfahrt, Trauen, W. Germany.
 13. "Nonsteady Solid Propellant Burning," Norwegian Defense Research Establishment, Kjeller, Norway.
 14. "Nonsteady Solid Propellant Burning," Delft Technical University and Defense Research Laboratories, The Netherlands.

15. "Nonsteady Solid Propellant Combustion" and "Theory of Liquid Droplet Burning," Office National d'Etudes Recherches Aerospatiales, Chatillonsous Bagneux, France.
16. "Non-Steady Burning of Solid Propellants," Georgia Institute of Technology, Atlanta, GA, November 1967.
17. "Quasi-Steady Assumptions for Gas Phase of Solid Propellant Combustion," Conference on the Theory of Coupling of Combustion with Gas Dynamics Flow Field, Princeton, NJ, January 1968.
18. "A Theory of Axial-Mode Shock Wave Oscillations in a Solid Rocket Combustor," Twelfth International Symposium on Combustion, University of Poitiers, France, July 1968.
19. "Theoretical Analysis of Nonlinear Transverse Combustion Instability in Liquid Propellant Rocket Motors Using a Droplet Evaporation Model," 5th ICRPG Liquid Combustion Conference, Johns Hopkins University, October 1968.
20. "Flame Spreading on Liquid Fuels: Surface-Tension-Driven Flows," Columbia University, March 1969.
21. Invited comments on "A Theoretical Study of Nonlinear Damping by Helmholtz Resonators" by B.T. Zinn, AIAA 5th Propulsion Joint Specialists Conference, U.S. Air Force Academy, June 1969.
22. "Near-resonant, Off-resonant, and Quasi-steady Theories of Acoustic Liner Operation," 6th ICRPG Liquid Propellant Combustion Conference, Illinois Institute of Technology, September 1969.
23. "Axisymmetric Jet Diffusion Flame in an External Oscillating Stream," 6th ICRPG Liquid Propellant Combustion Conference, Illinois Institute of Technology, September 1969.
24. "Longitudinal Mode Oscillations in an End-Burning Solid Rocket Motor," 6th ICRPG Solid Propellant Combustion Conference, Jet Propulsion Laboratory, California Institute of Technology, October 1969.
25. "Flame Spreading Above Liquid Fuels: Surface-Tension Driven Flows," Western States Section/ Combustion Institute Fall Meeting, University of California, San Diego, CA, October 1969.
26. "Surface-Tension-Driven Flows," Univ. of Michigan, Ann Arbor, MI, March 1970.
27. "Some Comments on Turbojet Instability Research," Wright Patterson AF Base, Dayton, OH, March 1970.

28. "Aerospace Propulsion" a graduate level short course (30 hours), Space Research Institute, North Troy, Vermont, March 1970.
29. "Calculation on Rocket Combustion Instability with Droplet Evaporation Model," 7th JANNAF Liquid Combustion Instability Meeting, Pasadena, CA, October 1970.
30. "Acoustic Liner Theory and Experiments," 7th JANNAF Liquid Combustion Instability Meeting, Pasadena, CA, October 1970.
31. "Combustion Model of the Otto Engine," General Motors Research Labs., Warren, Michigan, January 1971.
32. "Acoustic Liner Design from a Fluid Mechanics Approach," AIAA/SAE 7th Propulsion Joint Propulsion Conference, Salt Lake City, UT, June 1971.
33. "A One-Dimensional Analysis of Combustion in a Spark Ignition Engine," Intersociety Energy Conversion Engineering Conference, Boston, MA, August 1971.
34. "Review of Theories of Flame Spread Across Liquid and Solid Fuels," 1971, Eastern Section Combustion Institute Fall Meeting, University of Waterloo, Canada, August 1971.
35. "The Range of Technical Options: Introduction to Non-Specialists," Princeton University Conference on Air Quality and Automobile Emissions: A Case Study, April 1972.
36. "Damping Devices for Various Combustion Environments," 9th JANNAF Combustion Meeting, Monterey, CA, September 1972.
37. "Interaction of Axisymmetric Wake Diffusion Flames with a Coaxial Oscillating Stream," 9th JANNAF Combustion Meeting, Monterey, CA, September 1972.
38. "Fundamentals of Combustion," a series of three tutorial seminars at Sandia Laboratories, Albuquerque, NM, August 1972.
39. "Theory of Turbulent Flame Propagation in Spark Ignition Engines," Rutgers University, October 1972.
40. "Theory of Turbulent Flame Propagation in Spark Ignition Engines," RCA Sarnoff Research Center, March 1973.
41. "Flame Spreading Across Solid Materials," Brooklyn Polytechnic Institute, April 1973.
42. "Theory of Turbulent Flame Propagation in Spark Ignition Engines," Chemical Engineering Department, Princeton University, April 1973.

43. "Theory of Flame Spread Above Solid Fuels," University of California at San Diego, 4th International Colloquium on Gasdynamics of Explosions and Reactive Systems, July 1973.
44. "Flame Spreading Across Liquid Fuels," NSF/RANN Conference on Fire Research, Georgia Institute of Technology, May 1974.
45. "Transient Convective Fuel Droplet Burning and Vaporization," NSF Workshop on Energy-Related Basic Combustion Research, Princeton University, June 1974.
46. "Further Calculations Based Upon a Theory of Flame Spread Across Solid Fuels," Eastern Section/ Combustion Institute Fall Technical Meeting, Johns Hopkins University, October 1974.
47. "Flame Spread Above Solid Fuels," Case Western Reserve University, October 1974.
48. "Flame Spreading Across Materials: A Review of Fundamental Processes," AGARD Conference on Aircraft Fire Safety, Rome, Italy, April 1975.
49. "Preliminary Analysis of a Fuel Droplet in a Convective Field," Joint Meeting of Central and Western States Sections/Combustion Institute, San Antonio, TX, April 1975.
50. "An Approach to Multicomponent, Transient, Convective Fuel Droplet Burning," NSF Workshop on Combustion Modeling, La Jolla, CA, April 1975.
51. "Theory of Multicomponent Fuel Droplet Burning and Vaporization," Northwestern University, October, 1975.
52. "Rocket Nozzle Acoustic Damping," Solid Propellant Combustion Instability Conference, Edwards Air Force Base, CA, October 1975.
53. "Multicomponent Fuel Droplet Burning," Sandia Laboratories, Livermore, CA, October 1975.
54. "Program Report on Ignition of Combustible Mixtures by Hot Metal Particles," AFOSR Meeting, August 1976.
55. "Fundamental Aspects of Flame Spread Across Liquid and Solid Fuels," American Chemical Society Meeting, San Francisco, CA, August 1976.
56. "Transient Heating and Liquid Phase Mass Diffusion in Fuel Droplet Vaporization," American Chemical Society Meeting, San Francisco, CA, August 1976.

57. "Multicomponent, Transient, Convective Fuel Droplet Burning and Vaporization," Purdue University, October 1976.
58. "Multicomponent, Transient Convective Fuel Droplet Burning and Vaporization," University of Illinois, Chicago Circle, October 1976.
59. "Program Report on Unsteady Flame Propagation Through Fuel-Air Sprays," ARO Meeting, Warren, MI, November 1976.
60. "Theory of Flame Spread Over Solid Fuels," University of California, Berkeley, CA, March 1977.
61. "Multicomponent Droplet Vaporization," Lawrence Livermore Laboratories, May 1977.
62. "Program Report on Multicomponent Fuel Droplet Vaporization with Internal Circulation," DOE Meeting, San Francisco, CA, July 1977.
63. "A Theory of Multicomponent Fuel Droplet Vaporization," V International Symposium on Combustion Processes, Krakow, Poland, September 1977.
64. "Program Report on Unsteady Flame Propagation Through Fuel-Air Sprays," ARO Meeting, Purdue University, January 1978.
65. "Multicomponent Fuel Droplet Vaporization with Internal Circulation," University of California, Davis, March 1978.
66. "Multicomponent Fuel Droplet Vaporization with Internal Circulation," California Institute of Technology, March 1978.
67. "An Overview of Turbulent Combustion Modelling and Multicomponent Fuel Vaporization Studies at Princeton University," Sandia Laboratories, March 1978.
68. "Unsteady Flame Propagation Through a Fuel-Air Spray with Droplet Heating," Central States Section/ Combustion Institute Meeting, April 1978.
69. "Program Report on Multicomponent Droplet Vaporization," DOE Contractors' Meeting, Washington, D.C., September 1978.
70. "Program Report on Study of Ignition by Burning Metal Particles," AFOSR Meeting, October 1978.
71. "Program Report on Turbulent Reacting Mixing Layers," ONR Project SQUID Meeting, Yale University, October 1978.

72. "Theory of Convective Droplet Vaporization With Unsteady Heat Transfer in the Circulating Liquid Phase," AIAA Aerospace Sciences Meeting, New Orleans, LA, January 1979.
73. "Review of Spray Combustion and Fuel Droplet Vaporization Studies," Sandia Laboratories, Livermore, CA February 1979.
74. "Numerical Prediction of Axisymmetric Laminar and Turbulent Flows in Motored, Reciprocating Internal Combustion Engines," SAE Meeting, Detroit, MI, February 1979.
75. "Turbulent Reacting Planar Mixing Layer Theory," Aerochem Research Laboratories, June 1979.
76. "Flame Propagation Through Fuel-Air Sprays," ARO Meeting, University of Wisconsin, June 1979.
77. "Comparisons Amongst Various Theories for Turbulent, Reacting, Planar Mixing Layers," 7th Colloquium on the Gasdynamics of Explosions and Reactive Systems, University of Gottingen, August 1979.
78. "Program Report on Turbulent Reacting Flows," ONR Project SQUID Meeting, California Institute of Technology, Pasadena, CA, October 1979.
79. "Laser Doppler Velocimetry Measurements in a Motored IC Engine," AIAA Aerospace Sciences Meeting, Pasadena, CA, January 1980.
80. "Progress Report on Multiple Ignition Studies," AFOSR Meeting, Alexandria, VA, January 1980.
81. "Turbulent Combustion Modelling," University of Pittsburgh, February 1980.
82. "Multicomponent Fuel Droplet Vaporization with Liquid Phase Mass Diffusion and Internal Circulation," U.S. Bureau of Mines, February 1980.
83. "Multicomponent Fuel Droplet Vaporization with Liquid Phase Mass Diffusion and Internal Circulation," Pennsylvania State University, April 1980.
84. "Spray Combustion," a series of ten lectures presented at Politecnico de Milano, June 1980.
85. "Turbulent Combustion," a series of ten lectures presented at Politecnico de Milano, June 1980.
86. "Ignition of a Combustible Mixture by an Inert Hot Particle," Combustion Symposium University of Waterloo, August 1980.

87. "Turbulent Flow Field in Homogeneous-Charge, Spark Ignition Engines," Combustion Symposium, University of Waterloo, August 1980.
88. "Progress on Swirling Reacting Turbulent Flow Studies," ONR Project SQUID Meeting, MIT, October 1980.
89. "Multicomponent Fuel Droplet Vaporization with Liquid-Phase Mass Diffusion and Internal Circulation," University of Pennsylvania, October 1980.
90. "A Review of Spray Combustion Research at Carnegie-Mellon University," Sandia Laboratories, Livermore, CA, March 24, 1981.
91. "Progress Report on Ignition and Flame Propagation in Spray Research Program," ARO Workshop, Georgia Institute of Technology, Atlanta, GA, April 1981.
92. "Multicomponent Fuel Droplet Vaporization," Department of Mechanical Engineering, Stevens Institute of Technology, Hoboken, NJ, April 1981.
93. "Multiple Ignition, Combustion and Quenching of Hydrocarbon Fuel Sprays," AFOSR Contractors' Meeting, Clearwater, FL, November 1981.
94. "Vaporization of Synthetic Fuels," Combustion Contractors' Review Meeting, Pittsburgh Energy Technology Center, Holiday Inn, Pittsburgh, PA, April 1982.
95. "Spray Combustion in a Turbulent Environment," United States-Italy Joint Workshop on Heat Transfer in Combustion, Pisa, Italy, September 1982.
96. "Ignition of Fuels by Incendiary Particles and Hot Bodies," AFOSR Contractors' Meeting, Clearwater, FL, November 1982.
97. "Computation of Laminar Spray Flames; Hybrid Eulerian-Lagrangian Schemes," Eastern Section/Combustion Institute Fall Technical Meeting, Atlantic City, NJ, December 1982.
98. "Fuel Droplet Vaporization and Spray Combustion Theory," Eastern Section/Combustion Institute Fall Technical Meeting, Atlantic City, NJ, December 1982.
99. "A Comparison of Vaporization Models in Spray Calculations," AIAA 21st Aerospace Sciences Meeting, Reno, NV, January 1983.
100. "Fuel Droplet Vaporization and Spray Combustion," UC Berkeley, February 1983.
101. "Fuel Droplet Vaporization and Spray Combustion," UC Irvine, February 1983.

102. "Analysis of Vaporizing Droplet with Slip, Internal Circulation, and Unsteady Liquid-Phase and Quasi-Steady Gas-Phase Heat Transfer," ASME-JSME Thermal Engineering Joint Conference, Honolulu, HI, March 1983.
103. ONR Contractors' Meeting, Ramjet Workshop, Georgia Institute of Technology, Atlanta, GA, April 1983.
104. "Ignition and Combustion of Liquid and Gaseous Hydrocarbon Fuels," AFOSR Contractors' Meeting on Airbreathing Combustion Dynamics Research, Scottsdale, AZ, September 1983.
105. "Fuel Droplet Vaporization," US-China Joint Workshop, Peking, China, October 1983.
106. "Ignition of Fuel-Air Spray Mixtures by Hot Surfaces," Eastern Section/Combustion Institute Fall Technical Meeting, Providence, RI, November 1983.
107. "Fuel Droplet Vaporization," Rensselaer Polytechnic Institute, November 1983.
108. "Fuel Droplet Vaporization," United Technologies Research Center, November 1983.
109. "Fuel Droplet Vaporization," Cornell University, November 1983.
110. "Molecular Mixing in a Turbulent Flow: Some Fundamental Considerations," AIAA 22nd Aerospace Sciences Meeting, Reno, NV, January 1984.
111. "Molecular Mixing in a Turbulent Flow: Some Fundamental Considerations," Sandia Laboratories, March 1984.
112. "Molecular Mixing in a Turbulent Flow: Some Fundamental Considerations," Drexel University, Philadelphia, PA, March 1984.
113. "Flame Propagation Through Sprays," ARO Contractors' Meeting, Philadelphia, PA, March 1984.
114. "Fuel Droplet Vaporization and Spray Combustion," University of Naples, June 1984.
115. "Fuel Droplet Vaporization and Spray Combustion," Politecnico de Milano, June 1984.
116. "Molecular Mixing in a Turbulent Flow," Politecnico de Milano, June 1984.
117. "Molecular Mixing in a Turbulent Flow," UC Berkeley, July 1984.

118. "Spray Combustion Modelling," UC Berkeley, August 1984.
119. "Molecular Mixing in a Turbulent Flow," Sandia Laboratories, August 1984.
120. "Effect of Spray Combustion on Ramjet Instability," ONR Contractors' Meeting, Monterey, CA, October 1984.
121. "Spray Combustion Modelling," New York University, November 1984.
122. "Molecular Mixing in a Turbulent Flow," Princeton University, November 1984.
123. "The Effect of Droplet Spacing on Spray and Group Combustion," ASME Winter Annual Meeting, New Orleans, LA, December 1984.
124. "Spray Combustion Simulation," Jet Propulsion Laboratories, Pasadena, CA, April 1985.
125. "Spray Combustion Simulation," Institut National de Recherche en Informatique, Sophia-Antipolis, France, May 1985.
126. "A Numerical Technique for the Solution of a Vaporizing Fuel Droplet," 10th International Colloquium on Dynamics of Explosions and Reactive Systems, Berkeley, CA, August 1985.
127. "Acoustical and Vortical Interactions with Burning Sprays," ONR/NAVAIR Contractors' Meeting, Columbia, MD, October 1985.
128. "Enclosed Gas and Liquid with Nonuniform Heating from Above," NASA Lewis Research Center, Cleveland, OH, October 1985.
129. "Molecular Mixing in Turbulent Reacting Flow," Fall Technical Meeting, Eastern Section/Combustion Institute, Philadelphia, PA, November 1985.
130. "Transient Spray Combustion Computations," NASA/CHAM Meeting on the Thermofluid Analysis of the SSME Fuelside Preburner, George C. Marshall Space Flight Center, Huntsfield, AL, February 1986.
131. "Vaporization Ignition and Combustion of Two Parallel Droplet Streams," 6th Army Workshop on Combustion, Davis, CA, March 1986.
132. "Transient Spray Combustion Computations," Washington State University, Pullman, WA, May 1986.
133. "Spray Combustion as a Driving Mechanism for Ramjet Instability," US/French Ramjet Combustion Instability Workshop, Naval Weapons Center, China Lake, CA, April 1986.

134. "Axisymmetric, Transient Calculation for Two Vaporizing Fuel Droplets," Canadian and Western States Section/The Combustion Institute 1986 Spring Technical Meeting, Banff, Canada, April 1986.
135. "Fundamental Studies on Spray Combustion and Turbulent Combustion," 1986 AFOSR/ONR Contractors' Meeting on Combustion, Stanford, CA, June 1986.
136. "Heterogenous Combustion," a series of three lectures at Politecnico de Milano sponsored by NATO-AGARD, September 1986.
137. "Transient Spray Combustion Computations," First World Congress on Computational Mechanics, Austin, TX, September 1986.
138. "Transient Spray Computations," UC Irvine, October 1986.
139. "Spray Combustion: A Driving Mechanism for Ramjet Combustion Instability," 23rd JANNAF Combustion Meeting, NASA/Langley Research Center, Hampton, VA, October 1986.
140. "Enclosed Gas and Liquid with Concentrated Heating Source Above in Reduced Gravity Field," University of Colorado, Boulder, CO, November 1986.
141. "An Integrated Approach to Spray Combustion Model Development," ASME 107th Winter Annual Meeting, Anaheim, CA, December 1986.
142. "Analysis of Combustion Instability in Liquid-Fueled Ramjets," SIAM Conference on Numerical Combustion, San Francisco, CA, March 1987.
143. "Theory of Combustion of Liquid Fuels," California State University, Fullerton, CA, February 1987.
144. "Transient Spray Computations," AFOSR, Washington, D.C., February 1987.
145. "Oscillations in a Liquid-Fueled Combustor," Joint Meeting of the French and Italian Sections of The Combustion Institute, Amalfi, Italy, June 1987.
146. "Fundamental Studies on Turbulent Combustion and Spray Combustion," 1987 AFOSR/ONR Contractors' Meeting on Combustion, University Park, PA, June 1987.
147. "Two-Dimensional Modeling of Flame Propagation in Fuel Stream Arrangements," 11th International Colloquium on Dynamics of Explosions and Reactive Systems, Warsaw, Poland, August 1987.

148. Workshop on Experimental, Analytical and Computational Methods in Liquid Fuel Sprays, a series of three lectures at the Institute of Aeronautics and Astronautics, National Cheng Kung University, Tainan, Taiwan, November 1987.
149. "Vaporization Response of Fuel Droplet in Oscillatory Field," ONR Workshop on Combustion Instabilities, UC Berkeley, November 1987.
150. "Study of Mixing and Reaction in the Field of a Vortex," Western States Section of The Combustion Institute, Honolulu, HI, November 1987.
151. "Droplet Vaporization Model for Spray Combustion Calculation," AIAA 26th Aerospace Sciences Meeting, Reno, NV, January 1988.
152. "Analysis of Molecular Mixing and Chemical Reaction in a Mixing Layer," AIAA 26th Aerospace Sciences Meeting, Reno, NV, January 1988.
153. "Mixing and Reaction in a Vortical Structure," UC San Diego, March 1988.
154. "Heat Transfer in a Two-Fluid System Under Reduced Gravity," Brown University, Providence, RI, March 1988.
155. "Review of Spray Combustion Theory: Remaining Challenges on the Droplet Scales," Workshop on Mass, Momentum, and Energy Exchange in Combusting Sprays: Droplet Studies, Sandia National Laboratories, Livermore, CA, March 1988.
156. "Fundamental Studies on Spray Combustion and Turbulent Combustion," 1988 AFOSR/ONR Contractors' Meeting on Combustion, California Institute of Technology, Pasadena, CA, June 1988.
157. "Liquid Pool Fires: Modeling," Microgravity Science and Applications Ground-Based Science Review, NASA Lewis Research Center, Cleveland, OH, July 1988.
158. "Spray Combustion Driving Mechanism for Ramjet Instability," 25th JANNAF Combustion Meeting, NASA/Marshall Space Flight Center, Huntsville, AL, October 1988.
159. "Molecular Mixing and Chemical Reaction in Vortical Structures," Sandia National Laboratory, December 1988.
160. "Review of Spray Combustion Theory," plenary lecture for the Joint Meeting of the British and French Sections of the Combustion Institute, Rouen, France, April 1989.
161. "Review of Theory of Mixing and Reaction Within A Vortical Structure," Third International Conference on Numerical Combustion, Antibes, France, May 1989.

162. "Mixing and Reaction Within a Vortical Structure," The University of Alabama in Huntsville, AL, May 1989.
163. "Fundamental Studies on Spray Combustion and Turbulent Combustion," 1989 AFOSR/ONR Contractors' Meeting on Combustion, Ann Arbor, MI, June 1989.
164. "Potential Combustion Instability Mechanisms," keynote address JANNAF Workshop on Liquid Rocket Engine Combustion Driven Instability Mechanisms, Monterey, CA, July 1989.
165. "Metal Slurry Droplet and Spray Combustion," ONR Propulsion Meeting on Energetic Materials Combustion, Combustion Diagnostics and Under Water Propulsion, Irvine, CA, October 1989.
166. "Fundamental Studies of Droplet Interactions in Dense Sprays," AFOSR Contractors' Meeting, Atlanta, GA, June 1990.
167. "Combustion Instability Computational Analysis," JANNAF Workshop on Numerical Methods in Combustion Instability, Orlando, FL, February 1990.
168. "Liquid-Waste Incineration in a Parallel-Stream Configuration: Parametric Study," The Twenty-Third International Symposium on Combustion, Orleans, France, July 1990.
169. "Metal Slurry Droplet and Spray Combustion," Third ONR Propulsion Meeting and Contractors' Review, Middletown, RI, October 1990.
170. "Heat and Mass Transfer in Liquid-Gas Spray Systems," ASME Winter Annual Meeting, Dallas, TX, November 1990.
171. "Interacting LOX Droplets in Dense Sprays," AFOSR Contractors' Meeting, Boulder, CO, June 1991.
172. "Axisymmetric Calculations of Three-Droplet Interactions," Fifth International ICLASS Conference on Liquid Atomization and Spray Systems, Gaithersburg, MD, July 1991.
173. "Vaporization and Combustion of Fine Metal Slurry Droplets," 13th International Colloquium on the Dynamics of Explosions and Reactive Systems, Nagoya, Japan, July 1991.
174. "Aerodynamic Interactions Amongst Neighboring Droplets," 4th International Symposium on Computational Fluid Dynamics, UC Davis, CA, September 1991.
175. "Computational Challenges in Spray Combustion," U.S.-Japan Heat Transfer Seminar, Oiso, Japan, October 1991.

176. "Metal Slurry Droplet Studies," Fourth ONR Propulsion Meeting and Contractors' Review, Memphis, TN, October 1991.
177. "Fuel Droplet Vaporization in an Acoustic Field," Fourth International Conference on Numerical Combustion, St. Petersburg, FL, December 1991.
178. "Numerical Simulation and Modelling of LOX Droplet Vaporization at Supercritical Conditions," 28th JANNAF Combustion Meeting, Brooks Air Force Base, San Antonio, TX, October 1991.
179. "Recent Advances in Fuel Droplet and Spray Theory," UC San Diego, January 1992.
180. "Recent Advances in Fuel Droplet and Spray Theory," University of Southern California, March 1992.
181. "Fundamentals of Spray Combustion," AFOSR Propulsion Contractors' Meeting, La Jolla, CA, June 1992.
182. "The Fluid Dynamics of Sprays," ASME Freeman Scholar Award Lecture, Anaheim, CA, November 1992.
183. "The Fluid Dynamics of Sprays," UC Los Angeles, April 1993.
184. "Energetic Fuel Droplet Gasification with Liquid-Phase Reaction," 6th ONR Propulsion Meeting, Boulder, CO, August-September 1993.
185. "Metal Slurry Droplet and Spray Combustion," 6th ONR Propulsion Meeting, Boulder, CO, August-September 1993.
186. "Droplet-Turbulence Interactions Over a Wide Spectral Range," AFOSR Propulsion Contractors' Meeting, Lake Tahoe, NV, June 1994.
187. "Energetic Fuel Droplet Gasification with Liquid-Phase Reaction," 7th ONR Propulsion Meeting, Buffalo, NY, August 1994.
188. "Fundamental Research in Support of Industrial Combustion Needs," DOE Workshop, Irvine, CA, August 1994.
189. "Metal Slurry Droplet and Spray Combustion," Zel'dovich Memorial International Conference on Combustion, Moscow Region, Russia, September 1994.
190. "Oxygen Droplet Vaporization," Bilateral U.S.-Russia Workshop on Combustion, Voronovo, Russia, September 1994.

191. "Nonlinear Capillary Kelvin/Helmholtz Waves on Thin Liquid Sheets," Princeton University, Princeton, NJ, March 1995.
192. "Nonlinear Capillary Kelvin/Helmholtz Waves on Thin Liquid Sheets," Department of Mathematics, UC Irvine, March 1995.
193. "Nonlinear Capillary Kelvin/Helmholtz Waves on Thin Liquid Sheets," Massachusetts Institute of Technology, Cambridge, MA, April 1995.
194. "Nonlinear Capillary Kelvin/Helmholtz Waves on Thin Liquid Sheets," 8th Annual Conference on Liquid Atomization and Spray Systems, Troy, MI, May 1995.
195. "Nonlinear Capillary Kelvin/Helmholtz Waves on Thin Liquid Sheets," University of California, Davis, CA, June 1995.
196. "Energetic Fuel Droplet Gasification with Liquid-Phase Reaction," 15th ICDERS, Boulder, CO, July/August 1995.
197. "Energetic Fuel Droplet Gasification with Liquid-Phase Reaction," 8th ONR Contractors' Meeting, San Diego, CA, October 1995.
198. "Turbine Burners," 8th ONR Contractors' Meeting, San Diego, CA, October 1995.
199. "Nonlinear Capillary Kelvin/Helmholtz Waves on Thin Liquid Sheets," University of Illinois at Chicago, Chicago, IL, November 1995.
200. "Nonlinear Capillary Kelvin/Helmholtz Waves on Thin Liquid Sheets," Carnegie Mellon University, Pittsburgh, PA, December 1995.
201. "Nonlinear Capillary Kelvin/Helmholtz Waves," Virginia Polytechnic Institute, Blacksburg, VA, April 1996.
202. "Nonlinear Capillary Kelvin/Helmholtz Waves," University of California, San Diego, La Jolla, CA, May 1996.
203. "Nonlinear Travelling Wave Distortion of a Thin Liquid Sheet," 9th Annual Conference on Liquid Atomization and Spray Systems, San Francisco, CA, May 1996.
204. "Nonlinear Distortion and Disintegration of Liquid Sheets for Pressure Atomization System," AFOSR/ARO Contractors' Meeting, Virginia Beach, VA, June 1996.
205. "Opposed-Flow Flame Spread Across n-Propanol Pools," the Twenty-Sixth International Symposium on Combustion, Naples, Italy, July/August 1996.

206. "Energetic Fuel Droplet Oxidation with Liquid-Phase Decomposition," 9th ONR Propulsion Meeting, Alexandria, VA, September 1996.
207. "Fundamentals of Fuel Ignition and Flammability," National Research Council Workshop on Aviation Fuels with Improved Fire Safety, Washington, D.C., November 1996.
208. "Droplet and Spray Studies," Brigham Young University, Provo, Utah, February 1997.
209. "Symmetric Distortion of a Thin Liquid Sheet with Infinite Length," ILASS Americas '97 Meeting, Ontario, Canada, May 1997.
210. "Symmetric Distortion of a Thin Liquid Sheet with Semi-infinite Length," ILASS Americas '97 Meeting, Ontario, Canada, May 1997.
211. "Three-Dimensional Nonlinear Temporal Stability of an Infinitely Long Thin Liquid Sheet," ILASS Americas '97 Meeting, Ontario, Canada, May 1997.
212. "Microgravity Combustion Research Opportunities," Gordon Research Conference on "Gravitational Effects in Physico-Chemical Systems," Henniker, NH, June 29-July 4, 1997.
213. "Axisymmetric Flame Spread Over Alcohol Pools," 16th International Colloquium on the Dynamics of Explosions and Reactive Systems, Cracow, Poland, August 1997.
214. "Nonlinear Distortion and Disintegration of Injected Liquid Sheets," University of Illinois, Urbana, Illinois, November 1997.
215. "Nonlinear Distortion and Disintegration of Injected Liquid Sheets," Stanford University, Stanford, CA, February 1998
216. "Unsteady Flame Propagation Beyond Steady Flammability Limits," 7th International Conference on Numerical Research, York, UK, March/April 1998.
217. "Nonlinear Distortion of Infinitely Long Thin Planar and Annular Liquid Sheets," ILASS Americas '98 Meeting, Sacramento, CA, May 1998.
218. "Nonlinear Capillary Waves on a Liquid Stream" United Technologies Research Center, September 1998.
219. "Opposed-Flow Flame Spread Across Propanol Pools: Effect of Liquid Fuel Depth," Joint Meeting of the US Sections of The Combustion Institute, Washington, March, 1999.

220. "Turbine Burners," Wright-Patterson Air Force Base, Aeronautical Research Labs, March 1999.
221. "Three-Dimensional Anti-symmetric Distortion of Modulated Semi-infinite Thin Liquid Sheets," ILASS Americas '99 Meeting, Indianapolis, IN, May 1999.
222. "Three-dimensional Symmetric Distortion of Modulated Semi-infinite Thin Liquid Sheets," ILASS Americas '99 Meeting, Indianapolis, IN, May 1999.
223. "Axisymmetric Distortion of Thin Annular Liquid Sheets," ILASS Americas '99 Meeting, Indianapolis, IN, May 1999.
224. "Flame Spread Across Liquids: Numerical Modelling," Fifth International Microgravity Combustion Workshop, Cleveland, OH, May 1999.
225. "Review of Theory of Distortion and Disintegration of Liquid Streams," 30th AIAA Fluid Dynamics Conference, Norfolk, VA, June 1999.
226. "Nonlinear Distortion and Disintegration of Conical Liquid Sheets at High Pressure" ARO/AFOSR Contractors' Meeting, Santa Fe, NM, June 2000.
227. "Comments on Energy Conservation in Liquid-Stream Disintegration," ICLASS 2000, Pasadena, CA July 2000.
228. "Conical and Annular Free Liquid Film Instabilities," Plenary Lecture, ILASS – Europe, Darmstadt, Germany, September 11, 2000.
229. "Opportunities and Challenges of Turbine Burners," Seminar, University of Aachen, Germany, September 14, 2000.
230. "Liquid Film Disintegration Due to Gas Jet Impact," American Physical Society Fluid Dynamics Meeting, Washington, D.C., November 2000.
231. "Opportunities and Challenges of Turbine Burners," Plenary Lecture, 41st Israel Annual Conference on Aerospace Sciences, Haifa, February 22, 2001.
232. "Free Planar Liquid Films Impacted by Gas Jets," ILASS 2001, Dearborn, Michigan, March 26, 2001.
233. "Three-Dimensional Ignition and Flame Propagation Above Liquid Fuel Pools: Computational Analysis," Sixth International Microgravity Combustion Workshop, Cleveland, Ohio, May 22, 2001.
234. "Opportunities and Challenges for Turbine Burners" invited talk ARO/AFOSR Contractors' Meeting, Los Angeles, CA, June 2001.

235. "Three-dimensional Ignition and Flame Propagation Above Liquid Fuel Pools: Computational Analysis," 18th ICDERS, Seattle, WA, July 29- Aug 3, 2001.
236. "Proposal for LPT Module Analysis," seminar, Lam Research, Fremont, CA, Aug 20, 2001.
237. "Miniature Combustor with Liquid-Fuel Film," Western States Section/Combustion Institute Fall Meeting, Salt Lake City UT, October 2001.
238. "Analysis of Miniature Liquid-Film Combustor," Eastern States Section Combustion Institute Fall Meeting, Hilton Head, SC, December 2001.
239. "Dynamic Straining of Viscous Liquid Film," APS Fluid Dynamics Meeting, San Diego, CA, November 2001.
240. "Turbine Burners: Ignition and Flame-Holding in High Acceleration Flows," Plenary Lecture, Western States Section/Combustion Institute Spring Meeting, San Diego, CA, March 2002.
241. "Combustion: A Complex Science and An Ancient But Immature Technology," UCI School of Engineering Distinguished Lecture, June 2002.
242. "Nonlinear Distortion and Disintegration of Conical Liquid Sheets at High Pressure," ARO/AFOSR Contractors Meeting, Dayton, OH, June 2002.
243. "A General Super-Scalar for the Combustion of Liquid Fuels," 29th International Symposium on Combustion, Sapporo, Japan, July 2002.
244. "New Concepts in Combustion Technology," San Diego State University, November 2002.
245. "Linearized Analysis of Liquid Film Combustor" 3rd Joint Meeting of the US Sections of the Combustion Institute, Chicago, March 2003.
246. "Current Status of Spray Combustion Modelling" Invited Paper, Joint Propulsion Conference, Huntsville Alabama, July 2003.
247. "Theoretical Foundations for the Analysis of Laminar and Turbulent Spray Flows," University of Pittsburgh, October 2003.
248. "Theoretical Foundations for the Analysis of Laminar and Turbulent Spray Flows" Western States Section/Combustion Institute Fall Meeting, UCLA, October 2003.
249. "Theoretical Foundations for the Analysis of Laminar and Turbulent Spray Flows" Georgia Institute of Technology, November 2003.

250. "Numerical Simulation of an Accelerating Reacting Mixing Layer in Transition," APS Fluid Dynamics Meeting, East Rutherford, New Jersey, November 2003.
251. "Linearized Analysis of Liquid-Film Combustor," Society of Industrial and Applied Mathematics Numerical Combustion Meeting, Sedona, AZ, May, 2004.
252. "Turbine Burners: Mixing, Ignition, and Flame-Holding in High-Acceleration Flows," Mechanical and Aerospace Engineering Dept. Seminar, Princeton University, October 1, 2004
253. "Transient Vaporization and Burning in Dense Droplet Arrays," Joint Meeting of the US Sections of the Combustion Institute, Philadelphia, March 2005.
254. "Combustion: A Complex Science and An Ancient But Immature Technology," Chinese Academy of Sciences: Institute of Mechanics, Beijing, April, 2005
255. "Turbine Burners: Mixing, Ignition, and Flame-Holding in High-Acceleration Flows," Beijing University of Aeronautics and Astronautics, Beijing, April, 2005.
256. "Turbine Burners: Mixing, Ignition, and Flame-Holding in High-Acceleration Flows," Nanjing University of Aeronautics and Astronautics, Nanjing, April, 2005.
257. "Combustion: A Complex Science and An Ancient But Immature Technology," Northwestern Polytechnic University, Xian, April, 2005.
258. "Combustion: A Complex Science and An Ancient But Immature Technology," Dean's Distinguished Lecture, UC Davis, May, 2005.
259. "A Generalized Analysis for Dense Sprays," UC Davis, Mechanical and Aerospace Engineering Dept. Seminar, May, 2005.
260. "A Generalized Analysis for Dense Sprays," ILASS 2005, Irvine, CA, May, 2005.
261. "Computations for Liquid-fuel Combustion: Sprays, Pools, and Films," Plenary Lecture, European Community on Computational Methods in Applied Sciences Conference on Computational Combustion, Lisbon, June 2005.
262. "Liquid Fuel Burning with Non-unitary Lewis Number," Western States Section/Combustion Institute Fall Meeting, Stanford University, October 2005.
263. "Recent Advances in Spray Combustion Theory," Aerospace Sciences Meeting, Reno, NV, January 2006.
264. "Break-up of Liquid Streams at High Pressure," AFOSR/ARO Contractors' Meeting, Arlington, VA, June 2006.

265. "Turbine-Burner Technology," Siemens Combustion Strategy Workshop, Daytona Beach, FL, October 30-November 1, 2006.

266. "Instabilities in a Turning Reacting Mixing Layer Undergoing Transition," APS Fluid Dynamics Meeting, Tampa, Florida, November 2006.

267. "Theoretical Issues in Droplet Array Vaporization and Burning," 5th US Combustion Meeting, UC San Diego, March 25-28, 2007.

268. "Advances in the Theory of Liquid-Fuel Burning," First DusiBerre Lecture, Pennsylvania State University, April 10, 2007.

269. "Breakup of Liquid Streams at High Pressures," AFOSR/ ARO Contractors Meeting, June 2007.

270. "Turbine Burners: Turbulent Combustion of Liquid Fuels," AFOSR/ ARO Contractors Meeting, June 2007.

271. "Recent Theoretical Advances for Liquid-fuel Atomization and Burning," Plenary Lecture, Seventh International Symposium on Special Topics in Chemical Propulsion: Advancements in Energetic Materials & Chemical Propulsion, Kyoto, Japan, September, 2007.

272. "Recent Advances in Selected Combustion Processes," University of Connecticut, September 28, 2007.

273. "Recent Advances in Selected Combustion Processes," Rensselaer Polytechnic Institute, December, 2007.

274. "Turbine-burner Research," presented at Panel Session on "Advanced Compact Combustor Technologies," 2008 AIAA Aerospace Sciences Meeting, Reno, NV.

275. "Turbine Burners: Turbulent Combustion of Liquid Fuels," AFOSR/ ARO Contractors Meeting, June 2008.

PUBLIC RELATION SPEECHES:

1. "Interaction Between Engineering Education and Research," Image Engineering Conference, January 1985.
2. "Industry-Academia Cooperation," American Electronics Association, April 1985.
3. "Industry-Academia Cooperation," Engineering Affiliates Annual Dinner, May 1985.
4. "Industry-Academia Cooperation," Biotechnology Conference, May 1985.

5. "Industry-Academia Cooperation," Irvine Company Sponsored Dinner, June 1985.
6. "Industry-Academia Cooperation," Pacific Club, March 1986.
7. "Industry-Academia Cooperation," UCI Chief Executive Roundtable Inaugural Meeting, April 1986.
8. "Progress at the UCI School of Engineering," Engineering Affiliates Annual Dinner, May 1986.
9. Comments at Dedication of ICS/Engineering Research Facility Building, November 5, 1986.
10. "Progress at UCI School of Engineering," Engineering Affiliates Dinner Meeting, November 13, 1986.
11. Welcome address at the workshop on "Frontiers of Intelligent Systems Colloquium Program," UC Irvine, November 14, 1986.
12. Engineering Alumni Address, "Progress and Plans of the UCI School of Engineering," December 1986.
13. "Issues and Challenges Before an Engineering School-Special Relations with Industry," Parker-Hannifin, Irvine, CA, January 1988.
14. Rensselaer Alumni Address, "Progress and Plans of the UCI School of Engineering," February 1988.
15. "An Overview of Engineering Research at UCI," Annual Review of Research Conference, Department of Electrical Engineering, UCI, February 1988.
16. Comments at Engineering Center Groundbreaking Ceremony, UCI, March 1988.
17. Comments at Rockwell Engineering Center and McDonnell Douglas Engineering Auditorium Dedication, UCI, February 1990.
18. Comments at Engineering Unit II Groundbreaking Ceremony, UCI, May 1992.
19. "State of the School of Engineering," Engineering Corporate Affiliates Recognition Dinner, UCI, May 1992.
20. "Overview of Organization, Programs and Goals," Chief Executive Engineering Advisory Meeting, UCI, December 1992.

21. "New Initiatives in the School of Engineering," Engineering Corporate Affiliates Meeting, UCI, March 1993.
22. "Strategic Issues Before the UCI School of Engineering," IEEE Los Angeles Joint Chapter of Engineering Management, Education & Professional Communication Societies, April 1993.
23. "Growth Initiatives at the School of Engineering," Engineering Corporate Affiliates Meeting, UCI, June 1993.
24. "Achievements and Remaining Challenges," Dedication Ceremony for the Engineering Gateway Building, UCI, October 1994.
25. "Spray Research Center," Engineering Corporate Affiliates Meeting, July 9, 1997.
26. "Smart Spray Systems," Engineering Corporate Affiliates Board Meeting, May, 1999.
27. "Internal Combustion Engines," presentation at Direct Propulsion Devices, Inc. Shareholders Meeting, East Wenatchee, WA, April 2002.