

VITA

DAVID S. GILLIAM

PERSONAL INFORMATION

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EDUCATION:

B.S.	Idaho State University	1969
M.S.	Idaho State University	1971
Ph.D.	University of Utah	1977

ACADEMIC EXPERIENCE:

1990-present	Professor, Texas Tech University
1993-1994	Visiting Professor, University of Texas at Dallas
1989-present	Affiliate Professor, Washington University
1984-1990	Associate Professor, Texas Tech University
1978-84	Assistant Professor, Texas Tech University
1977-78	Lecturer, Texas Tech University
1988	Visiting Associate Professor, Arizona State University
1985-86	Visiting Associate Professor, Colorado School of Mines
1981-82	Visiting Assistant Professor, Arizona State University

SELECT LIST OF PUBLISHED RESEARCH (from over 70)

1. "Boundary control, stabilization and zero-pole dynamics for a nonlinear distributed parameter system," to appear in *Journal of Robust and Nonlinear Control*, with C.I. Byrnes and V.I. Shubov.
2. "Stationary solutions for a boundary controlled viscous Burgers' equation," to appear in *Mathematical and Computer Modeling*, with A. Balogh, V.I. Shubov.
3. "Output regulation for linear distributed parameter systems," to appear in *IEEE Trans. Aut. Control*, with C.I. Byrnes, I.G. Laukó and V.I. Shubov.
4. "On the global dynamics for a boundary controlled viscous Burgers' equation," *J. Dynam. Control Systems*, 4 (1998), no. 4, 457-519, with C.I. Byrnes and V.I. Shubov
5. "Zero Dynamics for Relative Degree One SISO Distributed Parameter Systems," *Proc. 37th IEEE CDC*, (Tampa, FL, 1998), pp. 2390-2391, with C.I. Byrnes, I.G. Laukó and V.I. Shubov.

6. "Conditions for Solvability of the Output Regulator Problem for SISO Distributed Parameter Systems," *Proc. 37th IEEE CDC*, (Tampa, FL, 1998), pp. 2392-2393, with C.I. Byrnes, I.G. Laukó and V.I. Shubov.
7. "Global solvability for damped abstract nonlinear hyperbolic systems," *Differential and Integral Equations*, 10, 309-332, 1997, with H.T. Banks and V.I. Shubov.
8. "Harmonic forcing for Linear Distributed Parameter Systems," *Journal of Mathematical Systems, Estimation and Control*, Summary Vol. 8, No. 2, 1998, with C.I. Byrnes, I. Lauko and V. Shubov. (full paper at <http://www.birkhauser.com>)
9. "Numerical stationary solutions for a viscous Burgers' equation," *Journal of Mathematical Systems, Estimation and Control*, with J. Burns, A. Balogh and Victor I. Shubov. Summary Vol. 8, No. 2, 1998, (full paper at <http://www.birkhauser.com>)

CURRENT SPONSORED RESEARCH:

1. "A Mathematical Analysis of Tornado Dynamics," \$ 66,702.00, (with V.I. Shubov).
2. NSF Instrumentation and Laboratory Improvement Program, "Technology Center for Teacher Preparation," \$98,000.00, (with Lawrence Schovanec and Gary Harris).
3. (Consultant) "Nonlinear Control Systems," (PI C.I. Byrnes), AFOSR Grant, 12/97-11/2000 (funded) (1 1/2 Months Summer Support).

PRESENTATIONS 1998

1. (Speaker) "Output regulation for nonlinear distributed parameter systems," International Conference on the Mathematical Theory of Networks and Systems, Padova, Italy (July).
2. (Invited Talk) "Output regulation for nonlinear distributed parameter systems," 6th Conference on Computation and Control in Bozeman, Montana (August).
3. (Invited Talk) "Control of Nonlinear Distributed Parameter Systems," Student Chapter SIAM TTU (November).
4. (Invited Talk) "Output regulation for regular linear distributed parameter systems," Department of Systems Science and Math, Washington University, St. Louis, (March).
5. (Invited Talk) "Output regulation for distributed parameter systems," SIAM Conference on Systems and Control, Jacksonville, Florida (May).
6. (Contributed Talk) "Conditions for Solvability of the Regulator Problem for Linear Distributed Parameter Systems," Texas System Days.

7. (Contributed Talk) “Conditions for Solvability of the Regulator Problem for Linear Distributed Parameter Systems,” 37th IEEE Conference on Decision and Control, Tampa, FL.
8. (Contributed Talk) “Zero Dynamics for Linear Distributed Parameter Systems,” 37th IEEE Conference on Decision and Control, Tampa, FL.
9. Organizer and Chair of special session entitled “Applications of Numerical, Functional and Stochastic Methods to the Analysis of Data” for International Conference on the Mathematical Theory of Networks and Systems, Padova, Italy (July).

PROFESSIONAL AFFILIATION

1. Society of Industrial and Applied Mathematicians
2. IEEE
3. Systems and Control Society
4. American Mathematical Society
5. Local Student Chapter SIAM

PROFESSIONAL REVIEWING:

1. IEEE, Trans. Auto. Control.
2. Systems and Control Letters.
3. Journal of Math. Physics.
4. Journal of Systems, Estimation and Control.
5. Journal of Integral and Differential Equations.
6. National Science Foundation
7. International Federation of Automatic Control
8. Automatica