

# MATTHEW W. LIBERATORE

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## PROFESSIONAL EXPERIENCE

2017- University of Toledo, Professor of Chemical Engineering (tenured)  
2015-2017 University of Toledo, Associate Professor of Chemical Engineering (tenured)  
2015- Lead Author, zyBooks  
2014-2015 Read Swipe Solve LLC, Founder  
2011-2015 Colorado School of Mines, Associate Professor of Chemical Engineering (tenured)  
2005-2011 Colorado School of Mines, Assistant Professor of Chemical Engineering  
2004-2005 University of Delaware, Postdoctoral Fellow with N.J. Wagner and E.W. Kaler  
1999-2003 University of Illinois at Urbana-Champaign, Research Assistant with A.J. McHugh and T.J. Hanratty  
1997-1999 Argonne National Laboratory, Engineering Assistant and Engineering Intern

## EDUCATION

2003 Ph.D., Chemical Engineering, University of Illinois at Urbana-Champaign  
2001 M.S., Chemical Engineering, University of Illinois at Urbana-Champaign  
1999 B.S., Chemical Engineering, University of Illinois at Chicago (with honors)

## HONORS

Alumni Teaching Award from the Colorado School of Mines 2014-2015  
Innovation in Chemical Engineering Education Award from the AIChE 2014  
Education Division  
Rudolf Hering Medal from ASCE for the outstanding paper in the area of 2014  
environmental engineering (with J. Silva and J. McCray)  
Raymond W. Fahien Award from the ASEE Chemical Engineering Division for 2013  
contributions to chemical engineering education  
Professor of the Year, Chemical and Biological Engineering Department as voted 2011-2012  
by graduating seniors  
Alfred E. Jenni Faculty Fellowship for institution-wide contributions in teaching 2010-2011  
effectiveness and educational scholarship  
Mentoring and Travel Grant for New Attendees, ASEE Chemical Engineering 2011  
Division

## Honors for Research Advisees

Outstanding Student Poster Award (Ye Liu) at the Gordon Research Conference 2014  
on Fuel Cells

Best Overall Presentation Award (Tara Pandey) at the Conference on Earth and Energy	2014
Best Paper, Undergraduate Research Paper Competition (Marc Donnelly) at the AIChE Rocky Mountain Regional Meeting	2013
Best Poster Award, Chemical & Biological Engineering (Melissa Vandiver) at the Conference on Earth and Energy Research	2013
Poster Award, 2 <sup>nd</sup> Place Student Competition (Melissa Vandiver), 222 <sup>nd</sup> Electrochemical Society Meeting	2012
Best Poster Award, Chemical & Biological Engineering (Melissa Vandiver) at the Conference on Earth and Energy Research	2012
Poster Award, 2 <sup>nd</sup> Place Student Competition (Melissa Vandiver), 220 <sup>th</sup> Electrochemical Society Meeting	2011
Poster Award, 2 <sup>nd</sup> Place student competition (Eric B. Webb), Society of Rheology 82 <sup>st</sup> Annual Meeting	2010
Poster Award, 2 <sup>nd</sup> Place student competition (Patrick Rensing), Society of Rheology 81 <sup>st</sup> Annual Meeting	2009
Best Poster Award (Nicholas Wyatt), CSM Graduate Research Fair	2008

## **TEACHING**

### **Courses Taught**

Graduate Thermodynamics	Fall 2005, Fall 2006, Fall 2007
Heat Transfer	Spring 2007, Spring 2008
Introduction to Engineering Thermodynamics	Spring 2008, Fall 2008, Fall 2009, Fall 2013, Fall 2014
Unit Operations Laboratory	Summer 2008
Material and Energy Balances	Spring 2009, Spring 2010, Spring 2011, Spring 2012, Spring 2014, Spring 2015, Spring 2016, Spring 2017
Transport Phenomena	Fall 2011
Polymer and Complex Fluids Colloquium	Spring 2011, Fall 2011, Spring 2012, Fall 2013, Spring 2014
Scattering Methods (online/in person hybrid)	Fall 2011
Scattering in Soft Materials (online/in person hybrid)	Fall 2013
Graduate Transport Phenomena (Fluid mechanics)	Fall 2015, Fall 2016, Fall 2017

## **RESEARCH AND SCHOLARSHIP**

Books -2

Patents – 3

Copyrights – 1

Articles (peer reviewed) - 77

Articles (non-peer reviewed) - 8

Conference Proceedings - 11

A full listing is available at:

<http://www.eng.utoledo.edu/~mliberat/publications.html>

Invited Presentations -47  
Presentations -127

Research Supervision

Post-doctoral – 5 former

Doctoral – 1 current, 9 completed

Masters – 1 current, 4 completed

Undergraduate – 47 students.

Includes 20 women and 8 from underrepresented groups or U.S. military veterans

K-12 Science/Math Teachers – 3 teachers doing summer research

Research Funding

Over \$4.7M total awards as PI, over \$1.1M co-PI share, over \$12M total awards as PI or co-PI.

Sources include NSF, DOE, Army, ACS-PRF, and industry.

**SERVICE**

2<sup>nd</sup> Vice Chair, 1<sup>st</sup> Vice Chair, Chair of AIChE Education Division 2014-2019

Local arrangements chair, Society of Rheology Annual Meeting in Denver October 2017

Full CV available upon request.