

**RAJEEV RAJARAM**

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**EDUCATION**

- **Ph.D. Applied Mathematics**, Iowa State University, Ames, IA, July 2005
- **M.S. Applied Mathematics**, Iowa State University, Ames, IA, December 2003
- **M.S. Electrical Engineering**, Iowa State University, Ames, IA, August 2001
- **B.E. (Hons) Instrumentation Engineering**, B.I.T.S Pilani, India, August 1998

**PROFESSIONAL EXPERIENCE**

Assistant Professor of Mathematics, Kent State University - Ashtabula, *Fall 2008 – Present*

Assistant Professor of Mathematics, Shepherd University, *Fall 2005 – Summer 2008*

Teaching and Research Assistant, Department of Mathematics, Iowa State University, *2002-05*

Hardware Engineer, Agilent Technologies, Santa Rosa, CA, *2001*

Teaching and Research Assistant, Department of Electrical Engineering, Iowa State University, *1999-2001*

Intern, National Aeronautics Laboratories, Bangalore, India, *1998*

**PUBLICATIONS, PRESENTATIONS, AND CONFERENCE PROCEEDINGS**

**Articles Submitted**

**Vaidya, U., Rajaram, R., & Dasgupta, S.** *Actuator and Sensor placement in linear advection PDE*, J. Math. Anal. Appl. (submitted July 2011)

**Castellani, B. and Rajaram, R.** *Social Complexity Theory: A Mathematical Outline*. Journal of Computational and Mathematical Organization Theory (submitted June 2011)

**Articles in Print**

**Rajaram, R., Vaidya, U., Fardad, M., & Ganapathysubramanian, B.** *Stability in the almost everywhere sense: a linear transfer operator approach*, J. Math. Anal. Appl., 368, pp. 144-156, 2010.

**Rajaram, R., & Najafi, M.** *Exact controllability of a system of coupled strings in parallel*, Applicable Analysis, 89(5), pp. 677-691, May 2010.

**Rajaram, R., & Najafi, M.** *Exact controllability of wave equations in  $R^n$  coupled in parallel*, J. Math. Anal. Appl., 356, pp. 7-12, 2009.

**Rajaram, R., & Najafi, M.** *Analytical treatment and convergence of the Adomian Decomposition Method for a system of coupled damped wave equations*. Applied Mathematics and Computation, 212, pp. 72-81, 2009.

**Rajaram, R.** *Exact boundary controllability of the linear advection equation*. Applicable Analysis, 88(1), pp. 121-129, January 2009.

**Rajaram, R.** *Exact boundary controllability results for a Rao-Nakra sandwich beam*. Systems and Control Letters, 56(7-8), pp. 558-567, 2007.

**Rajaram, R. & S.W. Hansen** *Null controllability of a damped Mead-Markus sandwich beam*. Discrete and Continuous Dynamical Systems (Supplemental Volume), pp: 746-755, 2005.

**Hansen, S.W., & Rajaram, R.** *Riesz basis property and related results for a Rao-Nakra Sandwich Beam*. Discrete and Continuous Dynamical Systems (Supplemental Volume), pp.365-375, 2005.

**Presentations**

**Vaidya, U., Rajaram, R., & Dasgupta, S.** *Gramian based approach for actuator and sensor placement*, IEEE Conference on Decision and Control, Orlando, December 2011.

**Castellani, B. and Rajaram, R.** *Social Complexity Theory: A Mathematical Outline*. Eighth International Conference on Complex Systems, Boston, July 2011.

**Rajaram, R.** *The use of a density based approach in study of complex non-equilibrium dynamics*. Eighth International Conference on Complex Systems, Boston, July 2011.

**Rajaram, R.** *Almost everywhere stability*. Invited lecture at the Math Colloquium at Virginia Polytechnic University, October 2008.

**Rajaram, R.** *Comparison of teaching strategies in the East and West*. International Symposium on Sport, Exercise and Leisure, Hebei Normal Univ., Shijiazuang, China, May 2008.

**Rajaram, R.** *Almost everywhere stability*. Standup presentation at the 46<sup>th</sup> IEEE Conference on Decision and Control, New Orleans, LA, December 2007.

**Rajaram, R.** *Exact controllability of a Rao-Nakra sandwich beam*. Standup presentation at the 2005 Fall Southeast Sectional Meeting of the AMS, Eastern Tennessee State University, Johnson City, TN, October 2005.

**Rajaram, R.** *Controllability of the Mead-Markus sandwich beam model*. Standup presentation at the 5<sup>th</sup> AIMS International Conference on Dynamical Systems and Differential Equations, California State Polytechnic University, Pomona, CA, July 2004.

**Conference Proceedings**

**Vaidya, U., Rajaram, R., & Dasgupta, S.** *Gramian based approach for actuator and sensor placement*, IEEE Conference on Decision and Control, July 2011.

**Rajaram, R., Vaidya, U., & Fardad, M.** *Connection between almost everywhere stability of an ODE and the advection PDE*. IEEE Conference on Decision and Control, pp. 5880-5885, July 2007.

**Hansen, S.W., & Rajaram, R.** *Simultaneous boundary control of a Rao-Nakra sandwich beam*. CDC, pp.3146-3151, December 2005.

**Hansen, S.W., & Rajaram, R.** *Exact boundary controllability of a Rao-Nakra sandwich beam*. Proceedings of the SPIE, (5757), pp.97-107, 2005.

**Rajaram, R., Salapaka, M.V., Basso, M., & Dahleh, M.** *Experimental Study of Stochastic Resonance in Atomic Force Microscopes*. Proceedings of the American Control Conference, 2000.

**COMPETITIVE GRANTS****Kent State University**

2010-11 NSF Research grant on *Linear PDE approach for the analysis and control of non-equilibrium dynamics for nonlinear systems*, (\$180,000 - denied)

NTT Professional Development Award for learning enhancement using Wimba and Smartboard Systems, (\$6000 - granted)

2011-12 NTT Professional Development Award for attending the SIAM Annual Meeting at Minneapolis (July 9-13) (\$2325 - granted)

Summer Research Appointment for academic year 2011-12 (\$6500 - granted)

NSF Research grant on NSF Research grant on *Linear PDE approach for the analysis and control of non-equilibrium dynamics for nonlinear systems*, (\$97,510- submitted)