

## FOTIS SOTIROPOULOS

School of Civil and Environmental Engineering  
Georgia Institute of Technology, Atlanta GA 30332-0355

### EDUCATION:

Ph.D. in Aerospace Engineering and Engineering Mechanics, Univ. of Cincinnati 1991  
M.S. in Aerospace Engineering, Penn State University 1989  
B.S. in Mechanical Engineering, National Technical University, Athens, Greece 1986

### PROFESSIONAL EXPERIENCE:

2000–Present Associate Professor, Civil & Environmental Eng., Georgia Tech  
1995–2000 Assist. Professor, Civil & Environmental Eng., Georgia Tech  
1994–1995 Assist. Research Scient., Iowa Inst. Hydraulic Research, Univ. of Iowa  
1991–1994 Postdoct. Assoc., Iowa Inst. Hydraulic Research, Univ. of Iowa

### HONORS:

2002 - National Academy of Engineering 8th Ann. Symp. on Frontiers of Eng. Invited Participant.  
2001 - Advisor for Ph.D. thesis awarded the American Water Works Association *Academic Achievement Award*.  
1999 - NSF Faculty Early Career Development (CAREER) award.  
1991 - R.T. DAVIS award for *excellence in the field of Computational Mechanics*, U. of Cincinnati.

### JOURNAL EDITORIAL BOARDS:

Associate Editor, ASCE Journal of Hydraulic Engineering (2002-2005)

### GRADUATE AND POSTDOCTORAL ADVISING (in past 5 years):

Postdoctoral fellows: Y. Ventikos, S. C. Jones, J. Paik, A. Gilmanov; Ph.D. students: S. C. Jones, H. Tang, T. Lackey, L. Ge, C. Escauriaza, I. Boranzani; MS student: K. Stewart

### CURRENT RESEARCH SUPPORT:

National Institutes of Health, Department of Energy, Oak Ridge National Laboratory, Georgia Department of Transportation, American Water Works Association. PI and Co-PI in 5 grants totaling over 1.8 million (2000-2007).

### OTHER COLLABORATORS (in past 48 months):

I. Mezic, D. R. Webster, T. W. Sturm, A. Yoganathan, E. Balaras.

### SELECTED PUBLICATIONS:

1. “A General Reconstruction Algorithm for Simulating Flows with Complex 3D Immersed Boundaries on Cartesian Grids,” (with A. Gilmanov and E. Balaras) *Journal of Computational Physics* 191 **2**, 660-669 (2003).
2. “Experiments on Lagrangian Transport in Steady Vortex Breakdown Bubbles in a Confined Swirling Flow,” (with D.R. Webster and T.C. Lackey) *Journal of Fluid Mechanics* **466**, 215-248 (2002).
3. “Ergodic Theory and Experimental Visualization of Invariant Sets in Chaotically Advected Flows,” (with I. Mezic) *Physics of Fluids* 14 **7**, 2235-2243 (2002).
4. “Chaotic Advection in Stationary Vortex Breakdown Bubbles: Silnikov’s Chaos and the Devil’s Staircase,” (with Y. Ventikos and T.C. Lackey) *Journal of Fluid Mechanics* **444**, 257-297 (2001).
5. “The Three-Dimensional Structure of Confined Swirling Flows with Vortex Breakdown,” (with Y. Ventikos) *Journal of Fluid Mechanics* **426**, 155-175 (2001).