WEB VERSION OF MICHAEL MALISOFF'S CV

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I Education

1. PhD Student, 1996-2000, Rutgers University, Graduate School at New Brunswick, New Brunswick, NJ (PhD in Mathematics conferred in May 2000).
2. BS and MA Student, 1991-1996, State University of New York (SUNY) at Binghamton (BS *summa cum laude* in Economics and Mathematical Sciences, Phi Beta Kappa).

II Appointments

1. LSU, Baton Rouge, Department of Mathematics. (Tenure-Track Assistant Professor and Associate Member of Graduate Faculty, 2001-2007. Tenured Associate Professor, 2007-2012. Member of Graduate Faculty, 2007–. Roy Paul Daniels Professor, 2012–. Full Professor, 2013–.)
2. Texas A&M University-Corpus Christi (TAMU-CC), Department of Computing and Mathematical Sciences (Tenure-Track Assistant Professor of Mathematics, 2000–2001).
3. Research Associate, 1999-2000, Washington University in Saint Louis, Department of Systems Science and Mathematics (Postdoctoral Position on Defense Advanced Research Projects Agency Joint Force Air Component Commander project "Agile Control of Military Operations").

III Grants awarded

1. Subawardee, "Interval Observers for Enhanced Shipboard Landing and Formation Control for Naval Aircraft," Office of Naval Research. (Sole Principal Investigator (PI) for $158,355 Subcontract from Rutgers University to LSU for 2022-2023. Total Project: $394,067.)
2. Lead PI, "Designs and Theory for Event-Triggered Control with Marine Robotic Applications," US National Science Foundation (NSF) Division of Mathematical Sciences (DMS) Applied Mathematics Program. (Total Budget: $338,032 for 2020-2023. Collaborative with New York University Tandon School of Engineering. Malisoff is PI for $278,032 LSU Portion.)
3. Lead PI, "Sequential Predictors for Partial Differential Equation and Delay Systems: Designs, Theory, and Applications," NSF Division of Electrical, Communications, and Cyber Systems (ECCS) Energy, Power, Control, and Networks (EPCN) Program. (Total Budget: $486,000 for 2017-2020. Collaborative with University of California, San Diego. Malisoff was PI for $266,000 LSU Portion.)
4. Lead PI, "Designs and Theory of State Constrained Nonlinear Predictor Feedbacks for Delay and Partial Differential Equation Systems," NSF ECCS EPCN Program. (Total Budget: $430,000 for 2014-2017. Collaborative with University of California, San Diego. Malisoff was PI for $220,000 LSU Portion.)
5. Lead PI, "Robustness of Networked Model Predictive Control Satisfying Critical Timing Constraints," NSF Division of Civil, Mechanical, and Manufacturing Innovation Sensors, Dynamics, and Control Program. (Total Budget: $441,000 for 2014-2017. Collaborative with Georgia Tech College of Engineering. Malisoff was PI for $160,928 LSU Portion.)
6. Sole PI, "Theory, Methods, and Applications of Nonlinear Control Systems with Time Delays," NSF ECCS Energy, Power, and Adaptive Systems (EPAS) Program. (Total Budget: $340,439 for 2011-2014.)
7. PI, "Autonomous Control and Sensing Algorithms for Surveying the Impacts of Oil Spills on Coastal Environments," NSF ECCS EPAS Program. (Total Budget: $99,999 for 2010-2011. Collaborative with Georgia Tech. Malisoff was PI for $49,558 LSU Portion.)
8. PI, "Theory, Methods, and Applications of Nonlinear Control," Air Force Office of Scientific Research (AFOSR) Dynamics and Control Program. ($312,597 for 2009-2012.)
9. Sole PI, "Research in Nonlinear Control Systems Theory: Lyapunov Functions, Stabilization, and Engineering Applications II," NSF DMS Mathematical Sciences Priority Area (MSPA) Interdisciplinary Program. ($187,917 for 2007-2010.)

10. Sole PI, "Research in Nonlinear Control Systems Theory: Lyapunov Functions, Stabilization, and Engineering Applications," NSF DMS MSPA Interdisciplinary and Control, Networks, and Computational Intelligence Programs. ($171,143 for 2004-2007.)
11. PI, "Theory and Applications of Nonsmooth Dynamical Systems: Stabilization, Differential Inclusions, and Hamilton-Jacobi Equations," NSF-National Academy of Sciences Collaboration in Basic Science and Engineering Program. ($8,200 for 2002-2003.)
12. State Research Grant: Sole PI, "Research in Nonlinear Control Systems Theory: Lyapunov Functions, Output Signals, and Stability Basins," Louisiana Board of Regents Support Fund Research Competitiveness Subprogram. (Proposal ranked #1 in state. $55,959 for 2003-2006.)
13. Other State Grants: Co-PI, "Enhancement of Control Theory at LSU" ($155,000 for 2005-2007) and "Interdisciplinary Education, Outreach, and Research in Control Theory at LSU" ($103,000 for 2002-2004), Louisiana Board of Regents Enhancement Program.
14. Grants from LSU: Co-Investigator (joint with Lead PI Li Chen and Co-Investigator Arnab Ganguly), "Stochastic Delay-Compensating Data-Driven Event-Triggered Feedback Control for Marine Robotics," LSU Office of Research and Economic Development Emerging Faculty Grant ($10,000 for 2022). PI (joint with Lead PI Michael Khonsari), "Rotor-Bearing Thermohydrodynamic Instability," LSU Council on Research Interdisciplinary Faculty Research Grant ($40,000 for 2005-2006). Sole PI, "Feedback Stabilization and Chemostats" ($5,000 for July 2007) and "Lyapunov Functions and Viscosity Solutions" ($5,000 for July 2002), LSU Council on Research Summer Stipend Program.

IV Other awards and honors

1. Elevated to Institute of Electrical and Electronics Engineers (IEEE) Senior Member.
2. Author of Article Selected for Inclusion in Special Issue of *European Journal of Control* Consisting of Best European Control Conference Papers (one paper in 2021 issue, two papers in 2022 issue).
3. Best Presentation Awards at American Control Conference in 2016 (for sessions Time Delay Systems I and Time Delay Systems III), 2014 (for sessions Delay Systems I-II), 2013 (for Supervisory Control and Emerging Control Theory Session), 2010 (for Biological Systems Session), 2007 (for Biochemical Reactors and Reaction Networks Session and Lyapunov-Based Stability of Nonlinear Systems Session), and 2006 (for Stability Analysis Session).
4. 2013 LSU Rainmaker Mid-Career Scholar Award in the Area of Science, Technology, Engineering, or Mathematics, LSU Office of Research and Economic Development, February 2014. [Sole awardee plaque.]
5. Flagship Faculty Honor, LSU Today Newsletter, LSU Office of Communications and University Relations, August 2013. [One of only two honorees from Department of Mathematics during 2008-2013.]
6. Appointed to Roy Paul Daniels Professorship, LSU College of Science, 2013. [Permanent Board of Regents Endowed Distinguished Professor appointment, in addition to promotion to the rank of full professor.]
7. One of Five Student Best Paper Award Finalists for 2011 American Control Conference, as Advisor for Aleksandra Gruszka. [Plaque for "On tracking for the PVTOL model with bounded feedbacks."]
8. Best Presentation Award for Stability Session at 2006 IEEE Conference on Decision and Control.
9. Best Student Paper Award, 38th IEEE Conference on Decision and Control, December 1999. [First place plaque for "On the Bellman equation for control problems with exit times and unbounded cost functionals."]
10. University and Louis Bevier Fellowship, Rutgers-New Brunswick, 1999–2000.
11. Awards at SUNY at Binghamton: Award for Academic Excellence - Harpur College, and Awards for Excellence in Economics and Excellence in Mathematical Sciences, May 1993. Elected to Phi Beta Kappa Honor Society, April 1993. Award for Outstanding Academic Achievement in Economics, May 1992.

V Publications

V.1 Research monograph

1. Malisoff, M., and F. Mazenc, *Constructions of Strict Lyapunov Functions*, Communications and Control Engineering Series, Springer-Verlag London Ltd., London, UK, 2009. ISBN: 978-1-84882-534-5.

V.2 Peer reviewed journal article submissions in review or revision

2. Malisoff, M., F. Mazenc, and C. Barbalata, "Event-triggered control under unknown input and unknown measurement delays using interval observers," submitted in August 2022, in review.

3. Mazenc, F., and M. Malisoff, "Almost finite-time observers for parameters and for state variables of nonlinear systems," submitted in July 2022, in revision.
4. Bhogaraju, I., J. Forestieri, M. Malisoff, and M. Farasat, "Delay-compensating stabilizing feedback controller for a grid-connected PV/hybrid energy storage system," submitted in March 2022, in revision.

V.3 Peer reviewed journal articles

5. Ito, H., M. Malisoff, and F. Mazenc, "Feedback control of isolation and contact for SIQR epidemic model via strict Lyapunov function," *Mathematical Control and Related Fields*, to appear.
6. Mazenc, F., M. Malisoff, C. Barbalata, and Z.-P. Jiang, "Subpredictor approach for event-triggered control of discrete-time systems with input delays," *European Journal of Control*, to appear.
7. Mazenc, F., and M. Malisoff, "ISS inequalities for vector versions of Halanay's inequality and of the trajectory-based approach," *European Journal of Control*, to appear.
8. Ito, H., M. Malisoff, and F. Mazenc, "Strict Lyapunov functions and feedback controls for SIR models with quarantine and vaccination," *Discrete and Continuous Dynamical Systems Series B*, 27(12):6969-6988, 2022.
9. Zuo, W., A. Chakravarthy, M. Malisoff, and Z. Chen, "Event-triggered control of robotic fish with reduced communication rate," *IEEE Robotics and Automation Letters*, 7(4):9405-9412, 2022.
10. Mazenc, F., and M. Malisoff, "New bounds for state transition matrices," *IEEE Control Systems Letters*, 6:2677-2682, 2022.
11. Mazenc, F., and M. Malisoff, "Almost finite-time observers for a family of nonlinear continuous-time systems," *IEEE Control Systems Letters*, 6:2593-2598, 2022.
12. Mazenc, F., and M. Malisoff, "Feedback stabilization and robustness analysis using bounds on fundamental matrices," *Systems & Control Letters*, 164(105212), 12pp., 2022.
13. Mazenc, F., M. Malisoff, and S.-I. Niculescu, "Sampled-data estimator for nonlinear systems with uncertainties and arbitrarily fast rate of convergence," *Automatica*, 142(110361), 10pp., 2022.
14. Mazenc, F., M. Malisoff, and C. Barbalata, "Event-triggered prediction-based delay compensation approach," *IEEE Control Systems Letters*, 6:2515-2520, 2022.
15. Mazenc, F., M. Malisoff, and M. Krstic, "Vector extensions of Halanay's inequality," *IEEE Transactions on Automatic Control*, 67(3):1453-1459, 2022.
16. Mazenc, F., M. Malisoff, C. Barbalata, and Z.-P. Jiang, "Event-triggered control for linear time-varying systems using a positive systems approach," *Systems & Control Letters*, 161(105131), 10pp., 2022.
17. Mazenc, F., M. Malisoff, and C. Barbalata, "Event-triggered control for continuous-time linear systems with a delay in the input," *Systems & Control Letters*, 159(105075), 10pp., 2022.
18. Mazenc, F., M. Malisoff, C. Barbalata, and Z.-P. Jiang, "Event-triggered control for discrete-time systems using a positive systems approach," *IEEE Control Systems Letters*, 6:1843-1848, 2022.
19. Mazenc, F., and M. Malisoff, "New versions of Halanay's inequality with multiple gain terms," *IEEE Control Systems Letters*, 6:1790-1795, 2022.
20. Mazenc, F., and M. Malisoff, "New finite-time and fast converging observers with a single delay," *IEEE Control Systems Letters*, 6:1561-1566, 2022.
21. Mazenc, F., M. Malisoff, C. Barbalata, and Z.-P. Jiang, "Event-triggered control using a positive systems approach," *European Journal of Control*, 62:63-68, 2021.
22. Bhogaraju, I., M. Farasat, M. Malisoff, and M. Krstic, "Sequential predictors for delay-compensating feedback stabilization of bilinear systems with uncertainties," *Systems & Control Letters*, 152(104933), 9pp., 2021.
23. Malisoff, M., and M. Krstic, "Multivariable extremum seeking with distinct delays using a one-stage sequential predictor," *Automatica*, 129(109462), 7pp., 2021.
24. Mazenc, F., M. Malisoff, and Z.-P. Jiang, "Reduced-order fast converging observers for systems with discrete measurements and measurement error," *Systems & Control Letters*, (150)104892, 9pp., 2021.
25. Burlion, L., V. Gibert, M. Malisoff, and F. Mazenc, "Controls for a nonlinear system arising in vision based landing of airliners," *International Journal of Robust and Nonlinear Control*, 31(4):1227-1244, 2021.
26. Mazenc, F., M. Malisoff, and M. Krstic, "Stability analysis using generalized sup-delay inequalities," *IEEE Control Systems Letters*, 5(4):1411-1416, 2021.
27. Mazenc, F., M. Malisoff, and M. Krstic, "Stability and observer designs using new variants of Halanay's inequality," *Automatica*, 123(109299), 9pp., 2021.

28. Mazenc, F., M. Malisoff, and M. Krstic, "Stability analysis for time-varying systems with asynchronous sampling using contractivity approach," *IEEE Control Systems Letters*, 5(1):49-54, 2021.
29. Mazenc, F., M. Malisoff, and I. Bhogaraju, "Sequential predictors for delay compensation for discrete time systems with time-varying delays," *Automatica*, 122(109188), 9pp., 2020.
30. Yao, N., M. Malisoff, and F. Zhang, "Contention-resolving model predictive control for coupled control systems with a shared resource," *Automatica*, 122(109219), 13pp., 2020.
31. Mazenc, F., S. Ahmed, and M. Malisoff, "Reduced order finite time observers and output feedback for time-varying nonlinear systems," *Automatica*, 119(109083), 7pp., 2020.
32. Mazenc, F., and M. Malisoff, "Continuous-discrete sequential observers for time-varying systems under sampling and input delays," *IEEE Transactions on Automatic Control*, 65(4):1704-1709, 2020.
33. Malisoff, M., "Tracking and parameter identification for model reference adaptive control," *International Journal of Robust and Nonlinear Control*, 30(4):1582-1606, 2020.
34. Burlion, L., M. Malisoff, and F. Mazenc, "Stabilization for a chain of saturating integrators arising in the visual landing of aircraft with sampling," *Systems & Control Letters*, 135(104574), 11pp., 2020.
35. Ahmed, S., M. Malisoff, and F. Mazenc, "Finite time estimation for time-varying systems with delay in the measurements," *Systems & Control Letters*, 133(104551), 9pp., 2019.
36. Weston, J., and M. Malisoff, "Sequential predictors under time-varying feedback and measurement delays and sampling," *IEEE Transactions on Automatic Control*, 64(7):2991-2996, 2019.
37. Mazenc, F., L. Burlion, and M. Malisoff, "Stabilization and robustness analysis for a chain of saturating integrators with imprecise measurements," *IEEE Control Systems Letters*, 3(2):428-433, 2019.
38. Mazenc, F., L. Burlion, and M. Malisoff, "Backstepping design for output feedback stabilization for a class of uncertain systems," *Systems & Control Letters*, 123:134-143, 2019.
39. Mazenc, F., S. Ahmed, and M. Malisoff, "Finite time estimation through a continuous-discrete observer," *International Journal of Robust and Nonlinear Control*, 28(16):4831-4849, 2018.
40. Mazenc, F., M. Malisoff, L. Burlion, and J. Weston, "Bounded backstepping control and robustness analysis for time-varying systems under converging-input-converging-state conditions," *European Journal of Control*, 42:15-24, 2018.
41. Mazenc, F., G. Robledo, and M. Malisoff, "Stability and robustness analysis for a multispecies chemostat model with delays in the growth rates and uncertainties," *Discrete and Continuous Dynamical Systems Series B*, 23(4):1851-1872, 2018.
42. Mazenc, F., M. Malisoff, and H. Ozbay, "Stability and robustness analysis for switched systems with time-varying delays," *Society for Industrial and Applied Mathematics (SIAM) Journal on Control and Optimization*, 56(1):158-182, 2018.
43. Mazenc, F., and M. Malisoff, "Stabilization and robustness analysis for time-varying systems with time-varying delays using a sequential subpredictors approach," *Automatica*, 82:118-127, 2017.
44. Mazenc, F., and M. Malisoff, "Stabilization of nonlinear time-varying systems through a new prediction based approach," *IEEE Transactions on Automatic Control*, 62(6):2908-2915, 2017.
45. Mazenc, F., M. Malisoff, and S.-I. Niculescu, "Stability and control design for time-varying systems with time-varying delays using a trajectory based approach," *SIAM Journal on Control and Optimization*, 55(1):533-556, 2017.
46. Mazenc, F., J. Harmand, and M. Malisoff, "Stabilization in a chemostat with sampled and delayed measurements and uncertain growth functions," *Automatica*, 78:241-249, 2017.
47. Mazenc, F., and M. Malisoff, "Extensions of Razumikhin's theorem and Lyapunov-Krasovskii functional constructions for time-varying systems with delay," *Automatica*, 78:1-13, 2017.
48. Varnell, P., M. Malisoff, and F. Zhang, "Stability and robustness analysis for human pointing motions with acceleration under feedback delays," *International Journal of Robust and Nonlinear Control*, 27(5):703-721, 2017.
49. Malisoff, M., R. Sizemore, and F. Zhang, "Adaptive planar curve tracking control and robustness analysis under state constraints and unknown curvature," *Automatica*, 75:133-143, 2017.
50. Mazenc, F., and M. Malisoff, "Reduction model approach for linear time-varying systems with input delays based on extensions of Floquet theory," *Systems & Control Letters*, 94:70-76, 2016.
51. Malisoff, M., and M. Krstic, "Stabilization and robustness analysis for a chain of exponential integrators using strict Lyapunov functions," *Automatica*, 68:184-193, 2016.
52. Mazenc, F., and M. Malisoff, "New control design for bounded backstepping under input delays," *Auto-*

matica, 66:48-55, 2016.

53. Mazenc, F., and M. Malisoff, "Stability analysis for time-varying systems with delay using linear Lyapunov functions and a positive systems approach," *IEEE Transactions on Automatic Control*, 61(3):771-776, 2016.
54. Karafyllis, I., M. Malisoff, M. de Queiroz, M. Krstic, and R. Yang, "Predictor-based tracking for neuromuscular electrical stimulation," *International Journal of Robust and Nonlinear Control*, 25(14):2391-2419, 2015.
55. Malisoff, M., and F. Zhang, "Robustness of adaptive control under time delays for three-dimensional curve tracking," *SIAM Journal on Control and Optimization*, 53(4):2203-2236, 2015.
56. Mazenc, F., and M. Malisoff, "Trajectory based approach for the stability analysis of nonlinear systems with time delays," *IEEE Transactions on Automatic Control*, 60(6):1716-1721, 2015.
57. Mazenc, F., V. Andrieu, and M. Malisoff, "Design of continuous-discrete observers for time-varying nonlinear systems," *Automatica*, 51(7):135-144, 2015.
58. Mazenc, F., and M. Malisoff, "Local stabilization of nonlinear systems through the reduction model approach," *IEEE Transactions on Automatic Control*, 59(11):3033-3039, 2014.
59. Mazenc, F., M. Malisoff, and S.-I. Niculescu, "Reduction model approach for linear time-varying systems with delays," *IEEE Transactions on Automatic Control*, 59(8):2068-2082, 2014.
60. Mazenc, F., M. Malisoff, and T. Dinh, "Robustness of nonlinear systems with respect to delay and sampling of the controls," *Automatica*, 49(6):1925-1931, 2013.
61. Malisoff, M., and F. Zhang, "Adaptive control for planar curve tracking under controller uncertainty," *Automatica*, 49(5):1411-1418, 2013.
62. Mazenc, F., and M. Malisoff, "Asymptotic stabilization for feedforward systems with delayed feedbacks," *Automatica*, 49(3):780-787, 2013.
63. Gruszka, A., M. Malisoff, and F. Mazenc, "Bounded tracking controllers and robustness analysis for UAVs," *IEEE Transactions on Automatic Control*, 58(1):280-287, 2013.
64. Gruszka, A., M. Malisoff, and F. Mazenc, "Tracking control and robustness analysis for PVTOL aircraft under bounded feedbacks," *International Journal of Robust and Nonlinear Control*, 22(17):1899-1920, 2012.
65. Malisoff, M., F. Mazenc, and F. Zhang, "Stability and robustness analysis for curve tracking control using input-to-state stability," *IEEE Transactions on Automatic Control*, 57(5):1320-1326, 2012.
66. Mazenc, F., and M. Malisoff, "Stability and stabilization for models of chemostats with multiple limiting substrates," *Journal of Biological Dynamics*, 6(2):612-627, 2012.
67. Mazenc, F., and M. Malisoff, "Discussion on *On a small gain theorem for ISS networks in dissipative Lyapunov form*," *European Journal of Control*, 17(4):367-369, 2011.
68. Mazenc, F., M. Malisoff, and M. de Queiroz, "Tracking control and robustness analysis for a nonlinear model of human heart rate during exercise," *Automatica*, 47(5):968-974, 2011.
69. Mazenc, F., M. Malisoff, and M. de Queiroz, "Uniform global asymptotic stability of adaptive cascaded nonlinear systems with unknown high-frequency gains," *Nonlinear Analysis: Theory, Methods, and Applications*, 74(4):1132-1145, 2011.
70. Mazenc, F., and M. Malisoff, "Remarks on output feedback stabilization of two-species chemostat models," *Automatica*, 46(10):1739-1742, 2010.
71. Mazenc, F., and M. Malisoff, "Stabilization of a chemostat model with Haldane growth functions and a delay in the measurements," *Automatica*, 46(9):1428-1436, 2010.
72. Mazenc, F., and M. Malisoff, "Strict Lyapunov function constructions under LaSalle conditions with an application to Lotka-Volterra systems," *IEEE Transactions on Automatic Control*, 55(4):841-854, 2010.
73. Mazenc, F., M. de Queiroz, and M. Malisoff, "Uniform global asymptotic stability of a class of adaptively controlled nonlinear systems," *IEEE Transactions on Automatic Control*, 54(5):1152-1158, 2009.
74. Mazenc, F., M. Malisoff, and J. Harmand, "Stabilization in a two-species chemostat with Monod growth functions," *IEEE Transactions on Automatic Control*, 54(4):855-861, 2009.
75. Mazenc, F., M. Malisoff, and O. Bernard, "A simplified design for strict Lyapunov functions under Matrosov conditions," *IEEE Transactions on Automatic Control*, 54(1):177-183, 2009.
76. Malisoff, M., F. Mazenc, and M. de Queiroz, "Tracking and robustness analysis for controlled microelectromechanical relays," *International Journal of Robust and Nonlinear Control*, 18(18):1637-1656, 2008.
77. Mazenc, F., M. Malisoff, and Z. Lin, "Further results on input-to-state stability for nonlinear systems with delayed feedbacks," *Automatica*, 44(9):2415-2421, 2008.

78. Malisoff, M., and F. Mazenc, "Constructions of strict Lyapunov functions for discrete time and hybrid time-varying systems," *Nonlinear Analysis: Hybrid Systems*, 2(2):394-407, 2008.
79. Mazenc, F., M. Malisoff, and J. Harmand, "Further results on stabilization of periodic trajectories for a chemostat with two species," *IEEE Transactions on Automatic Control*, 53(Special Issue on Systems Biology):66-74, 2008.
80. Mazenc, F., M. Malisoff, and P. De Leenheer, "On the stability of periodic solutions in the perturbed chemostat," *Mathematical Biosciences and Engineering*, 4(2):319–338, 2007.
81. Mazenc, F., and M. Malisoff, "Further results on Lyapunov functions for slowly time-varying systems," *Mathematics of Control, Signals, and Systems*, 19(1):1-21, 2007.
82. Mazenc, F., M. Malisoff, and M. de Queiroz, "Further results on strict Lyapunov functions for rapidly time-varying nonlinear systems," *Automatica*, 42(10):1663–1671, 2006.
83. Mazenc, F., M. de Queiroz, M. Malisoff, and F. Gao, "Further results on active magnetic bearing control with input saturation," *IEEE Transactions on Control Systems Technology*, 14(5):914–919, 2006.
84. Malisoff, M., M. Krichman, and E. Sontag, "Global stabilization for systems evolving on manifolds," *Journal of Dynamical and Control Systems*, 12(2):161–184, 2006.
85. Krastanov, M., M. Malisoff, and P. Wolenski, "On the strong invariance property for non-Lipschitz dynamics," *Communications on Pure and Applied Analysis*, 5(1):107–124, 2006.
86. Mazenc, F., and M. Malisoff, "Further constructions of control-Lyapunov functions and stabilizing feedbacks for systems satisfying the Jurdjevic-Quinn conditions," *IEEE Transactions on Automatic Control*, 51(2):360–365, 2006.
87. Malisoff, M., and P. De Leenheer, "A small-gain theorem for monotone systems with multi-valued input-state characteristics," *IEEE Transactions on Automatic Control*, 51(2):287–292, 2006.
88. Malisoff, M., and F. Mazenc, "Further remarks on strict input-to-state stable Lyapunov functions for time-varying systems," *Automatica*, 41(11):1973–1978, 2005.
89. Malisoff, M., "Further results on Lyapunov functions and domains of attraction for perturbed asymptotically stable systems," *Dynamics of Continuous, Discrete and Impulsive Systems Series A: Mathematical Analysis*, 12(2):193–225, 2005.
90. Malisoff, M., L. Rifford, and E. Sontag, "Global asymptotic controllability implies input-to-state stabilization," *SIAM Journal on Control and Optimization*, 42(6):2221–2238, 2004.
91. Malisoff, M., "Bounded-from-below solutions of the Hamilton-Jacobi equation for optimal control problems with exit times: Vanishing Lagrangians, eikonal equations, and shape-from-shading," *NoDEA Nonlinear Differential Equations and Applications*, 11(1):95–122, 2004.
92. Malisoff, M., "Further results on the Bellman equation for optimal control problems with exit times and nonnegative Lagrangians," *Systems & Control Letters*, 50(1):65–79, 2003.
93. Malisoff, M., "Viscosity solutions of the Bellman equation for exit time optimal control problems with vanishing Lagrangians," *SIAM Journal on Control and Optimization*, 40(5):1358–1383, 2002.
94. Malisoff, M., "Viscosity solutions of the Bellman equation for exit time optimal control problems with non-Lipschitz dynamics," *ESAIM: Control, Optimisation and Calculus of Variations*, 6:415–441, 2001.
95. Malisoff, M., and E. Sontag, "Universal formulas for feedback stabilization with respect to Minkowski balls," *Systems & Control Letters*, 40(4):247–260, 2000.

V.4 Peer reviewed conference papers

96. Schieni, R., C. Zhao, J. Barreira, M. Malisoff, and L. Burlion, "Quadrotor flight envelope protection while following high-speed trajectories: a reference governor approach," *Proceedings of the AIAA SciTech Forum (National Harbor MD, 23–27 January 2023)*, to appear.
97. Mazenc, F., and M. Malisoff, "Finite-time observers for parameters and state variables of nonlinear systems," in *Proceedings of the Joint 8th IFAC Symposium on System Structure and Control, 17th IFAC Workshop on Time Delay Systems, and 5th IFAC Workshop on Linear Parameter Varying Systems (Montreal, Canada, 27-30 September 2022)*, to appear.
98. Mazenc, F., and M. Malisoff, "New fixed time and fast converging reduced order observers," in *Proceedings of the 60th IEEE Conference on Decision and Control (Austin, TX, 13-15 December 2021)*, pp. 5453-5458.
99. Bhogaraju, I., M. Farasat, and M. Malisoff, "Sequential predictors for stabilization of bilinear systems under measurement uncertainty," in *Proceedings of the 60th IEEE Conference on Decision and Control (Austin, TX, 13-15 December 2021)*, pp. 4768-4773.

100. Mazenc, F., and M. Malisoff, "Feedback stabilization with discrete measurements using bounds on fundamental matrices," in *Proceedings of the 60th IEEE Conference on Decision and Control (Austin, TX, 13-15 December 2021)*, pp. 1814-1819.
101. Mazenc, F., M. Malisoff, C. Barbalata, and Z.-P. Jiang, "Event-triggered control for systems with state delays using a positive systems approach," in *Proceedings of the 60th IEEE Conference on Decision and Control (Austin, TX, 13-15 December 2021)*, pp. 552-557.
102. Hasan, A., I. Bhogaraju, M. Farasat, and M. Malisoff, "Lyapunov function-based stabilizing control scheme for wireless power transfer systems with LCC compensation network," in *Proceedings of the IEEE Applied Power Electronics Conference (Phoenix, AZ, 9-12 June 2021)*, pp. 694-699.
103. Mazenc, F., M. Malisoff, and M. Krstic, "Stability analysis using new variant of Halanay's inequality," in *Proceedings of the 24th International Symposium on Mathematical Theory of Networks and Systems*, *IFAC-PapersOnLine*, 54(9):783-786, 2021.
104. Mazenc, F., M. Malisoff, and Z.-P. Jiang, "Reduced order fast converging observer for systems with discrete measurements," in *Proceedings of the 24th International Symposium on Mathematical Theory of Networks and Systems*, *IFAC-PapersOnLine*, 54(9):219-224, 2021.
105. Malisoff, M., and M. Krstic, "Delayed Newton-based multivariable extremum seeking with sequential predictors," in *Proceedings of the IFAC World Congress 2020, Germany*, *IFAC-PapersOnLine*, 53(2):5381-5385, 2020.
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107. Mazenc, F., and M. Malisoff, "Sequential predictors for delay compensation for perturbed discrete time systems," in *Proceedings of the American Control Conference (Denver, CO, 1-3 July 2020)*, pp. 1696-1700.
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V.5 Other

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VI Inventions

1. "Delay-Compensating Event-Triggered Tracking Controllers for Underwater Robots," joint with Corina Barbalata, Zhong-Ping Jiang, and Frederic Mazenc, LSU Invention Disclosure LSU-2022-018, 2021.
2. "Predictor-Based Control of Grid-Tied Inverters," joint with Indra Bhogaraju, Mehdi Farasat, and Miroslav Krstic, LSU Invention Disclosure LSU-2021-026, 2020.
3. "Pointer Acceleration System Modeling," joint with Paul Varnell and Fumin Zhang, US Patent 10,579,166, Granted March 3, 2020.
4. "Method for Contention-Resolving Optimal Priority Assignment," joint with Ningshi Yao and Fumin Zhang, LSU Invention Disclosure LSU-2019-009, 2018.
5. "Control Method for Pointer Acceleration for Computer Mice or Other Interfaces," joint with Paul Varnell and Fumin Zhang, U.S. Provisional Patent No. 62/481,783, Filed April 5, 2017.

VII Talks

VII.1 Lecture series

1. Invited Speaker, "Stability analysis of switched systems with time-varying discontinuous delays" and "Contention resolving optimal priority assignment for event-triggered model predictive controllers" and "Stability and robustness analysis for a multi-species chemostat model with uncertainties" and "New prediction

approach for stabilizing time-varying systems under time-varying input delay" in Mini-Workshop on Control Theory, Department of Mechanical Engineering, University of South Florida, Tampa, FL, May 22, 2017.

2. Invited Speaker, "Adaptive planar curve tracking control with unknown curvature" (Presentation #1), "Matrosov's approach" (Department Seminar), "Lyapunov-Krasovskii functionals" (Presentation #2), and "Robust forward invariance" (Presentation #3), Department of Mechanical and Aerospace Engineering at University of Florida, Gainesville, FL, November 17-18, 2016. [Four Talks in Lecture Series "Constructions of strict Lyapunov functions: stability, robustness, delays, and state constraints".]
3. Speaker, "Constructions of strict Lyapunov functions: stability, robustness, delays, and state constraints," 3 Lecture Minicourse at 22nd International Symposium on Mathematical Theory of Networks and Systems, Minneapolis, MN, July 12, 2016.
4. Invited Principal Speaker, "Lyapunov functions, point stabilization, and strictification," 2 90-minute lectures at Workshop on Constructive Lyapunov Control and Strictification with Applications, Georgia Tech School of Electrical and Computer Engineering, Atlanta, GA, December 18, 2010.

VII.2 Other conference presentations

5. Speaker, "New finite-time and fast converging observers with a single delay" (in Estimation Session), "Event-triggered control for discrete-time systems using a positive systems approach" (in session Recent Advances in Event-Triggered Control), and "New versions of Halanay's inequality with multiple gain terms" (in Delay Systems Session), 2022 American Control Conference, Atlanta, GA, June 8-10, 2022.
6. Invited Speaker, "Output feedback stabilization of control systems for the visual landing of aircraft" (in Special Session on Real World Applications of Mathematics), "Delay-compensating event-triggered control using interval observers" (in Special Session on Analysis of and Recent Advances in Difference, Differential, and Dynamic Equations with Applications), and "Strict Lyapunov functions and feedback controls for SIR models with quarantine and vaccination" (in Special Session on Mathematical Models of Diseases), Joint Mathematics Meetings, April 6-9, 2022 Virtual Conference.
7. Speaker, "Sequential predictors for stabilization of bilinear systems under measurement uncertainty" (in session Delay Systems I), "Event-triggered control for systems with state delays using a positive systems approach" (invited talk in session Event-Triggered and Self-Triggered Control I), "New fixed time and fast converging reduced order observers" (in session Observers for Nonlinear Systems II), and "Feedback stabilization with discrete measurements using bounds on fundamental matrices" (in session Stability of Linear Systems), 60th IEEE Conference on Decision and Control, December 13-17, 2021 [Virtual Conference].
8. Invited Speaker, "Event-triggered control for time-varying systems using a positive systems approach," Minisymposium on Recent Advances in Event-Triggered Control Part I, SIAM Conference on Control and Its Applications July 19-21, 2021 [Remote talk given by Zoom].
9. Speaker, "Event-triggered control using a positive systems approach," Event-Triggered and Self-Triggered Control Session, European Control Conference, June 29-July 2, 2021 [Remote talk given by Zoom].
10. Speaker, "Stability analysis using generalized sup-delay inequalities," Stability Analysis Session, American Control Conference, May 25-28, 2021 [Remote talk given by Zoom].
11. Invited Speaker, "Feedback stabilization of control systems arising in the visual landing of aircraft," AMS Special Session on Advances and Applications in Integral and Differential Equations, Joint Mathematics Meetings, January 6-9, 2021 [Remote talk given by Zoom].
12. Speaker, "Multivariable extremum seeking with sequential predictors," Theory and Applications of Extremum Seeking Control Session, 1st Virtual IFAC World Congress, July 13-17, 2020 [Remote talk given by Zoom].
13. Invited Speaker, "Delayed multivariable extremum seeking with sequential predictors," Estimation and Control of PDEs Session, American Control Conference, Denver, CO, July 1-3, 2020 [Remote talk given by Zoom].
14. Speaker, "Sampled-data estimator for nonlinear systems with arbitrarily fast rate of convergence" and "Sequential predictors for delay compensation for perturbed discrete time systems," Delay Systems Session, American Control Conference, Denver, CO, July 1-3, 2020 [Remote talks given by Zoom].
15. Invited Speaker, "Stability and robustness analysis for switched systems with time-varying delays" (in Special Session on Fractal Geometry and Dynamical Systems) and "Stability and robustness analysis for a multi-species chemostat model with delays" (in Special Session on Applications of Differential Equations

in Mathematical Biology), AMS Fall Southeastern Sectional Meeting, University of Florida, Gainesville, FL, November 2-3, 2019.

16. Speaker, "Output feedback stabilization by reduced order finite time observers using a trajectory based approach" (in session Observers for Nonlinear Systems II), "Sequential predictors for linear time-varying systems with delays in the vector field and in the input" (in session Delay Systems as Invited Substitute Talk for Position ThC13.1 by Invitation of Session Chair and Co-Chair), and "On average values of time-varying delays and a new representation of systems with time-varying delays" (in session Delay Systems), 2019 American Control Conference, Philadelphia, PA, July 10-12, 2019.
17. Speaker, "Reduced order finite time observers for time-varying nonlinear systems" (in session Observers for Nonlinear Systems III) and "Sequential predictors for linear time-varying systems with delays in the vector field and in the input" (in session Delay Systems II), 57th IEEE Conference on Decision and Control, Miami Beach, FL, December 17-19, 2018.
18. Speaker, "Continuous-discrete sequential observers under sampling and input delays" (in session Observers for Linear Systems) and "Tracking, parameter identification, and convergence rates for model reference adaptive control" (in session Uncertain Systems III), American Control Conference, Milwaukee, WI, June 27-29, 2018.
19. Invited Speaker, "Tracking and parameter identification for model reference adaptive control" (in Special Session on Parameter Analysis and Estimation in Applied Dynamical Systems), "Stability and robustness analysis for human pointing motions with acceleration under feedback delays" (in Special Session on Advances in Integral and Differential Equations), and "Stability and control design for time-varying systems with time-varying delays using a trajectory-based approach" (in Special Session on Differential Equations and Applications), AMS Spring Central Sectional Meeting, Ohio State University, Columbus, OH, March 17-18, 2018.
20. Invited Speaker, "Sequential predictors for input delay compensation in control systems," Special Session on Advances in Difference, Differential, and Dynamic Equations with Applications, 2018 Joint Mathematics Meetings, San Diego, CA, January 10-13, 2018.
21. Invited Speaker, "Adaptive tracking and parameter identification for nonlinear control systems" and "Stability and robustness analysis for a multispecies chemostat model with delays in the growth rates and uncertainties," 2018 FIU Applied Mathematics Conference, Florida International University, Miami, FL, January 3-6, 2018.
22. Invited Speaker, "Robustness analysis for a multispecies chemostat model with delays in the growth rates and uncertainties" (in Special Session on Differential Equations in Mathematical Biology) and "Bounded backstepping for nonlinear control systems" (in Special Session on Fractal Geometry, Dynamical Systems, and Their Applications), AMS Fall Southeastern Sectional Meeting, University of Central Florida, Orlando, FL, September 23-24, 2017.
23. Speaker, "Stability and robustness analysis for a multi-species chemostat model with uncertainties" (in session Biological Systems) and "Stability analysis of switched systems with time-varying discontinuous delays" (in session Switched Systems II), American Control Conference, Seattle, WA, May 24-26, 2017.
24. Invited Speaker, "Stabilization in a chemostat with sampled and delayed measurements" (in Special Session on Analytical and Computational Studies in Mathematical Biology) and "Extension of Razumikhin's theorem for time-varying dynamical systems with delays" (in Special Session on Nonlinear Systems and Applications), Joint Mathematics Meetings, Atlanta, GA, January 4-7, 2017.
25. Speaker, "New prediction approach for stabilizing time-varying systems under time-varying input delay" (in session Delay Systems IV) and "Robustness of adaptive control for three-dimensional curve tracking under state constraints: effects of scaling control terms" (in session Robust Adaptive Control), 55th IEEE Conference on Decision and Control, Las Vegas, NV, December 12-14, 2016.
26. Speaker, "Extension of Razumikhin's theorem for time-varying systems with delay" (in session Time Delay Systems I), "Adaptive planar curve tracking control with unknown curvature" (in session Adaptive Control II), and "Stabilization in a chemostat with sampled and delayed measurements" (in session Time Delay Systems III), 2016 American Control Conference, Boston, MA, July 6-8, 2016.
27. Speaker, "Robustness of adaptive control under time delays for three-dimensional curve tracking," Special Session on Variational Analysis, Optimization, and Control III, AMS Central Fall Sectional Meeting, Chicago, IL, October 2-4, 2015.
28. Invited Guest Speaker, "Adaptive control with parameter identification with an application to curve track-

ing," Georgia Tech Decision and Control Student Symposium, Atlanta, GA, April 24, 2015.

29. Speaker, "New technique for stability analysis for time-varying systems with delay," Delay Systems Session II, 53rd IEEE Conference on Decision and Control, Los Angeles, CA, December 15-17, 2014.
30. Speaker, "Stability analysis for neutral and time-varying systems using linear Lyapunov functionals and a positive systems approach," Time Delay Systems and Stability Session, ASME Dynamic Systems and Control Conference, San Antonio, TX, October 22-24, 2014.
31. Invited Speaker, "Predictor-based tracking for neuromuscular electrical stimulation," Minisymposium on Engineering Applications of Mathematics, SIAM Annual Meeting, Chicago, IL, July 7-11, 2014.
32. Speaker, "Reduction model method for local stabilization of time-varying nonlinear systems with input delays, structured nonlinearities, and uncertainties" and "A new tracking controller for neuromuscular electrical stimulation under input delays: Case study in prediction" (both in Delay Systems Session I) and "Stabilization of time-varying nonlinear systems with time delays using a trajectory based approach" (in Delay Systems Session II), American Control Conference, Portland, OR, June 4-6, 2014.
33. Invited Speaker, "Asymptotic stabilization for feedforward systems with delayed feedbacks" (in Minisymposium on Nonlinear Systems Part I of II) and "Robustness of nonlinear systems with respect to delay and sampling of the controls" (in Minisymposium on Time Delay Systems with Applications, as substitute for Frédéric Mazenc), SIAM Conference on Control and Its Applications, San Diego, CA, July 8-10, 2013.
34. Speaker, "Uniform global asymptotic stability for nonlinear systems under input delays and sampling of the controls" (in Stability of Nonlinear Systems Session II) and "Robustness of a class of three-dimensional curve tracking control laws under time delays and polygonal state constraints" (in Supervisory Control and Emerging Control Theory Session), American Control Conference, Washington, DC, June 17-19, 2013.
35. Speaker, "Asymptotic stabilization for feedforward systems with delayed feedbacks," Special Session on Control Theory and Qualitative Analysis of Partial Differential Equations, 2013 AMS Spring Central Section Meeting, Ames, IA, April 27-28, 2013.
36. Invited Speaker, "Control and robustness analysis for curve tracking with unknown control gains," Special Session on Theory and Interdisciplinary Applications of Dynamical Systems, 2013 Joint Mathematics Meetings, San Diego, CA, January 9-12, 2013.
37. Speaker, "Tracking controllers and robustness analysis for UAVs," Special Session on Nonlinear Dynamical Systems and Applications IV, AMS Spring Central Section Meeting, Lawrence, KS, March 30-April 1, 2012.
38. Invited Speaker, "Stability and stabilization for chemostat models: A survey," Special Session on Recent Advances in Mathematical Biology, Ecology, and Epidemiology III, 2012 Joint Mathematics Meetings, Boston, MA, January 4-7, 2012.
39. Speaker, "On stability and stabilization for chemostats with many limiting nutrients," Biological Systems Session II, 50th IEEE Conference on Decision and Control and European Control Conference, Orlando, FL, December 12-15, 2011.
40. Invited Speaker, "Adaptive tracking and parameter estimation with unknown high frequency gains: A case study in strictification," Minisymposium on Recent Developments in Adaptive Control with Applications, SIAM Conference on Control and Its Applications, Baltimore, MD, July 25-27, 2011.
41. Speaker, "Input-to-state stability for curve tracking control: A constructive approach," Stability of Nonlinear Systems Session, 2011 American Control Conference, San Francisco, CA, June 29-July 1, 2011.
42. Invited Poster Presenter, "Robotic methods for surveying the impacts of oil spills," Deepwater Horizon Oil Spill Conference: Research from the Four University Consortium and Louisiana Universities Marine Consortium (LUMCON), LSU, April 29, 2011.
43. Invited Speaker, "Uniform global asymptotic stability of adaptive cascaded nonlinear systems with unknown high-frequency gains" (in Special Session on Control Systems and Signal Processing) and "Controlling human heart rate response during treadmill exercise" (in Special Session on Advances in Biomedical Mathematics), AMS Spring Southeastern Sectional Meeting, Statesboro, GA, March 12-13, 2011.
44. Invited Speaker, "Adaptive tracking and estimation for nonlinear control systems," AMS-SIAM Special Session on Control and Inverse Problems for Partial Differential Equations, Joint Mathematics Meetings, New Orleans, LA, January 6-9, 2011.
45. Invited Speaker, "Recent results on control problems for chemostats," SIAM Minisymposium on Applications of Difference and Differential Equations in Ecology and Epidemiology, Joint Mathematics Meetings, New Orleans, LA, January 6-9, 2011. Also given in Special Session on Control Systems and Signal Processing, AMS Spring Southeastern Sectional Meeting, Statesboro, GA, March 12-13, 2011.

46. Speaker, "Further results on robust output feedback control for the chemostat dynamics" (in Biological and Biomedical Systems Session I) and "Model-based nonlinear control of the human heart rate during treadmill exercising" (in Biological and Biomedical Systems Session II), 49th IEEE Conference on Decision and Control, Atlanta, GA, December 15-17, 2010.
47. Invited Speaker, "Tracking control and robustness analysis for a nonlinear model of human heart rate during exercise" (in Special Session on Mathematical Models in Biology and Medicine) and "Stabilization of a chemostat model with Haldane growth functions and a delay in the measurements" (in Special Session on Differential Equations and Applications to Physics and Biology), AMS Fall Southeastern Sectional Meeting, Richmond, VA, November 6-7, 2010.
48. NSF RAPID Awardee Poster Presenter, "Autonomous control and sensing algorithms for surveying the impacts of oil spills on coastal environments," Collaborative Scientific Research Opportunities Relative to the Gulf Oil Spill, New Orleans, LA, November 1-2, 2010.
49. Invited Speaker, "On uniform global asymptotic stability of adaptive systems with unknown control gains," New Directions in Stability and Stabilization Session, American Control Conference, Baltimore, MD, June 30-July 2, 2010.
50. Speaker, "Stabilization of two-species chemostats with delayed measurements and Haldane growth functions," Biological Systems Session, American Control Conference, Baltimore, MD, June 30-July 2, 2010.
51. Speaker, "Strict Lyapunov function constructions under LaSalle conditions with an application to Lotka-Volterra systems," Special Session on Dynamical Systems, AMS Fall Southeastern Sectional Meeting, Boca Raton, FL, October 30-November 1, 2009.
52. Speaker, "Lyapunov functions under LaSalle conditions with an application to Lotka-Volterra systems," Stability of Nonlinear Systems Session, American Control Conference, St. Louis, MO, June 10-12, 2009.
53. Speaker, "Lyapunov functions and robustness analysis under Matrosov conditions with an application to biological systems" and "Remarks on tracking and robustness analysis for MEM relays," Stability of Nonlinear Systems-Applications Session, American Control Conference, Seattle, WA, June 11-13, 2008.
54. Speaker, "Stabilization and robustness analysis for a chemostat model with two species," Special Session on Mathematical Modeling in Biology IV, AMS Spring Southeastern Sectional Meeting, Baton Rouge, LA, March 28-30, 2008.
55. Speaker, "Stabilization and robustness analysis for a chemostat model with two species and Monod growth rates via a Lyapunov approach," Control of Biological Systems Session, 46th IEEE Conference on Decision and Control, New Orleans, LA, December 12-14, 2007.
56. Speaker, "Stabilization of a periodic trajectory for a chemostat with two species," Biochemical Reactors and Reaction Networks Session, American Control Conference, New York, NY, July 11-13, 2007. Also given at Workshop on Control Theory and Mathematical Biology, LSU, July 26-27, 2007.
57. Speaker, "On input-to-state stability for nonlinear systems with delayed feedbacks," Lyapunov-Based Stability of Nonlinear Systems Session, American Control Conference, New York, NY, July 11-13, 2007.
58. Speaker, "On strict Lyapunov functions for rapidly and slowly time-varying nonlinear systems" and "Further results on the stability of periodic solutions in the chemostat," Louisiana Workshop on Mathematical Control Theory, LSU, May 22-31, 2007.
59. Invited Speaker,"On the stability of periodic solutions in the perturbed chemostat," SIAM Minisymposium on Mathematical Modeling of Complex Systems in Biology, Joint Mathematical Meetings, New Orleans, LA, January 5-8, 2007.
60. Speaker, "Lyapunov function constructions for slowly time-varying systems" (in Stability Session) and "Control-Lyapunov functions for hybrid time-varying systems" (in Nonlinear and Hybrid Control Session), 45th IEEE Conference on Decision and Control, San Diego, CA, December 13-15, 2006.
61. Poster Presenter, "Stabilizing a periodic solution in the chemostat: A case study in tracking," Tracking Session, 45th IEEE Conference on Decision and Control, San Diego, CA, December 13-15, 2006.
62. Speaker, "On strict Lyapunov functions for rapidly time-varying nonlinear systems," Stability Analysis Session, American Control Conference, Minneapolis, MN, June 14-16, 2006.
63. Invited Speaker, "Strict Lyapunov functions for discrete time and hybrid time-varying systems," International Conference on Hybrid Systems and Applications, University of Louisiana at Lafayette, May 22-26, 2006.
64. Speaker, "On strict Lyapunov functions for discrete time, continuous time, and hybrid time-varying systems," Louisiana Workshop on Mathematical Control Theory, LSU, May 16-25, 2006.

65. Invited Speaker, "Global stabilization for systems evolving on manifolds" and "Further constructions of strict Lyapunov functions for time-varying systems" (both in Minisymposium on Control of Nonlinear Systems) and "A small-gain theorem for monotone systems with multi-valued input-state characteristics" (in Minisymposium on Monotone Systems and Their Applications), SIAM Conference on Control and Its Applications, New Orleans, LA, July 11-14, 2005.
66. Speaker, "Further constructions of strict Lyapunov functions for time-varying systems," Stability of Nonlinear Systems I, American Control Conference, Portland, OR, June 8-10, 2005.
67. Invited 45-Minute Lecture, "Asymptotic controllability and input-to-state stabilization: The effect of actuator errors," Special Session on Variational Analysis and Applications, Fourth World Congress of Nonlinear Analysts, Orlando, FL, June 30-July 7, 2004.
68. Speaker, "Remarks on input-to-state stabilization," Louisiana Conference on Mathematical Control Theory, LSU, April 10-13, 2003. Also given at Rutgers Nonlinear Control Workshop, Rutgers University Department of Mathematics, August 4-8, 2003.
69. Speaker, "Viscosity solutions of the Bellman equation for perturbed optimal control problems with exit times" (in session Optimization Methods in Control II) and "Viscosity solutions of the Bellman equation for infinite horizon optimal control problems with negative instantaneous costs" (invited talk in session Nonsmooth Analytic Methods in Control Theory I), 41st IEEE Conference on Decision and Control, Las Vegas, NV, December 10-13, 2002.
70. Speaker, "Further results on the Bellman equation for optimal control problems with exit times," Differential Equations Weekend, University of Memphis, September 28, 2002.
71. Invited Speaker, "Further results on the Bellman equation for optimal control problems with exit times," Minisymposium on Nonlinear Systems and Viscosity Solutions, SIAM Conference on Control and Its Applications, San Diego, CA, July 11-14, 2001.
72. Invited Speaker, "Recent results on viscosity solutions of the Bellman equation for optimal control problems with exit times," Special Session on Optimal Control, Calculus of Variations, and Nonsmooth Analysis, AMS Spring Central Section Meeting, Lawrence, KS, March 30-31, 2001.
73. Speaker, "A remark on the Bellman equation for optimal control problems with exit times and noncoercing dynamics" (in Optimal Control and Optimization Session) and "On the Bellman equation for control problems with exit times and unbounded cost functionals" (invited talk in Optimal Control Session I), 38th IEEE Conference on Decision and Control, Phoenix, AZ, December 7-10, 1999.
74. Speaker, "A new result for exit time control problems with critical growth dynamics," Robust Control and Decision Making Session, 37th Annual Allerton Conference on Communication, Control, and Computing, University of Illinois, Monticello, IL, September 22-24, 1999.
75. Speaker, "Universal formulas for CLF's with respect to Minkowski balls," Nonlinear Stabilization Session, American Control Conference, San Diego, CA, June 2-4, 1999.

VII.3 Other talks

76. Invited Speaker, "Event-triggered control using a positive systems approach." Given as University of Maryland Baltimore County Department of Mathematics and Statistics Applied Mathematics Colloquium (February 18, 2022 Google Meet remote talk) and North Carolina State University Department of Mathematics Differential Equations and Nonlinear Analysis Seminar (September 7, 2022 Zoom remote talk).
77. Invited Nonlinear Control and Robotics Group Seminar, "Stability analysis of switched systems with time-varying discontinuous delays," Department of Mechanical and Aerospace Engineering, University of Florida, Gainesville, FL, November 4, 2019.
78. Invited Seminar Speaker, "Adaptive tracking and parameter identification for model reference adaptive control," Ohio State University Department of Electrical and Computer Engineering, Columbus, OH, March 19, 2018.
79. Invited Department Seminar Speaker, "Adaptive tracking and parameter identification." Given in University of Nevada, Reno Department of Mechanical Engineering (January 24, 2018), Lehigh University Department of Mechanical Engineering and Mechanics (Bethlehem, PA, February 9, 2018), Florida International University Department of Mathematics and Statistics (Miami, FL, February 27, 2018), Rutgers University Department of Mechanical and Aerospace Engineering (Piscataway, NJ, Remote Talk, April 22, 2020), and Georgia Institute of Technology School of Mathematics (Atlanta, GA, Applied and Computational Mathematics Remote Seminar, May 11, 2020).

80. Invited Speaker, "Delay compensation in control systems." Given as Department Seminar in Department of Mechanical and Aerospace Engineering at University of California San Diego on January 12, 2018, and as Remote International Seminar in Department of Mechanical and Process Engineering at Technische Universitat Kaiserslautern on October 16, 2020.
81. Invited Differential Equations Seminar, "Stabilization in a chemostat with sampled and delayed measurements," Department of Mathematics, University of Tennessee, Knoxville, TN, October 12, 2017.
82. Invited Speaker "Delay compensation in control systems," Fall 2017 Seminar Series, Department of Electrical and Computer Engineering, University of Central Florida, Orlando, FL, September 22, 2017.
83. Speaker, "Matrosov's approach," Differential Equations Seminar, Department of Mathematics and Statistics, University of South Florida, Tampa, FL, April 21, 2017.
84. Technical Presentation, "Feedback control under input delays." Given in Department of Mathematical Sciences at University of Alabama in Huntsville (April 18, 2017) and Department of Mathematical Sciences at University of Massachusetts Lowell (March 26, 2018).
85. William Maxwell Reed Seminar, "Adaptive tracking and parameter identification: theory and marine robotic applications," Department of Mechanical Engineering, University of Kentucky, Lexington, KY, February 17, 2017.
86. Invited Seminar Speaker, "Stabilization and robustness analysis under feedback delays," NSF FREEDM Systems Center, North Carolina State University, Raleigh, NC, November 5, 2015.
87. Invited Colloquium Speaker, "Systems and control: an introduction and a marine robotics application," Department of Mathematics and Statistics, Georgia State University, Atlanta, GA, April 23, 2015.
88. Invited Speaker, "Tracking control for neuromuscular electrical stimulation," Applied Mathematics Colloquium, Department of Mathematics and Statistics, University of Maryland, Baltimore County, March 4, 2015. Also presented as talk in Spring 2015 Seminar Series Presented by ECE Division in Department of Electrical Engineering and Computer Science at University of Central Florida in Orlando (January 26, 2015), Joint Differential Equations and Mechanical Engineering Seminar at University of South Florida in Tampa, FL (January 30, 2015), Applied and Computational Mathematics Seminar at Georgia Institute of Technology School of Mathematics (April 20, 2015), and Department Seminar in Department of Electrical Engineering and Computer Science at Northwestern University in Evanston, IL (October 2, 2015).
89. Invited Graduate Seminar Speaker, "Curve tracking for marine robots: A case study in feedback control," Department of Electrical and Computer Engineering, University of Texas at San Antonio, February 21, 2014. Also presented as Department Seminar in Department of Electrical Engineering and Computer Science at Northwestern University in Evanston, IL on July 8, 2014.
90. Invited Speaker, "Asymptotic stabilization for feedforward systems with delayed feedbacks," Cymer Center for Control Systems and Dynamics, University of California at San Diego, January 11, 2013.
91. Invited Seminar Speaker, "Tracking and robustness analysis for UAVs under input constraints," Georgia Tech School of Aerospace Engineering, Atlanta, GA, May 29, 2012.
92. Invited Controls Seminar Speaker, "Adaptive control for curve tracking under controller uncertainty: A case study in strictification," Georgia Tech, Atlanta, GA, May 23, 2012.
93. Invited Colloquium Speaker, "Adaptive tracking and parameter identification for nonlinear control systems." Given as Department Colloquium in Department of Mathematical Sciences at University of Texas at Dallas (Richardson, TX, February 16, 2012) and Applied Mathematics Colloquium in Department of Mathematics at North Carolina State University (Raleigh, NC, November 4, 2015).
94. Invited Controls Seminar Speaker, "Lyapunov functions, point stabilization, and strictification," University of Michigan College of Engineering, Ann Arbor, MI, October 7, 2011.
95. Invited Speaker, "Stability and robustness analysis for curve tracking control using input-to-state stability," Georgia Tech, Savannah, GA, March 14-15, 2011.
96. Invited Colloquium Speaker, "Viscosity solutions of the Bellman equation for exit time optimal control problems." Given at University of Texas at Arlington Department of Mathematics (February 26, 2001), Boise State University Department of Mathematics (Boise, ID, March 9, 2001), LSU Department of Mathematics (Baton Rouge, LA, April 9, 2001), and University of North Florida Department of Mathematics and Statistics (Jacksonville, FL, April 18, 2001).
97. Invited Colloquium Speaker, "Recent results on the Bellman equation for optimal control problems with exit times," Department of Computing and Mathematical Sciences, TAMU-CC, May 16, 2000.

VIII Service

1. Member, Land Acknowledgement Think Tank, LSU Office of Diversity, Equity and Inclusion, 2022.
2. Member, Search Committees for Assistant Director of Asian and Native American Affairs (Fall 2021) and Assistant Director of Inclusive Programming and Mentoring (Spring 2022), LSU Office of Multicultural Affairs.
3. Associate Editor for *Asian Journal of Control* (2017-), *Discrete and Continuous Dynamical Systems Series B* (2018-), *European Journal of Control* (2019-), *Journal of Control and Decision* (2020-), *SIAM Conference on Control and Its Applications* (2019, 2021), and *SIAM Journal on Control and Optimization* (Appointed to 3-year terms 2014-2016, 2017-2019, and 2020-2022). Past Editorial Board Member for IEEE Control Systems Society Conference Editorial Board (2008-2011), *Automatica* (2008-2011), *IEEE Transactions on Automatic Control* (2011-2015), *International Journal of Differential Equations* (2008-2009), International Symposium on Mathematical Theory of Networks and Systems (2018), *Mathematical Methods in the Applied Sciences* (2010-2011), *Mathematical Problems in Engineering* (2008-2009), and *Systems and Control Letters* (2008-2014).
4. Member, 4th Kimura Best Paper Award Selection Committee, *Asian Journal of Control*, 2021.
5. Referee for journals *ASME Journal of Dynamic Systems, Measurement and Control*; *Automatica*; *Differential and Integral Equations*; *Differential Equations and Nonlinear Mechanics*; *European Journal of Control*; *ESAIM: Modélisation Mathématique et Analyse Numérique*; *IEEE/ASME Transactions on Mechatronics*; *IEEE Control Systems Letters*; *IEEE Control Systems Magazine*; *IEEE Transactions on Automatic Control*; *IEEE Transactions on Circuits and Systems I*; *IEEE Transactions on Control Systems Technology*; *International Journal of Adaptive Control and Signal Processing*; *International Journal of Control*; *International Journal of Non-Linear Mechanics*; *International Journal of Robust and Nonlinear Control*; *Journal of Applied Mathematics and Computing*; *Journal of Dynamics and Differential Equations*; *Journal of Mathematical Analysis and Applications*; *Journal of Mathematical Biology*; *Mathematical Biosciences and Engineering*; *Mathematical Control and Related Fields*; *Mathematical Methods in the Applied Sciences*; *Mathematics of Control, Signals, and Systems*; *Nonlinear Analysis: Hybrid Systems*; *Nonlinear Analysis: Theory Methods and Applications*; *SIAM Journal on Control and Optimization*; and *Systems and Control Letters*.
6. Referee for proceedings of IEEE Conference on Decision and Control, American Control Conference, IFAC Symposium on Nonlinear Control Systems, 14th Mediterranean Conference on Control and Automation, 32nd Conference of the IEEE Industrial Electronics Society, European Control Conference, 17th IFAC World Congress, IEEE Multi-Conference on Systems and Control, Joint IFAC Symposium on Mechatronic Systems, and IFAC Symposium on Nonlinear Control Systems.
7. Memberships in Conference Committees: Program Committee for SIAM Conference on Control and Its Applications (2019, 2021). Global Organizing Committee for World Congress of Nonlinear Analysts, 2008. International Program Committee for Mediterranean Conference on Control and Automation, 2006.
8. Co-Organizer (with Maurice Heemels, Cameron Nowzari, and Ningshi Yao) for Invited Session "Recent Advances in Event-Triggered Control," American Control Conference (2022). Co-Organizer (with Tan Cao, Boris Mordukhovich, and Kyriakos Vamvoudakis) for Invited Sessions "Learning-Based Control and Sweeping Processes I-II," 60th IEEE Conference on Decision and Control (2021) [Presented by Zoom]. Co-Organizer (with Fumin Zhang) for Minisymposia "Recent Advances in Event-Triggered Control Parts I-II," SIAM Conference on Control and Its Applications (2021) [Presented by Zoom]. Co-Organizer (with Xiaobo Tan) for Minisymposium "Marine Robotic Controls," SIAM Conference on Control and Its Applications (2013). Co-Organizer (with Hiroshi Ito) for Invited Session "New Directions in Stability and Stabilization," American Control Conference (2010). Co-Organizer for Minisymposia "Monotone Systems and their Applications" (with Patrick De Leenheer) and "Control of Nonlinear Systems" (with William McEneaney) at SIAM Conference on Control and Its Applications (2005). Co-Chair and Organizer (with Chair and Co-Organizer Peter Wolenski) for Invited Sessions "Nonsmooth Analytic Methods in Control Theory I-II," 41st IEEE Conference on Decision and Control (2002). Co-Organizer (with Peter Wolenski) for "Special Sessions on Optimal Control, Calculus of Variations, and Nonsmooth Analysis I-IV," AMS Spring Central Section Meeting (2001).
9. NSF Directorate for Engineering Proposal Review Panels: Power, Control, and Adaptive Networks Program (2007, 2009). Energy, Power, and Adaptive Systems Program (2012). Cyber-Physical Systems Program (2014, 2017, 2019, 2020). Energy, Power, Control, and Networks Program (2015). Dynamics,

Control, and System Diagnostics Program (2015).

10. Reviewer for AFOSR Dynamics and Control Program, Icelandic Research Fund (2018), Israel Science Foundation (2022), MathSciNet, NSF DMS Applied Mathematics Program, Promotion Candidate Evaluation for University of Maryland Baltimore County Department of Mathematics and Statistics (2018) and for University of New Hampshire Department of Electrical and Computer Engineering (2019), SIAM Book Proposal, US Civilian Research and Development Foundation, and US-Israel Binational Science Foundation.
11. Volunteer: LSU Hurricane Gustav Field Hospital (September 2008), College of Science Faculty Representative at LSU STRIPES First Year Student Orientation (August 2014), Lead Judge for LSU Undergraduate Research Conference (October 2014), LSU Office of Multicultural Affairs Genesis Mentor (2019 and 2021).
12. College Service: Member, College of Arts and Sciences Faculty Senate, 2006-2009 [Member (2006-2009) and Chair (2007-2009) of Academic Freedom and Scholarship Committee. Member of Academic Oversight Committee, 2007-2009. Second Vice-President, 2007-2009]. College of Science Diversity Committee [Member (2016-2018), Chair (2017-2018), and Ex-Officio Member (2018-2019)]. College of Science Policy Committee [Member, 2019-2021].
13. LSU Department Service: Member, Internal Review Committee, 2002. Member, Executive Committee, 2002-2004, 2008-2010, and 2017-2020. Member, Graduate Committee, 2004-2006. Member, Senior Math Award Committee, 2008-2010. Member, Mentoring Committee (2009-2010) and Promotion and Tenure Committee (2010) for Hongyu He. Member, Porcelli Lecture and Scholarship Committee, 2012–. Control and Optimization Seminar Co-Organizer (with Hongchao Zhang), 2021-.
14. Department Committees at TAMU-CC: Chair of Course Committee on Calculus III, Advanced Calculus, Differential Equations, Numerical Analysis, and Real Analysis; and of Course Committee on Foundations of Higher Mathematics; and Member of Course Committee on Calculus I-II and Department of Computing and Mathematical Sciences Assessment Committee, Fall 2000-Spring 2001.

IX Advising of students and teaching

1. Undergraduate Courses Taught: Calculus II (Rutgers-New Brunswick); Precalculus, Calculus I, Linear Algebra (TAMU-CC); Advanced Calculus I (Math 4031), Advanced Calculus of Several Variables (Math 4035), Analytic Geometry and Calculus I-II (Math 1552), Multidimensional Calculus (Math 2057), Elementary Differential Equations (Math 2065), Elementary Differential Equations and Linear Algebra (Math 2090), and Mathematical Methods in Engineering (Maths 2070 and 4038) at LSU.
2. Graduate Courses Taught: Introduction to Mathematical Control Theory, Mathematical Control Theory, Mathematical Topics in Systems Theory, and Ordinary Differential Equations (LSU).
3. General Exam Committees at LSU: Richard Barnard (2007), Jacob Blanton (2009), Bidur Bohara (2013), Qingxia Li (2007), Piotr Maciak (2007), Hongye Wang (2007), and Stanislav Zabic (2002).
4. Recently Graduated PhD Students: Robert Sizemore (as committee chair) in LSU Department of Mathematics, 2018 [Dissertation: Curve Tracking Control under State Constraints and Uncertainties. Placement: US Department of Defense]. Jerome Weston (as committee chair) in LSU Department of Mathematics, 2018 [Dissertation: Backstepping and Sequential Predictors for Control Systems. Placement: Post-doc position at University of Dubrovnik in ConDyS (Control of Dynamical Systems) Project]. Bidur Bohara (as committee member) in LSU Division of Computer Science and Engineering, 2015 [Dissertation: Visualization of Time-Varying Data from Atomistic Simulations and Computational Fluid Dynamics. Placement: FEI Visualization Sciences Group, Houston, TX]. Xiaoyu Cai (as committee co-chair) in LSU Department of Mechanical and Industrial Engineering, 2013 [Dissertation: Graph Rigidity-Based Formation Control of Planar Multi-Agent Systems. Placement: R&D Electrical Control Engineer, Baker Hughes, Houston, TX]. Aleksandra Gruszka (as committee chair) in LSU Department of Mathematics, 2012 [Dissertation: Some Tracking Problems for Aerospace Models with Input Constraints].
5. Other PhD Advisory Committees at LSU: Norma Ortiz (2005), Hongye Wang (2008), and Stanislav Zabic (2005). Recent PhD Committees Outside LSU: Member of PhD Juries for Mounir Bekaik (2012) and Thach Dinh (2014), Laboratoire des Signaux et Systèmes, France. Advisory Committee (with lead advisor Fumin Zhang) for Shayok Mukhopadhyay (2014) in Georgia Tech School of Electrical and Computer Engineering.
6. My PhD Students' Awards: 2018 SIAM Student Chapter Certificate of Recognition (Weston), Student Best Paper Finalist and Best Presentation Award at 2011 American Control Conference (Gruszka), One of 12 US Students Selected to Present Talk in Association for Women in Mathematics Sessions at 2012 Joint

Mathematics Meetings (Gruszka), Bridge to the Doctorate Initiative Fellowship (Weston), Third Place Award in 2015 IEEE CSS Video Clip Contest (Varnell).

7. Advisees for Communicating Mathematics Projects: Nicholas Lee (2018), Hao Zuo (2019), Jamal Shabani (2020), Minh Vu (2020), Aurora Wallace (2020), Safeyya Alyahia (2022), and Jackson Knox (2022).
8. Undergraduate Research Students at LSU: Aaron Faulkner and Marsien Ngoufack (both supported by NSF Research Experiences for Undergraduates (REU) Supplement to "Theory, Methods, and Applications of Nonlinear Control Systems with Time Delays" in 2014-15), Dylan Stephens and Bailey Smoorenburg (supported by NSF REU Supplements to "Sequential Predictors for Partial Differential Equation and Delay Systems: Designs, Theory, and Applications" in 2020-2, co-advised by Corina Barbalata), Daniel Schmidt (supported by LSU Center for Computation and Technology REU Program in 2017, co-advised by Mayank Tyagi).

X Selected media coverage

1. "Control and Optimization," *Pursuit*, LSU College of Science, January 2022. [Article about Malisoff's research collaborations in College's 2021 annual report magazine.]
2. "LSU Professors Working on Marine Robotic Diving Vehicles Used in Aftermath of Deepwater Horizon Spill," LSU Reveille (Student Newspaper), September 27, 2021.
3. Research Announcements, LSU Department of Mathematics LinkedIn Page, November 2020, September 2021, and January 2022.
4. "Math Faculty Named 2014 Rainmakers," LSU College of Science E-News, April 2014.
5. "LSU Today Flagship Faculty: Michael Malisoff," LSU Office of Communications and University Relations, Posted Online August 2, 2013.
6. "LSU College of Science Appoints Michael Malisoff to Roy Paul Daniels Professorship," LSU Media Center News, Posted Online February 28, 2013.
7. "Marine Robots Track Pollutants," NSF SEE Innovation Report at research.gov, 2013.
8. "Robots Unleashed: LSU Professor Develops Marine Robotic Methods for Oil Spill Study," *The Pursuit*, LSU College of Science, April 2012.
9. "Send In The Bots," PEG, Association of Professional Engineers and Geoscientists of Alberta, April 2012.
10. "Deep-Sea Diving Robot Can Do Dangerous Work," Mashable.com, Posted Online January 18, 2012.
11. "Project Explores Uses for Robots," Sunday Baton Rouge Advocate, Section B, Page 1, January 15, 2012.
12. "Project Explores Emergency Robot Uses and Controls," Associated Press News Story in *Houston Chronicle*, *Marietta Daily Journal*, *San Antonio Express-News*, and Many Other Newspapers, January 2012.
13. Segment on Marine Robotic Methods for Oil Spill Study, WBRZ Channel 2 10PM News, January 2012.
14. Review of *Constructions of Strict Lyapunov Functions*, *SIAM Review*, Vol. 53, No. 1, 2011, pp. 178-179.