



## CONTACT INFORMATION

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FM Global  
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## EDUCATION

University of Maryland – College Park, MD  
Doctor of Philosophy, Mechanical Engineering, 2010  
Advisor: Prof. André Marshall

University of Maryland – College Park, MD  
Master of Science, Fire Protection Engineering, 2007  
Advisor: Prof. André Marshall

University of Science and Technology of China, Hefei, China,  
Bachelor of Science, Fire Safety Engineering, 2005

## TECHNICAL EXPERIENCE

Lead Research Scientist, FM Global, June 2012 to present

- FireFOAM modeling and development
- Flame extinction modeling
- Water mist suppression modeling
- Roll-paper fire growth modeling
- Fire growth and suppression modeling of rack storage commodities
- PMMA pyrolysis modeling
- Wall fire modeling

Postdoctoral research, University of Maryland – College park, 2011-2012

- Fire modeling with FireFOAM
- Spray characterization

## PBULICATION

Ning Ren, Yi Wang, Sébastien Vilfayeau and Arnaud Trouvé, “Large eddy simulation of turbulent vertical wall fires supplied with gaseous fuel through porous burners”, *Combustion and Flame*, Vol. 169, pp. 194-208, 2016.

Ning Ren, André W. Marshall, “Characterizing the initial spray from large Weber number impinging jets”, *International Journal of Multiphase Flow*, Vol. 58, pp. 205-213, 2014.

Ning Ren, Howard R. Baum and André W. Marshall, “A Comprehensive Methodology for Characterizing Sprinkler Sprays”, *Proceedings of the 33rd International Symposium on Combustion*, Beijing, Aug. 2010.

S. Vilfayeau, N. Ren, Y. Wang and A. Trouvé, “Numerical Simulation of Under-Ventilated Liquid-Fueled Compartment Fires with Flame Extinction and Thermally-Driven Fuel Evaporation”, *Proceedings of the 35th International Symposium on Combustion*, San Francisco, Aug. 2014.