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Jean-Jacques E. Slotine

Professor of Mechanical Engineering and Information Sciences
Professor of Brain and Cognitive Sciences
Director of the Nonlinear Systems Laboratory

Room 3-338
Massachusetts Institute of Technology
77 Massachusetts Avenue
Cambridge MA 02139-4307
Phone: 617-253-0490
Email: jjs@mit.edu
Web: http://web.mit.edu/nsl/www

Curriculum Vitae

Administrative Contact:
Deborah A. Alibrandi
Room 3-359
Phone: 617-253-2883
Email: deborah@mit.edu

Research Interests
Robotics; Nonlinear Control; Learning Systems

Education:
Ph.D., in Estimation and Control from the Department of Aeronautics and Astronautics, Massachusetts Institute of Technology, Cambridge, Massachusetts, May 1983
Ingenieur, Sup'Aero, France, 1981

MIT Service:
1984– 1989 Assistant Professor of Mechanical Engineering
1987– 1989 Doherty Professor in Ocean Utilization
1989– 1992 Associate Professor of Mechanical Engineering
1992– 1997 Associate Professor of Mechanical Engineering
and Information Sciences
1997– Present Professor of Mechanical Engineering
and Information Sciences
1997– Present Professor of Brain and Cognitive Sciences

Principal Publications in last five years:

1. Niemeyer, G., and Slotine, J.-J. E., "Internet-Based Teleoperation," Int. J. Robotics Research, 2001.
2. Slotine, J.-J. E., and Lohmiller, W., "Modularity, Evolution, and the Binding Problem: A View from Stability Theory," Neural Networks, 14(2), February 2001
3. Slotine, J.J.E., "La Robotique à l'Heure des Neurosciences, " La

Recherche, 350, February 2002.

4. Hahnloser, R.H., Seung, H.S., and Slotine, J.J.E., "Permitted and Forbidden Sets in Symmetric Threshold-Linear Networks," Neural Computation, 15, 2003.
5. Slotine, J.J.E., "Modular Stability Tools for Distributed Computation and Control," Int. J. Adaptive Control and Signal Processing, 17(6), 2003.
6. Zuo, L., and Slotine, J.J.E., "Robust Vibration Isolation via Frequency-Shaped Sliding Control and Modal Decomposition," Journal of Sound and Vibration, 2004.
7. Lloyd, S., Landahl, A., and Slotine J.J.E., "Universal Quantum Interfaces," Physical Review A, 69, 2004.
8. Niemeyer, G., and Slotine J.J.E., "Telemanipulation with Time Delays," International Journal of Robotics Research, 23(9), 2004.
9. Wang, W., and Slotine, J.J.E., "On Partial Contraction Analysis for Coupled Nonlinear Oscillators," Biological Cybernetics, 92(1), 2005.
10. Zuo, L., Slotine, J.J.E., and Nayfeh, S., "Model Reaching Adaptive Control for Vibration Isolation," I.E.E.E. Transactions on Control Systems Technology, 2005.
11. Richardson, A., Slotine, J.J.E., Bizzi, E., and Tresch, M., "Intrinsic Musculoskeletal Properties Stabilize Wiping Movements in the Spinalized Frog," Journal of Neuroscience, 25(12), 2005.
12. Lohmiller, W., and Slotine, J.J.E., "Contraction Analysis of Nonlinear Distributed Systems," International Journal of Control, 78(9), 2005.
13. Wang, W., and Slotine, J.J.E., "Fast Computation with Neural Oscillators," Neurocomputing, 63, 2005.
14. Zhao, Y., and Slotine, J.J.E., "Discrete Nonlinear Observers for Inertial Navigation," Systems and Control Letters, 54(6), 2005.
15. Wang, W., and Slotine, J.J.E., "Contraction Analysis of Time-Delayed Communications and Group Cooperation," I.E.E.E. Transactions on Automatic Control, 51(4), 2006.
16. Cheah, C.C., Liu, C., and Slotine, J.J.E., "Adaptive Tracking Control for Robots with Unknown Kinematic and Dynamic Properties," International Journal of Robotics Research, 25(3), 2006.

Scientific & Professional Societies:
I.E.E.E. Student Member, 1982; Member since 1983
Sigma Xi, Member since 1983
International Journal of Nonlinear Control, Editor, Dec. 1989 to Dec. 1994
I.E.E.E. Journal of Robotics and Automation, Technical Editor, Jan. 1988 to Dec. 1990
The Robotics Review, Associate Editor, Sept. 1987 to Sept. 1991
International Journal of Robotics and Automation , Associate Editor, April 1986 to Present
NeuroComputing, Associate Editor, January 1994 to Present
I.E.E.E. and I.F.A.C. International Conferences, Program Committee Member
I.E.E.E. Conference on Decision & Control, Organizer and Chairman of 25 sessions
I.E.E.E. Conference on Robotics & Automation
A.S.M.E. Winter Annual Meeting
American Control Conference

Honors & Awards:
- Best Paper Award for 1992, I.E.E.E. Transactions on Neural Networks: Sanner, R., and Slotine, J.-J. E., "Gaussian Networks for Direct Adaptive Control"
- Best Paper Award for 1995, Neurocomputing: Cannon, M., and Slotine, J.-J. E., "Space-Frequency Localized Basis Function Networks for Nonlinear

System Estimation and Control"

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Massachusetts Institute of Technology | Department of Mechanical Engineering
77 Massachusetts Avenue, Room 3-173 | Cambridge, Massachusetts 02139

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