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POSITION

University of California, Santa Barbara	Santa Barbara, CA
Postdoctoral Scholar, Department of Electrical and Computer Engineering	Aug. 2017–present
Advisor: João P. Hespanha	

EDUCATION

University of Illinois at Urbana-Champaign	Urbana, IL
Ph.D. in Electrical and Computer Engineering	Aug. 2013–Aug. 2017
Advisor: Daniel Liberzon	
Dissertation: “Switched and hybrid systems with inputs: small-gain theorems, control with limited information, and topological entropy”	

University of Illinois at Urbana-Champaign	Urbana, IL
M.S. in Electrical and Computer Engineering	Aug. 2011–Aug. 2013
Advisor: Daniel Liberzon	
Thesis: “A Lyapunov-based small-gain theorem for interconnected switched systems”	

Hong Kong University of Science and Technology	Kowloon, Hong Kong
B.Eng. in Electronic Engineering (Honors Research Option)	Sep. 2007– May 2011
Minor in Mathematics	
Advisor: Zexiang Li	

RESEARCH INTERESTS

- Switched and hybrid systems
- Control with limited information
- Nonlinear systems and control theory

PUBLICATIONS

Journals:

- Kuniyoshi Okano, Masashi Wakaiki, **Guosong Yang**, and João P. Hespanha, “Stabilization of networked control systems under clock offsets and quantization,” *IEEE Transactions on Automatic Control*, to be published
- **Guosong Yang** and Daniel Liberzon, “Feedback stabilization of switched linear systems with unknown disturbances under data-rate constraints,” *IEEE Transactions on Automatic Control*, to be published
- Andrii Mironchenko, **Guosong Yang**, and Daniel Liberzon, “Lyapunov small-gain theorems for networks of not necessarily ISS hybrid systems,” *Automatica*, to be published

- **Guosong Yang** and Daniel Liberzon, “A Lyapunov-based small-gain theorem for interconnected switched systems,” *Systems & Control Letters*, vol. 78, pp. 47–54, 2015

Conferences:

- **Guosong Yang**, Daniel Liberzon, and Zhong-Ping Jiang, “Stabilization of interconnected switched control-affine systems via a Lyapunov-based small-gain approach,” in *2017 American Control Conference*, 2017, pp. 5182–5187
- **Guosong Yang**, Daniel Liberzon, and Andrii Mironchenko, “Analysis of different Lyapunov function constructions for interconnected hybrid systems,” in *55th IEEE Conference on Decision and Control*, 2016, pp. 465–470
- **Guosong Yang** and Daniel Liberzon, “Finite data-rate stabilization of a switched linear system with unknown disturbance,” in *10th IFAC Symposium on Nonlinear Control Systems*, 2016, pp. 1085–1090
- **Guosong Yang** and Daniel Liberzon, “Stabilizing a switched linear system with disturbance by sampled-data quantized feedback,” in *2015 American Control Conference*, 2015, pp. 2193–2198
- **Guosong Yang** and Daniel Liberzon, “Input-to-state stability for switched systems with unstable subsystems: a hybrid Lyapunov construction,” in *53rd IEEE Conference on Decision and Control*, 2014, pp. 6240–6245
- Andrii Mironchenko, **Guosong Yang**, and Daniel Liberzon, “Lyapunov small-gain theorems for not necessarily ISS hybrid systems,” in *21st International Symposium on Mathematical Theory of Networks and Systems*, 2014, pp. 1001–1008

TEACHING EXPERIENCE

University of Illinois at Urbana-Champaign

Urbana, IL

- Teaching assistant, ECE517 Nonlinear and Adaptive Control, Fall 2015, Fall 2016
- Teaching assistant, ECE528 Analysis of Nonlinear Systems, Spring 2015

PROFESSIONAL ACTIVITIES

- Journal reviewer for [IFAC Automatica](#), [System & Control Letters](#), [Nonlinear Analysis: Hybrid Systems](#), and [IEEE Control Systems Letters](#)
- Conference reviewer for [MICNON 2015](#), [HSCC 2017](#), and [2017 ACC](#)

HONORS AND AWARDS

- Best Poster Award, Coordinated Science Laboratory Student Conference, 2016
- HKUST University Scholarship, 2007–2011
- HKUST School of Engineering Scholarship, 2007–2011
- HKUST ECE Outstanding Freshmen Scholarship, 2007–2011
- HKUST The Joseph Lau Luen Hung Charitable Trust Scholarship, 2007–2011
- HKUST Dean’s List Award, Fall 2007, Spring 2008, Fall 2008, Spring 2009, Fall 2009
- Gold medal for 8th Asian Physics Olympiad, 2007

PERSONAL

- Citizenship: China
- Languages: Chinese (native), English (fluent)