

Jean-Baptiste Bouvier

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CURRENT POSITION	University of Illinois Urbana-Champaign , Urbana, IL, USA Postdoctoral Researcher, Department of Aerospace Engineering	2023
PREVIOUS POSITIONS	University of Illinois Urbana-Champaign , Urbana, IL, USA Research Assistant, Department of Aerospace Engineering	2019 – 2023
	PNNL (Pacific Northwest National Laboratory) , Richland, WA, USA PhD Intern in the Optimization & Control group, Optimization of resilient grid	2021
	CNES (French space agency) , Toulouse, France Intern in Flight Dynamics, Mission design of a satellite constellation	2019
	University of Illinois Urbana-Champaign , Urbana, IL, USA Research Assistant, Department of Aerospace Engineering	2017 – 2018
EDUCATION	University of Illinois Urbana-Champaign , Urbana, IL, USA Ph.D., Aerospace Engineering Thesis: <i>Guaranteed Resilience of Autonomous Systems to Partial Loss of Control Authority over their Actuators</i> Advisor: Prof. Melkior Ornik	2019 – 2023
	M.Sc., Aerospace Engineering Thesis: <i>Orbit Control for a Spacecraft around a Splitting Contact Binary Asteroid</i> Advisor: Prof. Koki Ho	2017 – 2018
	ISAE Supaéro , Toulouse, France M.Sc., Aerospace Engineering	2015 – 2017
	Lycée du Parc , Lyon, France Preparatory Classes in Mathematics, Physics and Engineering	2013 – 2015
JOURNAL PUBLICATIONS	<ul style="list-style-type: none">[1] JB. Bouvier, K. Xu, M. Ornik. Quantitative resilience of generalized integrators. <i>IEEE Transactions on Automatic Control</i>, 2023.[2] JB. Bouvier, M. Ornik. Resilience of linear systems to partial loss of control authority. <i>Automatica</i>, 152, pp. 110985, 2023.[3] JB. Bouvier, M. Ornik. Designing resilient linear systems. <i>IEEE Transactions on Automatic Control</i>, 67 (9), pp. 4832–4837, 2022.[4] JB. Bouvier, M. Ornik. The maximax minimax quotient theorem. <i>Journal of Optimization Theory and Applications</i>, 192, pp. 1084–1101, 2022.[5] TM. Silva, JB. Bouvier, K. Xu, M. Hirabayashi, K. Ho. Spacecraft trajectory tracking and parameter estimation around a splitting contact binary asteroid. <i>Acta Astronautica</i>, 171, pp. 280–289, 2020.[6] BB. Jagannatha, JB. Bouvier, K. Ho. Preliminary design of low-energy, low-thrust transfers to halo orbits using feedback control. <i>Journal of Guidance, Control and Dynamics</i>, 42 (2), pp. 260–271, 2019.	

PEER-REVIEWED CONFERENCE PUBLICATIONS	[7] M. Ornik, JB. Bouvier. Assured system-level resilience for guaranteed disaster response. 8 th <i>IEEE International Smart Cities Conference</i> , 2022.	
	[8] JB. Bouvier, M. Ornik. Quantitative resilience of linear systems. 20 th <i>European Control Conference</i> , pp. 485–490, 2022.	
	[9] JB. Bouvier, SP. Nandanoori, M. Ornik, S. Kundu. Distributed transient safety verification via robust control invariant sets: a microgrid application. 2022 <i>American Control Conference</i> , pp. 2202–2207, 2022.	
	[10] JB. Bouvier, K. Xu, M. Ornik. Quantitative resilience of linear driftless systems. <i>SIAM Conference on Control and its Applications</i> , pp. 32–39, 2021.	
	[11] JB. Bouvier, M. Ornik. Resilient reachability for linear systems. 21 st <i>IFAC World Congress</i> , pp. 4409–4414, 2020.	
OTHER PUBLICATIONS	[12] JB. Bouvier, H. Panag, R. Woollands, M. Ornik. Resilience of orbital inspections to partial loss of control authority of the chaser satellite. 2022 <i>AAS/AIAA Astrodynamics Specialist Conference</i> .	
	[13] JB. Bouvier, W. Zanga (supervised by S. Lizy-Destrez and B. Le Bihan). Strategies for space rendezvous on Lunar Distant Retrograde Orbits. <i>ISAE Supaéro</i> , 2017.	
TEACHING EXPERIENCE	University of Illinois Urbana-Champaign	
	AE 461: Structures and Control Lab AE 352: Aerospace Dynamical Systems AE 483: UAV Navigation and Control	Spring 2022, Spring 2023 Fall 2019 Fall 2018
RECENT HONORS	Mavis Future Faculty Fellowship	2022-2023
	John V. Breakwell Student Award by the American Astronautical Society	Summer 2022
	Student Travel Award to the 2022 American Control Conference	Summer 2022
	EUCA Student Support Program for the 2022 European Control Conference	Summer 2022
	PNNL Outstanding Performance Award	Fall 2021
	Student Travel Award to the SIAM Conference CT21	Summer 2021
REVIEWER	Aerospace Outstanding Graduate Student Fellowship	Spring 2020
	IEEE Transactions on Control Systems Technology	2023
	American Control Conference	2023
	IFAC World Congress	2020