

Marc B. Parlange

School of Architecture, Civil and Environmental Engineering - ENAC
Ecole Polytechnique Fédérale de Lausanne - EPFL
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Higher Education

- Ph.D. 1990 Civil and Environmental Engineering, Cornell University, Ithaca, NY
Advisor, Wilfried Brutsaert
Dissertation, 'Regional scale land-atmosphere interaction over complex forest terrain'
- M.S. 1987 Agricultural Engineering, Cornell University, Ithaca, NY
Advisor, Tammo Steenhuis
Thesis, 'Water movement in a shallow hillslope with a fragipan horizon'
- B.S. 1984 Applied Mathematics, Griffith University, Brisbane, Australia

Professional Appointments

- 2004 - **Professor**, Ecole Polytechnique Fédérale de Lausanne, Switzerland
- 2008 - **Dean**, School of Architecture, Civil and Environmental Engineering
- 1996 - 2004 **Professor**, Johns Hopkins University, Baltimore, MD
- 2007 - **Adjunct Professor**, Johns Hopkins University
- 2001 - 2004 **Chair**, Department of Geography and Environmental Engineering
Center for Environmental and Applied Fluid Mechanics
- 1990 - 1996 **Assistant Professor** ('90-'93), **Associate Professor** ('93-'96), **Professor** ('96)
University of California, Davis, CA; Department of Land, Air and Water Resources
& Department of Biological & Agricultural Engineering
- 1984 - 1990 **Graduate Research Assistant**, Cornell University

Editorial Appointments

- 2005 – 2008 **Editor-in-Chief**, Water Resources Research
- 1997 – 2002 **Editor**, Advances in Water Resources
- 1993 – 1997 **Associate Editor**, Water Resources Research,
- 1994 – 1997 **Editorial Board**, Advances in Water Resources,

Research Interests

Hydrology and Fluid Mechanics in the Environment: Hydrometeorology; Water Resources; Atmospheric Boundary Layer; Evaporation; Turbulence; Large Eddy Simulation; Soil and snow physics; Alpine hydrology; Statistical downscaling and climate extremes; Wireless sensor network arrays; Lidar (Light detection and ranging)

Honors and Awards

- Dalton Medal, European Geosciences Union, 2006
- UCAR, Outstanding Publication Award, 2004
- Affiliate Scientist, National Center for Atmospheric Research, Boulder, 1998-2003
- Macelwane Medal, American Geophysical Union, 1997
- Fellow, American Geophysical Union, 1997
- Visiting Lecturer Award in Hydrology and Hydraulics, 1994
Civil Engineering Research Institute, Sapporo, Japan

Membership in Professional Societies

American Meteorological Society
American Geophysical Union (Fellow)
European Geosciences Union
American Society of Civil Engineers
American Association for the Advancement of Science

Edited Books:

Parlange, M.B. and J.W. Hopmans, 1999, 'Vadose Zone Hydrology: Cutting across disciplines', Oxford University Press, New York, pp. 451.
Miller, C.T., M.B. Parlange, and M. Hassanizadeh, 2003, '25 years of Advances in Water Resources', Elsevier Press, Amsterdam, pp. 548.

8 recent Journal Articles (of some 140):

Chamecki, M., R. Van Hout, C. Meneveau, and M.B. Parlange, 2007, Concentration profiles of particles settling in the neutral and stratified atmospheric boundary layer, *Boundary Layer Meteorology*, 125:25-38.

Chester, S., C. Meneveau and M.B. Parlange, 2007, Modeling turbulent flow over fractal trees with renormalized numerical simulation, *Journal of Computational Physics*, 225:427-448.

van Hout, R., W. Zhu, L. Luznik, J. Katz, J. Kleissl, and M.B. Parlange, 2007, PIV measurements in the atmospheric boundary layer within and above a mature corn canopy. Part I: Statistics and energy flux, *Journal of the Atmospheric Sciences*, 64(8): 2805-2824.

Higgins, C.W., C. Meneveau and M.B. Parlange, 2007, The effect of filter dimension on The components of the subgrid-scale stress and tensor alignments in the atmospheric Surface layer, *Journal of Atmospheric and Oceanic Technology*, 24(3), 360–375.

Bou-Zeid E, M.B. Parlange, and C. Meneveau C, 2007, On the parameterization of surface roughness at regional scales, *Journal of the Atmospheric Sciences*, 64(1):216–227.

Selker, J., N. van de Giesen, M. Westhoff, W. Luxemburg, and M.B. Parlange, 2006, Fiber optics opens window on stream dynamics, *Geophys. Res. Lett.*, 33, L24401, doi:10.1029/2006GL027979.

Park, S.S., J. Kleissl, D. Harrison, V. Kumar, N.P. Nair, M. Adam, J. Ondov, M. Parlange, 2006, Characteristics of PM_{2.5} episodes revealed by semi-continuous measurements at the Baltimore Supersite at Ponca St., *Aerosol Science and Technology*, 40(10):845 – 860.

Szilagyi, J., M.B. Parlange and G. Balint, 2006, Assessing stream-aquifer interactions through inverse modeling of flow routing, *Journal of Hydrology*, 327:208-218.