

## List of Publications

### Books

Tewari, A., *Automatic Control of Atmospheric and Space Flight Vehicles*, (ISBN: 9780817648633), Springer (Birkhäuser), New York, U.S.A., 2011.

Tewari, A., *Advanced Control of Aircraft, Spacecraft, and Rockets*, (ISBN: 9780470745632), John Wiley & Sons, Chichester, U.K., 2011.

Tewari, A., *Atmospheric and Space Flight Dynamics—Modeling and Simulation*, Paperback ed. (ISBN-10: 0817643737), Hardcover ed. (ISBN-10: 0817644377), Birkhäuser, Boston, U.S.A., 2006.

Tewari, A., *Modern Control Design with MATLAB and Simulink*, (ISBN: 0471496790), John Wiley & Sons, Chichester, U.K., 2002.

### Journal Papers

Tewari, A., *Entry Trajectory Model with Thermomechanical Break-Up*, AIAA Journal of Spacecraft and Rockets, Vol.46, No.2, March-April, 2009, pp. 299-306.

Sudhir, M., and Tewari, A., *Adaptive Maneuvering Entry Guidance with Ground-Track Control*, Aerospace Science & Technology, Vol. 11, Issue 5, June 2007, pp. 419-431.

Kumar, M., and Tewari, A., *Trajectory and Attitude Simulation for Mars Aerocapture and Aerobraking*, AIAA Journal of Spacecraft & Rockets, Vol.43, No.3, May-June 2006, pp. 585-593.

Kumar, M., and Tewari, A., *Trajectory and Attitude Simulation for Aerocapture and Aerobraking*, AIAA Journal of Spacecraft & Rockets, Vol.42, No. 4, July-Aug. 2005, pp. 684-693.

Sharma, R., and Tewari, A., *Optimal Nonlinear Tracking of Spacecraft Attitude Maneuvers*, IEEE Transactions on Control Systems Technology, Vol.12, No.5, September 2004, pp. 677-682.

Tewari, A., *Optimal Nonlinear Spacecraft Attitude Control Through Hamilton-Jacobi Formulation*, AAS Journal of Astronautical Sciences, Vol.50, No.1, 2002, pp. 99-112.

Tewari, A., *Optimal Nonlinear Spacecraft Attitude Control Through Hamilton-Jacobi Formulation*, Advances in Astronautical Sciences, Vol.109, pp.1191-1206, 2001.

Tewari, A., *Rate Weighted Optimal Control of Aeroelastic Systems*, AIAA Journal of Guidance, Control, and Dynamics, Vol.24, No.2, March-April 2001.

Tewari, A., *Robust Model Reduction for a Flexible Spacecraft*, AIAA J. of Guidance, Control, & Dynamics, Vol.21, No.5, September-October 1998.

Tewari, A., *Robust Optimal Control of a Flexible Spacecraft*, Advances in Astronautical Sciences, Vol.97, pp.1931-1948, 1997.

Tewari, A., *Doublet-Point Method for Supersonic Unsteady Aerodynamics of Nonplanar Lifting Surfaces*, AIAA Journal of Aircraft, Vol.31, No.4, July-August 1994, pp. 745-752.

Tewari, A., *Accuracy of the Rational Function Approximations for Linearized Transonic Unsteady Aerodynamics*, AIAA Journal of Aircraft, Vol.30, No.6, November-December 1993.

Tewari, A., *Multiple-Pole Rational Function Approximations for Unsteady Aerodynamics*, AIAA Journal of Aircraft, Vol.30, No.3, May-June 1993.

Eversman, W., and Tewari, A., *Consistent Rational Function Approximation for Unsteady Aerodynamics*, AIAA Journal of Aircraft, Vol.28, No.9, September 1991, pp. 545-552.

Eversman, W., and Tewari, A., *Modified Exponential Series Approximation for the Theodorsen Function*, AIAA Journal of Aircraft, Vol.28, No.9, September 1991, pp. 553-557.

### **Conference Papers**

Bandyopadhyay, P., Sharma, R.K., and Tewari, A., *Space Debris Hazards from Fragmentations in Collinear Earth-Moon Points*, Proc. 5<sup>th</sup> European Conference on Space Debris, European Space Agency, Darmstadt, Germany, March 30-April 2, 2009.

Tewari, A., and Renuganth, V., *Optimal Attitude Control through Magnetic Torquers and Reaction Wheels*, 17<sup>th</sup> IFAC Symposium on Automatic Control in Aerospace, Toulouse, France, June 25-29, 2007.

Sudhir, M., and Tewari, A., *Autonomous Maneuvering Entry Guidance with Ground-Track Control*, 45th AIAA Aerospace Sciences Meeting and Exhibit, Reno, Nevada, Jan. 8-11, 2007. Paper AIAA-2007-856.

Tewari, A., *Active Vibration Suppression of Spacecraft with Rate Weighted Optimal Control and Multi-Mode Command Shaping*, AIAA/AAS Astrodynamics Specialist Conference, Providence, Rhode Island, USA. Paper AIAA-2004-5296, 2004.

Kumar, G.V. R., and Tewari, A., *Active Closed-Loop Control of Supersonic Flow with Transverse Injection*, AIAA 2<sup>nd</sup> Flow Control Conference Proceedings, Portland, OR, USA. Paper AIAA-2004-2699, 2004.

Sharma, R., and Tewari, A., *Optimal Nonlinear Tracking of Spacecraft Attitude Dynamics*, AIAA/AAS Astrodynamics Specialist Conference, Providence, Rhode Island, USA. Paper AIAA-2004-5209, 2004.

Kumar, M., and Tewari, A., *Trajectory and Attitude Simulation for Mars Aerocapture and Aerobraking*, AIAA Atmospheric Flight Mechanics Conference, San Francisco, CA, USA, 2005.

Kumar, M., and Tewari, A., *Trajectory and Attitude Simulation for Aerocapture and Aerobraking*, AIAA Atmospheric Flight Mechanics Conference, Providence, Rhode Island, USA, 2004..

Tewari, A., *Nonlinear Optimal Control of Wing Rock Including Yawing Motion*, AIAA Guidance, Navigation, and Controls Conference, Denver, CO, U.S.A. Paper AIAA-2000-4251, 2000.

Tewari, A., *Optimal Nonlinear Spacecraft Attitude Control Through Hamilton-Jacobi Formulation* AAS/AIAA Astrodynamics Specialists Conference, Quebec City, Canada, 2001.

Tewari, A., *Output Rate Weighted Active Flutter Suppression*, AIAA Guidance, Navigation, and Controls Conference, Portland, OR, U.S.A. Paper AIAA-1999-4312, 1999.

Tewari, A., *Rate Weighted Optimal Control of Flexible Structures*, AIAA Adaptive Structures Forum, St. Louis, MO, U.S.A. Paper AIAA-1999-1555, 1999.

Tewari, A., *Robust Optimal Controllers for Active Flutter Suppression*, AIAA Guidance, Navigation and Controls Conference Proceedings, Boston, MA, U.S.A. Paper AIAA-1998-4142, 1998.

Tewari, A., *Aeroservoelastic Design for Flutter Suppression*, 38th AIAA/ASME/ASC/AHS Structures, Structural Dynamics & Materials Conference, Orlando, FL, U.S.A., 1997.

Tewari, A., *Aeroservoelastic Design and Analysis by Nonlinear Optimization*, 6th AIAA/NASA/USAF Symposium on Multidisciplinary Analysis & Optimization, Bellevue, WA, U.S.A. Paper AIAA-1996-4013, 1996.

Tewari, A., *Nonlinear Optimization for Aeroservoelastic Analysis*, World Congress on Optimal Design of Structural Systems, Rio de Janeiro, Brazil, 1993.

Tewari, A., *Nonplanar Doublet-Point Method for Supersonic Unsteady Aerodynamics*, 34th AIAA/ASME/ASC/ASCE/AHS Structures, Structural Dynamics and Materials Conference, La Jolla, CA, U.S.A., 1993.

Balakrishnan, S.N., and Tewari, A., *Computation of Structured Singular Values in Robust Control*, 29th Aerospace Sciences Meeting, Reno NV, U.S.A. Paper AIAA-1991-589, 1991.

Eversman, W., and Tewari, A., *Reduced Cost Rational Function Approximations for Unsteady Aerodynamics*, 31st AIAA/ASME/ASC/ASCE/AHS Structures, Structural Dynamics & Materials Conference, U.S.A. Paper AIAA-1990-1155, 1990.

Eversman, W., and Tewari, A., *Rational Function Approximations for Unsteady Aerodynamics*, MSC/NASTRAN Aeroelasticity Users Conference, Paper No. 11, 1989.