ANDREA PROSPERETTI
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Professional Preparation

Laurea (summa cum laude), Physics, Universita di Milano , Italy, 1968
M.S., Engineering Science, California Institute of Technology, 1972
Ph.D., Engineering Science, California Institute of Technology, 1974
Post-doctoral Institution: California Institute of Technology, 1974-1975

Professional Appointments

2016 -	Distinguished Professor, Department of Mechanical Engineering, University of Houston
2016 -	Director of the Center for Advanced Computing and Data Systems, University of Houston
2016 -	Homewood Professor, Johns Hopkins University
1999 -	Berkhoff Professor of Applied Science, University of Twente (The Netherlands)
1994 - 2016	Charles A. Miller Jr. Distinguished Professor of Mechanical Engineering, Johns Hopkins University
1988 - 1991	Professor and Chairman, Dept. of Mechanical Engineering, Johns Hopkins University
1985 - 2016	Professor of Mechanical Engineering, Johns Hopkins University
1976 - 1985	Associate Professor of Physics, Universit´a di Milano and Politecnico di Milano

Honors

Ted Belytschko Applied Mechanics Division Award, ASME, 2016
Panetti-Ferrari Prize for Applied Mechanics, Academy of Sciences of Torino, Italy, 2014
Elected to the US National Academy of Engineering 2012
Silver Medal for Physical Acoustics, Acoustical Society of America
Fluids Engineering Award, American Society of Mechanical Engineers 2005
Senior Award, International Conference on Multiphase Flow 2004
Otto Laporte Award, American Physical Society Division of Fluid Dynamics 2002
Lifetime Achievement Award, the Japanese Society of Multiphase Flow, 2001
Foreign Member, Royal Netherlands Academy of Arts andS ciences, 2000
Fellow of the American Physical Society, the Acoustical Society of America and ASME

Scientific Publications

Author of 1 textbook (2011); co-author of 1 textbook (2009); h-index 48, citations (w/o self-citations) 7,734, bibliographical items 243 (Web of Science)

Five Publications Closely Related to the Present Project:

1. Chu, S. and Prosperetti, A. History effects on the gas exchange between a bubble and a liquid, Physical Review Fluids, vol 1, 064202, 2016
2. Chu, S. and Prosperetti, A. Dissolution and growth of a multicomponent drop in an immiscible liquid, J. Fluid Mech., vol 798, 787--811, 2016
3. Tseng, Y.-H. and Prosperetti, A. Local interfacial stability near a zero-vorticity point, J. Fluid Mech., vol 776, 5--36, 2015
4. Ray, B. and Prosperetti, A., On skirted drops in an immiscible liquid, Chem. Eng. Sci., vol 108, 213--222, 2014
5. Sierakowski, A. and Prosperetti, A. Resolved-particle simulation by the Physalis method: Enhancements and new capabilities, J. Comput. Phys. 309, 164–184, 2016

Five Other Representative Publications:

1. Prosperetti, Advanced Mathematics for Applications, 700-pp. textbook, Cambridge University Press, 2011
2. Computational Methods in Multiphase Flow, textbook edited by A. Prosperetti and G. Tryggvason, Cambridge University Press, revised edition 2009
3. Chu, S. and Prosperetti, A. On flux terms in volume averaging, Int. J. Multiphase Flow, vol 80, 176–180, 2016

4. Prosperetti, A. Vapor Bubbles, Annual Review of Fluid Mechanics, vol 49, 2017; available on line July 22, 2016
5. Zhang, Y., Zhou, G. and Prosperetti, A. Bubbles as a means for the de-aeration of water bodies, Journal of Environmental Engineering, in press

Synergistic activities
Editor in Chief, International Journal of Multiphase Flow, 2008-
Associate Editor for Letters, The Physics of Fluids, 1999-2007
Lead organizer, APS Division of Fluid Dynamics Annual Meeting, Baltimore, November 2011
Mechanical Engineering Program Chair, Engineering for Professionals Program, Johns Hopkins University, 2011-2016

Collaborators & Other Affiliations

Senior collaborators in the past 48 months:
S. Balachandar, University of Florida; Gert Wim Bruggert, University of Twente, Holland; Francesco Fornarelli, University of Bari, Italy; Valeria Garbin, Imperial College, London UK; Henk J.G.E. Gardeniers, University of Twente, Holland; Joe Katz, Johns Hopkins University; Jungho Kim, University of Maryland; Robert F. Kunz, Penn State University; Henry Lhuissier, University of Aix-Marseille, Marseille, France; Qianlong Liu, Arizona Engineering Science, Tucson; Detlef Lohse, University of Twente, Holland; Paolo di Marco, University of Pisa, Italy; Devaraj van der Meer, University of Twente, Holland; Paolo Oresta, University of Bari, Italy; Stephane Popinet, Universit´e Pierre et Marie Curie, Sorbonne Universit´es, Paris, France; Frederic Risso, Institut de M´ecanique des Fluides, Toulouse, France; Ashok Sangani, Syracuse University; Minori Shirota, Hirosaki University, Japan; Richard Stevens, University of Twente, Holland; Chao Sun, Tsinghua University, Beijing, China; Akio TomiyamaKobe University, Japan; Tuan Tran, Nanyang Technol University, Singapore; Gretar Tryggvason, University of Notre Dame; Michiel Versluis, University of Twente, Holland; Roberto Verzicco, University of Rome, Italy; Leen van Wijngaarden, University of Twente, Holland; H. Zandvliet, University of Twente, Holland; A.G. Zijlstra, University of Twente, Holland

Post-doctoral collaborators within the last 5 years:
David Fernandez Rivas, University of Twente, Holland; Kristjan Gudmundsson, formerly at University of Twente, Holland; Henry Lhuissier, University of Aix-Marseille, Marseille, France; Bahni Ray, City College, New York; Laura Schmidt, formerly at University of Twente, Holland; Minori Shirota, Hirosaki University, Japan; Richard Stevens, University of Twente, Holland; Yoshi Tagawa, Tokyo University of Agriculture and Technology, Japan; Tuan Tran, Nanyang Technol University, Singapore; Howard Yu-Hao Tseng, National University of Kaohsiung, Taiwan R.O.C.

Students/former students collaborators within the last 5 years:
Edip Can, Saxion Institute, Enschede, The Netherlands; Shigan Chu, Johns Hopkins University; Oscar Enriquez, Complutense University, Madrid, Spain; T.C. Foertsch, formerly at the University of Twente, The Netherlands; Johanna Gelderblom, University of Twente, The Netherlands; A. van Houselt, formerly at the University of Twente, The Netherlands; Christian Hummelink, formerly at the University of Twente, The Netherlands; Raja Lakkaraju, International Center for Theoretical Physics, Bangalore, India; Michiel van Limbeek, University of Twente, The Netherlands; Yuan Lu, formerly at the Johns Hopkins University; Hrudia Nair, formerly at the University of Twente, The Netherlands; N. Oudalov, formerly at the University of Twente, The Netherlands; Ivo Peters, formerly at the University of Twente, The Netherlands; Adam Sierakowski, Johns Hopkins University; Hendrik Staat, formerly at the University of Twente, The Netherlands; A. Susarray-Arce, formerly at the University of Twente, The Netherlands; Claas Visser, formerly at the University of Twente, The Netherlands; Yayun Wang, Johns Hopkins University; Sander Wildeman, University of Twente, The Netherlands; Daniel Willen, Johns Hopkins University; Ming Ming Zhang, formerly at the Johns Hopkins University

Thesis and post-doctoral advisor: Milton S. Plesset (deceased)

Total number of graduate students advised: 31 doctoral, 9 M.S.
Total number of post-doctoral fellows sponsored: 15
Currently advising 6 Mechanical Engineering doctoral students (1 female)