Michael S. Triantafyllou

William I. Koch Professor of Marine Technology
Professor of Mechanical and Ocean Engineering
Director, Center for Ocean Engineering

Room 5-226
Massachusetts Institute of Technology
77 Massachusetts Avenue
Cambridge MA 02139-4307
Phone: 617-253-4335
Email: mistetri@mit.edu

Curriculum Vitae

Administrative Contact:
Maria Riefstahl
Room 5-228
Phone: 617-253-4330
Email: maria@mit.edu

Education
ScD in Ocean Engineering, June 1979
Massachusetts Institute of Technology, Cambridge, Massachusetts
SM in Ocean Engineering and SM in Mechanical Engineering, February 1977
Massachusetts Institute of Technology, Cambridge, Massachusetts
Diploma in Naval Architecture & Marine Engineering, July 1974
National Technical University of Athens, Greece

MIT Service:
2005-present: Professor of Mechanical and Ocean Engineering; Director, Center for Ocean Engineering; Head, Area of Ocean Science & Engineering
1990-2005: Professor of Ocean Engineering; Director Towing tank
1986-1990: Associate Professor with tenure
1983-1986: Associate Professor, Doherty Professor of Ocean Utilization
1979-1983: Assistant Professor
1978-1979: Research Associate

Principal Publications (last three years):

1. F.S. Hover, O. Haugsdahl, & M.S. Triantafyllou, 2004, "Control of angle of attack profiles in flapping foil propulsion", Journal of Fluids and Structures, 19, 37-47.
2. M.S. Triantafyllou, A.H. Techet, & F.S. Hover, 2004, "Review of Experimental Work in Biomimetic Foils", J. Oceanic Engng. (IEEE), 29 (3), 585-594.
3. P. Blondeaux, F. Fornarelli, L. Guglielmini, M.S. Triantafyllou, & R. Verzicco, 2005, "Numerical experiments on flapping foils mimicking fish-like locomotion", Physics of Fluids, 17, 113601.
4. M.S. Triantafyllou, F.S. Hover, A.H. Techet, & D.K.P. Yue, 2005, "Review

of Hydrodynamic Scaling Laws in Aquatic Locomotion and Fish-Like Swimming", Applied Mechanics Reviews, 58, (4), 226-237.
5. F.S. Hover, & M.S. Triantafyllou, 2006, "Dynamic optimization using Hermite chaos", Automatica, 42, 789-795.
6. D.N. Beal, F.S. Hover, M.S. Triantafyllou, J.C. Liao, & G.V. Lauder, 2006, "Passive propulsion in vortex wakes", Journal of Fluid Mechanics, 549, 385-402.
7. G.V. Papaioannou, D.K.P. Yue, M.S. Triantafyllou, & G.E. Karniadakis, 2006, "Evidence of holes in the Arnold tongues of flow past two oscillating cylinders", Physical Review Letters, 96, 014501 (4 pp).
8. G.V. Papaioannou, Dick K.P. Yue, M.S. Triantafyllou, & G.E. Karniadakis, 2006, "Three-dimensionality effects on the flow around two tandem cylinders in the lower subcritical regime", Journal of Fluid Mechanics, (in press).
9. Q. Zhu, D. Yue, & M.S. Triantafyllou, 2006, "Direct numerical simulation of single-molecule DNA by cable dynamics", IEEE Journal MEMS, (to appear).

Scientific and Professional Societies
American Physical Society
Society of Naval Architects and Marine Engineers
International Society of Offshore Mechanics and Polar Engineers: Charter Member

Honors and Awards
Article on trout swimming in vortices also on cover of Science, Nov. 28, 2003.
RoboTuna on permanent exhibit at the Museum of Science, London (since 1998); prototype RoboTuna in Science Museum of Minnessota (2003-2004).
Smithsonian Magazine Article on Robotic Tuna (August 2000).
Highlight Paper of 1995 Scientific American.

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77 Massachusetts Avenue, Room 3-173 | Cambridge, Massachusetts 02139