

## DAVID GARY MEYER

11716 Crystal View Lane

Longmont, CO 80504

Home: (303) 652-0315    Work: (303) 492-7158

FAX: (303) 652-0694    E-Mail: David.Meyer@colorado.edu

### PERSONAL

Date of Birth: September 13, 1960

Citizenship: USA

### EDUCATION

Ph.D. E.E. Stanford University, 1987

M.S.E.E. Stanford University, 1985

M.S. Mathematics University of Wyoming, 1982

B.S. Mathematics University of Wyoming, 1982 (with Highest Honors)

B.S.E.E. University of Wyoming, 1982 (with Highest Honors)

### EMPLOYMENT

Summer 1993    Visiting Professor, Department of Electrical Engineering  
Stanford University, Stanford, CA

1992 – Present    Associate Professor, Department of Electrical & Computer Engineering  
University of Colorado, Boulder, CO

1987 – 1991    Assistant Professor, Department of Electrical Engineering  
University of Virginia, Charlottesville, VA

1988 – 1989    Visiting Professor, Courant Institute of Mathematical Sciences  
New York University, New York, NY

1986 – 1987    Research and Teaching Assistant, Information Systems Laboratory  
Stanford University, Stanford, CA

## HONORS

“Frontiers of Control in Vapor Deposition,” MRS Plenary, 2000  
Boeing Outstanding Educator Award Final Three, 1996  
Electrical Engineering Outstanding Young Teacher, 1990  
National Science Foundation Graduate Fellow, 1982-1985  
Britschgi Memorial Award, University of Wyoming, 1982  
Tau Beta Pi, 1982  
Phi Beta Kappa, 1982  
Phi Kappa Phi, 1982

## GRANTS

1998 – 2001 National Science Foundation  
*Virtual Integrated Prototyping for Thin films*, \$4.5M

1996 – 1997 University of Colorado Integrated Teaching & Learning Program  
*Enrichment of Applied Math 2360*, (w/ D. Lawrence & J. Meiss) \$12,500

1995 – 1998 National Institute of Standards and Technology  
*CAD/CAM for Deformation Processing of Advanced Composites*, \$2.5M

1995 – 1998 Defense Advanced Research Projects Agency  
*Integrated Multi-Sensors and Controls for Growth of III-V's by  
Molecular Beam Epitaxy*, \$2.3M

- 1995 – 1999 National Science Foundation  
*Hands-On Engineering Homework: A New Approach to Out of Class Learning*, \$95,796. (w/ A. Bedard)
- 1994 – 1995 University of Colorado Engineering Excellence Fund  
*Development of EE2*, \$13,520
- 1994 – 1996 Jet Process Corporation  
*Intelligent Processing of Materials for Jet Vapor Deposition*, \$84,406
- 1994 – 1995 University of Colorado Integrated Teaching & Learning Program  
*A Highly Linear System for Control Theory Demonstration*, \$13,100
- 1993 – 1995 Hughes and Texas Instruments  
*Control Strategies for Molecular Beam Epitaxy*, \$156,789
- 1992 – 1993 National Science Foundation  
*Robustness Theory for Multi-Rate Systems*, \$20,095
- 1991 – 1992 General Electric Aircraft Engine Group  
*Integration & Control of Models for Processing of Metal-Matrix Composites*, \$349,943
- 1990 – 1993 National Aeronautics and Space Administration  
*Intelligent Processing of Materials for Design and Manufacturing*, \$875,302
- 1990 – 1991 MarkeTech Systems Incorporated  
*A New Computer Aided Design Method For Nonlinear Controllers*, \$36,505
- 1989 – 1993 National Aeronautics and Space Administration  
*Computer-Aided Design and Modeling of Petri-Net Based Control Systems*, \$88,000
- 1989 – 1990 University of Virginia Faculty Development Award  
*Tactile Sensing For Robot Manipulators*, \$10,000
- 1988 – 1990 National Science Foundation  
*Computer-Aided Design and Analysis of Multi-Rate Digital Control Systems*, \$47,000

## PUBLICATIONS

### Journals

1. D. G. Meyer and G. F. Franklin, "A connection between normalized coprime factorizations and linear quadratic regulator theory," *IEEE Transactions on Automatic Control*, pp. 227-228, March, 1987.
2. S. P. Boyd, D. G. Meyer, et.al., "A new computer aided design method for linear controllers and associated architectures," *IEEE Transactions on Automatic Control*, pp. 268-284, March, 1988.
3. D. G. Meyer, "Two properties of  $\ell_1$ -optimal controllers," *IEEE Transactions on Automatic Control*, pp. 876-878, September, 1988.
4. D. G. Meyer, "Annihilator structure of a principal ideal: Relation to optimal compensators," *Automatica*, pp. 829-833, November, 1988.
5. D. G. Meyer, "A comparison of the  $H_\infty$  and  $\mathbf{R}^N$  state-space induced quotient topologies on stable minimal systems," *International Journal of Control*, vol. 50, pp. 1227-1234, 1989.
6. D. G. Meyer, "On computing the minimum possible peak value of a multi-input, infinite-horizon steering control," *IEEE Transactions on Automatic Control*, pp. 243-247, February, 1990.
7. D. G. Meyer, "A parametrization of stabilizing controllers for multirate sampled-data systems," *IEEE Transactions on Automatic Control*, pp. 233-236, February, 1990.
8. D. G. Meyer, "A new class of shift-varying operators, their shift invariant equivalents, and multi-rate digital systems," *IEEE Transactions on Automatic Control*, pp. 429-433, April, 1990.
9. D. G. Meyer, "The construction of special coprime factorizations in discrete-time," *IEEE Transactions on Automatic Control*, pp. 588-590, May 1990.

10. D. G. Meyer, "Fractional balanced model reduction: Model reduction via fractional representation," *IEEE Transactions on Automatic Control*, pp. 1341-1345, December, 1990.
11. D. G. Meyer, "Some tradeoffs in the construction of interfaces to tactile sensor arrays," *IEEE Journal of Robotics and Automation*, vol. RA-7, pp. 171-175, February, 1991.
12. D. G. Meyer, "The graph topology is quotient Euclidean on  $n$ th-order systems," *IEEE Transactions on Automatic Control*, pp. 338-340, March, 1991.
13. J. C. McEachen and D. G. Meyer, "Tradeoffs for multi-rate controller design and exact comparisons with single-rate control," *IEEE Control Systems Magazine*, pp. 30-35, vol. 11, no. 6, October 1991.
14. D. G. Meyer, "Cost translation and a lifting approach to the multi-rate LQG problem," *IEEE Transactions on Automatic Control*, pp. 1411-1415, September, 1992.
15. D. G. Meyer and H. N. G. Wadley, "Model-based feedback control of deformation processing with microstructure goals," *Metallurgical Transactions B*, pp. 289-299, April, 1993.
16. D. G. Meyer and S. Srinivasan, "Balancing and model reduction for second order form linear systems," *IEEE Transactions on Automatic Control*, pp. 1632-1645, November, 1996.
17. R. Vancheeswaran, H. N. G. Wadley, and D. G. Meyer, "Microstructure path planning during consolidation of titanium metal matrix composite processing," Extraction and Processing Division, TMS EPD Congress, Ed. G. Warrent, December, 1996
18. R. Vancheeswaran, D. G. Meyer, and H. N. G. Wadley, "Optimizing the consolidation of titanium matrix composites," *Acta Met. et Mat.* Vol. 45, No. 10, pp. 4001-4018, November, 1997.
19. M. K. Tucker and D. G. Meyer, "Nonlinear modeling, identification, and feedback control design for the modern effusion cell," *J. Vac. Sci. Technol. A*, Vol. 16, No. 6, pp. 3536-3554, Nov./Dec., 1998
20. R. Caffisch and D. G. Meyer, "Reduced order modeling of epitaxial growth," *Contemp. Math.*, vol. 330, pp. 9-23, December, 2003.

## Conferences

1. S. P. Boyd and D. G. Meyer, et.al., "A CAD method and architectures for linear controllers," *Proceedings of the 24th Allerton Conference on Communication, Control, and Computing*, October, pp. 889-898, 1986.
2. D. G. Meyer and S. P. Boyd, "A Note on the order of  $\ell_1$ -optimal compensators," *Proceedings of the 25th IEEE Conference on Decision and Control*, December, pp. 14-15, 1986.
3. D. G. Meyer, "A fractional approach to model reduction," *Proceedings of the 1988 American Control Conference*, June, pp. 1041-1048, 1988.
4. D. G. Meyer and M. A. Dahleh, "A result on time-varying compensation in  $\ell_1$  sensitivity minimization," *Proceedings of the 1988 Conference on Decision and Control*, pp. 435-437, December, 1988.
5. D. G. Meyer, "Shift-invariant equivalents for a new class of shift-varying operators with applications to multi-rate digital control," *Proceedings of the 1988 Conference on Decision and Control*, pp. 1697-1701, December, 1988.
6. D. G. Meyer, "Toward a new CAD method for multi-rate, MIMO digital controllers," *Proceedings of the 1988 Conference on Decision and Control*, pp. 1889-1892, December, 1988.
7. D. G. Meyer, "A parametrization of all stabilizing multi-rate controllers," *Proceedings of the 1988 Conference on Advanced Communications and Controls*, pp. 1391-1399, October, 1988.
8. D. G. Meyer, "On the graph topology," *Proceedings of the 1989 American Control Conference*, Pittsburgh PA, 1989.
9. D. G. Meyer, "Issues in computer-aided design for time-varying systems," (Invited Paper) *Proceedings of the 1989 Conference on Decision and Control*, Tampa, FL, 1989.
10. D. G. Meyer, "A new metric that generates the graph topology and is quite computable," *Proceedings of the 1990 Conference on Decision and Control*, pp. 977-980, December, 1990.
11. H. N. G. Wadley, D. Elzey, L. Hsiung, Y. Lu, J. Duva, K. Dharmasena, and D. G. Meyer, "Intelligent processing of intermetallic composite

consolidation,” *Proceedings of the 1991 Thermal Structures Conference*, Charlottesville, April, 1991.

12. J. C. McEachen and D. G. Meyer, “Tradeoffs for multi-rate controller design and exact comparisons with single-rate control,” *Proceedings of the 1991 American Control Conference*, pp. 173-178, Boston, June, 1991.
13. D. G. Meyer, “A theorem on translating the general multi-rate LQG problem to a standard LQG problem via lifts,” *Proceedings of the 1991 American Control Conference*, pp. 179-183, Boston, June, 1991.
14. T. L. Trinh and D. G. Meyer, “Learning HIP dynamics with neural networks,” *Proceedings of the 1991 International Joint Conference on Neural Networks*, Singapore, November 1991.
15. A. J. Newman and D. G. Meyer, “Observability of HIP nonlinear dynamics,” *Proceedings of IEEE SouthEastCon*, pp. 703-707, vol. 2, Birmingham, AL, April, 1992.
16. T. Rachell and D. G. Meyer, “Fault detection and initial state verification by linear programming for Petri Nets,” *Proceedings of the 1992 American Control Conference*, pp. 3191-3197, Chicago, June, 1992.
17. D. G. Meyer, S. Srinivasan, and L. Barrett, “2nd-Order balancing and 2nd-order model reduction,” *Proceedings of the 1993 American Control Conference*, pp. 2116-2122, San Francisco, June, 1993.
18. D. G. Meyer, “Decoupling temperature and composition in the growth of III-V semiconductors by molecular beam epitaxy,” *Conference on Intelligent Epitaxy*, Banff, Canada, June 1995 (Invited Paper).
19. R. Vancheeswaran and D. G. Meyer, “Path planning the processing of titanium matrix composites,” *Proceedings of the 1996 IEEE Conference on Control Applications*, pp. 834-839, Dearborn, MI, September, 1996.
20. M. Tucker and D. G. Meyer, “Identification and control of the modern effusion cell,” *Conference on Intelligent Epitaxy*, Kananaskis, Canada, April, 1997.
21. A. Bennett and D. G. Meyer, “Gain scheduled feedback control of substrate temperature during InGaAs growth by MBE,” *Conference on Intelligent Epitaxy*, Kananaskis, Canada, April, 1997.

22. R. Vancheeswaran and D. G. Meyer, "A full simulation of the sinter-HIP'ing of a Ti6-4 metal matrix composite," *International Conference on Modeling and Simulation*, Singapore, October, 1997.
23. J. E. Hauser and D. G. Meyer, "Trajectory morphing for nonlinear systems," *Proceedings of the 1998 American Control Conference*, vol. 4, pp. 2065-2070, Philadelphia, PA, June, 1998.
24. D. G. Meyer, Teri Piatt, Ravi Vancheeswaran, H. N. G. Wadley, and Robert Kosut, "Cross-Positive vector fields: Nonlinear invariance," *Proceedings of the 1998 American Control Conference*, vol. 1, pp. 308-312, Philadelphia, PA, June, 1998.
25. T. Piatt, D. G. Meyer, and R. Vancheeswaran, "Robust controller design for processing titanium alloy composites," *Proceedings of the 1998 Conference on Control Applications*, vol. 1, pp. 1056-1062, Trieste, Italy, September, 1998.
26. D. G. Meyer, A. D. Bennett, M. K. Tucker, and A. P. Engelmann, "The VMBE system: Virtual prototyping within reach," *Proceedings of the 35th Technical Meeting of the Society of Engineering Science*, Washington State University, September, 1998
27. R. Vancheeswaran, D. G. Meyer, T. Piatt, and H.N.G. Wadley, "Feedback designs for consolidation processing of titanium matrix composites," *Proceedings of the 35th Technical Meeting of the Society of Engineering Science*. Washington State University, September, 1998
28. J. Hauser and D. G. Meyer, "The trajectory manifold of a nonlinear control system," *Proceedings of the 1998 Conference on Decision and Control*, pp. 1034-1039, Tampa, FL, December, 1998.
29. M. K. Tucker and D. G. Meyer, "Nonlinear feedback control and observer design for the modern effusion cell," *Proceedings of the 1998 Conference on Decision and Control*, pp. 463-468, Tampa, FL, December, 1998.
30. A. Engelman, D. G. Meyer, J. E. Hauser, and R. Caflish, "Trajectory Morphing Applied to Epitaxial Thinfilm Growth," *Proceedings of the 1999 American Control Conference*, pp. 3589-3593, San Diego, CA, 1999

31. D. G. Meyer, T. Piatt, A. Engelman, and J. Hauser, "Cross-Positive vector fields: Directed stability," Accepted, *1999 Conference on Decision and Control*, Phoenix, AZ, December, 1999.
32. R. Kosut, M. Gyure, R. Caffisch, D. G. Meyer, and A. Engelman, "Feedback Control of III-V Morphology During Epitaxial Growth via Molecular Beam Epitaxy," **Invited Paper**, *1999 Conference on Decision and Control*, Phoenix, AZ, December, 1999.
33. D. G. Meyer, "A Foias operator for studying uncertainty in dynamic systems," *Proceedings of the American Control Conference*, pp. 5031-5032, Minneapolis, MN, 2006.

#### Books, Book Chapters, Monographs, Other

1. D. G. Meyer, "Intelligent compilers, The  $Q$ -parameterization and convex programming: Concepts for an advanced computer-aided control system design method," *The Application of Advanced Computing Concepts and Techniques in Control Engineering*, NATO ASI Series, Vol. F47, Ed. by M. Denham and A. Laub, Springer-Verlag, Berlin, 1988.
2. H. N. G. Wadley, D. M. Elzey, L. M. Hsuing, Y. Lu, J. M. Duva, S. Parthasarathi, K. P. Dharmasena, J. M. Kunze, and D. G. Meyer, "Intelligent Processing of Intermetallic Composite Consolidation," *Thermal Structures and Materials for High-Speed Flight*, vol. 140 of Progress in Astronautics and Aeronautics, E. A. Thornton, ed., AIAA Washington, D.C., 1992.
3. D. G. Meyer, R. Vancheeswaran, and H. N. G. Wadley, "Application of micromechanical models for on-line control of MMC consolidation," *Model-Based Design of Materials and Processes*, TMS Symposium Series, Ed. by E. S. Russell, D. M. Elzey, and D. G. Backman, TMS, Warrendale, PA, 1992.
4. D. G. Meyer, "Computing Exact Performance Tradeoffs for Multirate Systems," *Digital Control Systems Design and Techniques*, Series in Control and Dynamic Systems, Academic Press, San Diego, CA, 1994.
5. H. Conway and D. G. Meyer, "Do Sales Goals Punish Top Performers?," *USBanker*, October, 1998.
6. H.N.G. Wadley and D. G. Meyer, "Modeling and Control of Thin-film Growth Processes," Chapman & Hall, In Preparation.

## PROFESSIONAL ACTIVITIES

Associate Editor, *IEEE Transactions on Automatic Control* 1993-1995

Reviewer for various journals including

- IEEE Transactions on Automatic Control
- IEEE Transactions on Circuits and Systems
- ASME Journal of Dynamic Systems, Measurement, and Control
- Automatica
- SIAM Journal of Control and Optimization
- AIAA Journal of Guidance, Control, and Dynamics
- IEEE Transactions on Education
- IEEE Conference on Decision and Control
- American Control Conference
- National Science Foundation, ECS Division
- National Science Foundation, DMS Division

Institute of Electrical and Electronics Engineers (IEEE)

Society for Industrial and Applied Mathematics (SIAM)

American Society for Engineering Education (ASEE)

Session chair or organizer at various conferences including

- American Control Conference
- Conference on Decision and Control
- TMS Annual Meeting

Workshops Organized:

- 1996 Virtual MBE, Malibu, CA. (Hughes)
- 1997 Software Issues in MBE Control, Boulder, CO. (DARPA)
- 1998 Control of Thinfilm Growth, Arlington, VA. (NSF)

## MAJOR CONSULTING

1998 – now ITN Energy Systems, Wheat Ridge, CO  
1985 – 1986 Integrated Systems Incorporated, Palo Alto, CA  
1988 – 1990 MarkeTech Systems Incorporated, Troy, MI  
1991 – 1992 Carbon Fuels Corporation, Denver, CO  
1990 – 1992 BDM International, Arlington, VA  
1995 – 1997 SC Solutions, Santa Clara, CA

## INVITED LECTURES AND PRESENTATIONS

*Intelligent Control Specification Language Compilers, the Q-Parametrization, and Convex Programming: Concepts for an Advanced Computer-Aided Control System Design Method*

NATO Advanced Study Institute, Il Ciocco, Italy, September, 1987

*Computer Aided Design for Multi-Rate Control*

University of California, Santa Barbara, December, 1987

*A Computer Aided Design Method for Multi-Rate Control*

Massachusetts Institute of Technology, February, 1988

*A New Approach to Multi-Rate Control Design*

Courant Institute of Mathematical Sciences, January, 1989

*Periodic Versus Multi-Rate, Which is Which?*

Cornell University, November, 1989

*How Attractive are You? A Numerical Approach To Zubov Theory*

Cornell University, October, 1990

*Control of the Hot Isostatic Pressing Process: Theory and Application*

Virginia Polytechnic Institute, February, 1991

*Dynamic Modeling and Control of Growth by Molecular Beam Epitaxy*

Texas Instruments, Dallas, December, 1992

*Feedback Control of Flux from Effusion Cells*

Hughes Research Laboratory, Los Angeles, September, 1993

*Decoupling Temperature and Composition in the Growth of III-V Semiconductors by Molecular Beam Epitaxy*

Workshop on Intelligent Epitaxy, Banff, Canada, June 1995

*Path-Planning the Consolidation of Titanium Alloy Composites,*  
Graduate Seminar Series,

University of Colorado, Boulder, CO, May, 1997

*Key Control Problems in Sputtering and Plasma Dynamics*

Workshop on Thermal Barrier Coatings, University of Virginia,  
Charlottesville, VA, May 1997

*Controlling III-V Compound Semiconductor Epitaxial Growth,* Invited Talk,

Stanford Materials Research Center,  
Stanford, CA, July 1997

*Control Problems in the Manufacture of Thinfilms, Parts I and II,*

Invited Talk, AMS/NSF Summer Research Institute on Differential  
Geometric and Nonlinear Control, University of Colorado  
Boulder, CO, July, 1997

*Path-Planning by Successive Approximations,*

Invited Seminar, UCLA Applied Mathematics Seminar Series,  
Los Angeles, CA, March 1998

*Virtual MBE Version 3.0,*

Invited Seminar, HRL Laboratories Eminent Speaker Series,  
Malibu, CA, March 1998

*Path-Planning and Trajectory Generation for Thinfilm Growth,*

Invited Workshop Lecture, National Science Foundation  
Cross-Cutting Workshop, Arlington, VA, April 1998

*Dynamically Path-Planning For Consolidation of Titanium Matrix Composites,*

University of Colorado Applied Math Seminar Series,

Boulder, CO, April, 1998

*Planning Deformation Processing of Titanium Matrix Composites,*  
Invited Workshop Lecture, United Technologies Research Center Diffusion  
Bond Program Workshop,  
Hartford, RI, July, 1998

*The VMBE System: Virtual Prototyping Within Reach,*  
Invited Talk, 35th SES Meeting,  
Pullman, WA, September, 1998

*Controllers for Consolidation Processing of Titanium Matrix Composites,*  
Invited Talk (w/ R. Vancheeswaran), 35th SES Meeting,  
Pullman, WA, September, 1998

*Three New Control Theories Motivated by Thinfilm Growth,* Invited Work-  
shop Lecture, DARPA/NSF Workshop on Control of Thinfilm Growth,  
June, 1999

*Frontiers of Control in Vapor Deposition,* Invited Plenary Lecture, MRS  
Meeting, April, 2000

## TEACHING AND COURSE DEVELOPMENT

Linear Systems & Modern Control (U.Va.)  
Developed and Taught (Graduate)

Optimal Control & Optimization (U.Va.)  
Developed and Taught (Graduate)

Multivariable Linear Control (U.Va.)  
Developed and Taught (Graduate)

Nonlinear Systems & Control (U.Va.)  
Developed and Taught (Graduate)

Introduction to Electrical Science (U.Va.)  
Taught (Undergraduate Core)

Senior Thesis/Project (U.Va.)  
Supervised, (Senior Requirement)

Control System Analysis (CU)  
Taught (Senior Elective)

Digital Control Systems (CU)  
Developed and Taught (Graduate)

Advanced Linear Systems (CU)  
Developed and Taught (Graduate)

Nonlinear Control Theory (CU)  
Taught (Graduate)

Differential Geometric Nonlinear Control (CU)  
Developed and Co-Taught w/ Professor J. Hauser (Graduate)

Discrete-Event Systems (CU)  
Developed and Co-Taught w/ Professor M. Lightner (Graduate)

Thin-Film Manufacture (CU)  
Developed (Graduate)

Control Systems Analysis (CU)  
Developed and Taught (Senior Elective)

Circuits II (CU)  
Developed and Taught (Undergraduate Core)  
(Engineering Excellence Fund Supported)

Circuits II Hands-on-Homework (CU)  
Developed (NSF Supported)

Optimization and Optimal Control (CU)  
Taught

## MAJOR CU SERVICE

Undergraduate Committee(U.Va.), 1989 - 1991  
Eminent Speakers Committee Chair(U.Va.), 1987 - 1988  
Computer Resources Committee (U.Va.), 1988 - 1991  
Laboratory Remodel Committee Chair (CU), 1992 - present  
Integrated Teaching Laboratory Core Team (CU), 1993 - 1996  
Freshman Advisor (CU), 1993 - present  
ECEN Core Revision Project, Circuits II Chair, 1993-1994  
IEEE Student Branch Counselor (CU), 1994-1995  
Center for Information Storage Charter Member (CU), 1997-present  
Complexity and Chaos Center Executive Committee (CU), 1996-1999

## GRADUATE RESEARCH SUPERVISED

- 1988      Chang-Mon Son (M.S.)  
Dynamic Programming for Solution of Discrete-Time Control Problems  
*Current Address:* Unknown
- 1990      Richard Hilton (Ph.D.)  
A New Method of Estimating the Domain of Attraction for Nonlinear Systems  
*Current Address:* Dahlgren Naval Warfare Station, Dahlgren, VA
- 1990      James McEachen (M.S.)  
Exact Trade-Off Analysis for Multi-rate Controllers  
*Current Address:* Major, United States Air Force
- 1990      Kevin Leysath (M.E.)  
Convex Optimization Design of a Magnetic Bearing Controller  
*Current Address:* Unknown
- 1991      Thien-Kim L. Trinh (M.S.)  
Learning Hot Isostatic Pressing with Neural Networks  
*Current Address:* IBM Incorporated, Arlington, VA
- 1991      Monica P. Carley (M.S.)  
On The Efficacy of Finite Impulse Response Modeling

*Current Address:* Unknown

- 1991 Andrew J. Newman (M.S.)  
Observability of, and Observer Design for, the HIP nonlinear dynamic system  
*Current Address:* EE Department, University of Maryland, College Park, MD
- 1993 Kuo-Chen Chou (M.S.)  
Feedback Control for Molecular Beam Epitaxy  
*Current Address:* Tsinghu Machinery Incorporated, Taiwan
- 1994 Brian Testerman (M.S.)  
Fault Tolerance Analysis with Petri Nets  
*Current Address:* Unknown
- 1995 Traxon Rachell (Ph.D.)  
Liveness and Safeness in Asymmetric Choice Petri Nets via S-Invariants  
*Current Address:* Departamento de Informatica, Universidad de Zaragoza, Zaragoza, Spain
- 1996 Ravi Vancheeswaran (Ph.D.)  
Simulation and Control of the Microstructure During Consolidation of Porous Metal-Matrix Monotapes  
*Current Address:* Center for Intelligent Processing of Materials, University of Virginia Charlottesville, VA
- 1998 Matthew Tucker (Ph.D.)  
Modeling and Feedback Control Design for the Modern Effusion Cell  
*Current Address:* Storage Technology, Inc. Louisville, CO
- 1999 Adam Bennett (Ph.D.)  
Modeling and Control of Substrate Temperature Durig Molecular Beam Epitaxy  
*Current Address:* National Semiconductor, Inc. Fort Collins, CO
- 2000 Teri Piatt (Ph.D.)  
Theory of Directionally Constrained Dynamic Systems  
*Current Address:* Ohio Northern University, Ada, Ohio
- 2001 Andrew Englemann (Ph.D.)

Maneuver Regulation Applied to Morphology Control During Thinfilm Growth  
*Current Address:* Storage Technology Inc., Louisville, CO

2002 Robert Weber (B.S./M.S.)