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diMarzo, Marino

Professor
Department of Mechanical Engineering
Department of Fire Protection Engineering
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Research Interests

- Fire protection agents
- Fire sprinklers
- Large-scale test instrumentation and data analysis
- Nuclear reactor safety thermal hydraulics

Background

Dr. diMarzo's expertise covers several areas of fire, heat transfer, multi-phase flow, and nuclear safety. He has had extensive collaboration with the Building and Fire Research Laboratory of the U.S. National Institutes of Standards and Technology, and is consulting for the U.S. Nuclear Regulatory Commission. Dr. di Marzo works with undergraduates and graduated students on their design and research projects.

Education

Ph.D., Catholic University of America, 1982

Honors and Awards

- Fellow of the American Institute of Chemical Engineers (AIChE)
- Fellow of the American Society of Mechanical Engineers
- Honorary Member of the Unione Italiana di Thermo-Fluido-Dinamica (UIT)
- Special Act Award of the U.S. Nuclear Regulatory Commission

Professional Memberships and Service

- U.S. Delegate to the International Heat Transfer Assembly
- Program chair, 1999 National Heat Transfer Conference
- Chair, Heat Transfer and Energy Division, American Institute of Chemical Engineers
- Associate Editor, International Journal of Heat and Technology
- Reviewer for Journal of Heat Transfer, International Journal of Heat and Mass Transfer, Nuclear Engineering and Design
- DOE Nuclear Energy Research Initiative
- DOD Next Generation Fire Suppression Technology Program

Selected Publications

2004

di Marzo, M., A.W. Marshall, "Modeling Aspects of Sprinkler Spray Dynamics in Fire," *Transactions of the Institution of Chemical Engineers*, Part B, Vol. 82, pp. 97-104, 2004.

Ruffino, P., M. di Marzo, "The Simulation of Fire Sprinklers Thermal Response in Presence of Water Droplets," *Fire Safety Journal*, Vol. 39, pp. 721-736, 2004.

2003

Ruffino, P., M. di Marzo, "Temperature And Volumetric Fraction Measurements In A Hot Gas Laden With Water Droplets," *Journal of Heat Transfer,* Vol. 125, pp. 356-364, 2003.

Ruffino, P., M. di Marzo, "The Effect of Evaporative Cooling on the Activation Time of Fire Sprinklers, *Fire Safety Science*, D.D. Evans ed., pp. 481-492, 2003.

2002

Quintiere, J.G., M di Marzo, R. Becker, "A Suggested Cause of Fire-Induced Collapse of the World Trade Towers," *Fire Safety Journal*, Vol. 37, pp. 707-716, 2002.

2001

di Marzo, M., "A Simplified Model of the BWR Depressurization Transient," *Nuclear Engineering and Design*, Vol. 205, pp. 107-114, 2001.

Guam, Y., M. Modarres, M. di Marzo, and D. Bessette, "A Method of Integrated Behavior Logic Modeling with Thermal Hydraulic—Probabilistic Assessment Screening and its Application to Identifying AP600 Accidental Scenarios," *Nuclear Technology*, Vol. 133, No. 3, pp. 269-289, 2001.

Related News

New Department Chairs Named
Balakumar Balachandran, James Milke picked to lead mechanical engineering, fire protection engineering. May 3, 2011

Department Well-Represented at OTC Invention Awards
Professors Baz & McCluskey earn top recognition. April 26, 2007