

## Uy-Loi Ly

Associate Professor, Department of Aeronautics and Astronautics  
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Degrees	<p><b>Ph.D.:</b> Stanford University, 1982</p> <p><b>Eng.Deg.:</b> California Institute of Technology, 1978</p> <p><b>M.S.:</b> California Institute of Technology, 1976</p> <p><b>B.S.:</b> University of California, Davis, 1975</p>
Current Position	<p><b>Associate Professor:</b> 1992 - present</p> <p><b>Assistant Professor:</b> 1988 – 1992</p> <p><b>Principal Engineer:</b> The Boeing Company 1982 – 1988</p> <p><b>Senior Specialist Engineer:</b> The Boeing Company 1978 - 1980</p>
Research Interests	Multivariable Control Theory, Robust Control, Flight Controls, Nonlinear Optimization
Selected Publications	<p><b>U. Ly</b> and Shin-Ichiro Higashino, “Development of a UAV Flight-Test Vehicle at the University of Washington,” presented at the 2<sup>nd</sup> AIAA <i>Unmanned Unlimited</i> Systems, Technologies, and Operations – Aerospace, Land and Sea Conference, 15-18 September 2003, San Diego, CA.</p> <p>Anhtuan Ngo and <b>U. Ly</b>, “A Control Design Technique for Linear Systems with Amplitude Constrained Actuator,” <i>Journal of Guidance, Control, and Dynamics</i>, Vol. 22, No. 5, March-April 1999, pp. 731–734.</p> <p>E. Schoemig, M. Sznajder and <b>U. Ly</b>, “Mixed <math>H^2/H^\infty</math>-Control of Multimodel Plants,” <i>Journal of Guidance, Control, and Dynamics</i>, Vol. 18, No. 3, May-June 1995, pp. 525–531.</p> <p>A. Saberi, B. M. Chen, P. Sannuti and <b>U. Ly</b>, “Simultaneous <math>H^2/H^\infty</math> Optimal Control: The State Feedback Case,” <i>Automatica</i>, Vol. 29, No. 6, pp. 1611 - 1614, 1993.</p> <p>C. Ha and <b>U. Ly</b>, “Optimal Discrete-Time Dynamic Output-Feedback Design: a <math>w</math>-Domain Approach,” <i>Journal of Guidance, Control, and Dynamics</i>, Vol. 16, No. 3, May-June 1993, pp. 534 - 540.</p> <p>B. M. Chen, A. Saberi and <b>U. Ly</b>, “A Non-Iterative Method for Computing the Infimum in <math>H^\infty</math>-Optimization,” <i>International Journal of Control</i>, Vol. 56, No. 6, 1992, pp. 1399 - 1418.</p> <p><b>U. Ly</b>, B. VanSteenwyk and E. Schoemig, “Robust Control Design Using Parameter Optimization Techniques,” <i>Control and Dynamic Systems: Advances in Theory and Applications</i>, Vol. 56, Part 2 of 2, pp. 395 - 442, 1993, <i>Academic Press</i>.</p> <p>B. M. Chen, A. Saberi and <b>U. Ly</b>, “Exact Computation of the Infimum in <math>H^\infty</math>-Optimization via Output Feedback,” <i>IEEE Transactions on Automatic Control</i>, Vol. 37, No. 1, pp. 70 - 78, January 1992.</p> <p>Y. Liu, B. D. O. Anderson and <b>U. Ly</b>, “Coprime Factorization Controller Reduction with Bezout Identity Induced Frequency-Weighting,” <i>Automatica</i>, Vol. 26, No. 2, March 1990, pp. 233 - 249.</p> <p><b>U. Ly</b>, A. E. Bryson and R. H. Cannon, “Design of Low-Order Compensators Using Parameter Optimization,” <i>Automatica</i>, Vol. 21, No. 3, pp. 315 - 318, 1985.</p>
Grants & Contracts	PI or co-PI since 1988 on numerous grants and contracts from NASA, ONR and Boeing.
Honors and Awards	<p>Earl Anthony Fellowship, Summer 1976</p> <p>Co-Author of the Best 1986 Paper in the IEEE Transaction on Automatic Control, Vol. AC-31, No.11, November 1986.</p> <p>Best Presentation Award in Session GNC 36 of the 1991 AIAA Guidance, Navigation and Control Conference.</p> <p>1995 Boeing Burt D. Welliver Summer Faculty Fellow.</p>

Professional Memberships	American Institute of Aeronautics and Astronautics (AIAA)
Selected Professional Service	Reviewer of AIAA Journal of Guidance, Navigation and Control, IEEE Control Systems Magazine, International Journal of Control Session Chairman, American Control Conference, June 2-4, 1993 Technical Program Chairman, 1992 AIAA Guidance, Navigation and Control Conference
Selected Consulting	Boeing Company, 2004 - 2009