

R. C. L. F. Oliveira – List of Publications

As of **August 19, 2026** . Electronic versions of the published documents (.pdf or .ps) are available upon request (ricfow AT unicamp . br).

International Journals

1. R. M. Fuentes, R. C. L. F. Oliveira, J. M. Gomes da Silva Jr., and J. M. Palma. Pure digital dynamic output feedback for uncertain aperiodic sampled-data systems. *Nonlinear Analysis: Hybrid Systems*, 62:101799, November 2026.
2. Y. Quilles-Marinho, D. Lee, R. C. L. F. Oliveira, and P. L. D. Peres. Regional output-feedback control for T–S fuzzy systems using Lyapunov functions with polynomial dependency on states and membership functions. *IEEE Transactions on Systems, Man, and Cybernetics: Systems*, 56(9):5023–5037, September 2026.
3. L. P. M. Silva, C. F. Morais, and R. C. L. F. Oliveira. Output-feedback H_∞ detector-based control of continuous-time Markov jump Lur’e systems with sector-bound optimization. *International Journal of Robust and Nonlinear Control*, 36(12):6304–6317, August 2026.
4. Y. Quilles-Marinho, D. Lee, R. C. L. F. Oliveira, and P. L. D. Peres. Regional stabilization and estimation of domains of attraction for discrete-time TS fuzzy systems via fuzzy-modeled membership functions. *IEEE Transactions on Fuzzy Systems*, 34(3):843–857, March 2026.
5. G. G. Koch, L. Borin, C. Osório, M. Aly, M. Norambuena, J. Rodriguez, F. Carnieluti, H. Pinheiro, R. C. L. F. Oliveira, and V. F. Montagner. Improved control of grid-connected converters from strong to very weak conditions integrating more effective LMIs and C-HIL. *Control Engineering Practice*, 169:106724, April 2026.
6. G. V. Hollweg, R. U. M. Viaro, E. Mattos, R. C. L. F. Oliveira, H. Pinheiro, and V. F. Montagner. Progressively improved LMIs for achieving high-performance robust control of DC-DC converters with low-cost microcontrollers. *Control Engineering Practice*, 165:106502, December 2025.
7. G. P. Neves B. A. Angélico and R. C. L. F. Oliveira. Quasi-LPV modeling and $\mathcal{H}_\infty$ gain-scheduled state-feedback control applied to a control moment gyroscope. *IEEE/ASME Transactions on Mechatronics*, 30(4):2756–2765, August 2025.
8. P. J. de Oliveira, R. C. L. F. Oliveira, and P. L. D. Peres. An LMI-based tool for $\mathcal{H}_\infty$ robust performance margin evaluation of uncertain linear systems and robustification of controllers. *IEEE Transactions on Automatic Control*, 70(7):4889–4895, July 2025.
9. Y. Quilles-Marinho, D. Lee, R. C. L. F. Oliveira, and P. L. D. Peres. Harnessing membership function dynamics for local stability analysis and estimation of domains of attraction for discrete-time T-S fuzzy systems. *IEEE Control Systems Letters*, 9:1039–1044, June 2026.
10. Y. Quilles-Marinho, R. C. L. F. Oliveira, and P. L. D. Peres. Output-feedback control design for Takagi-Sugeno fuzzy systems through Lyapunov functions depending polynomially on the states. *Fuzzy Sets and Systems*, 499:109156, January 2025.
11. A. P. A. Rocha, R. C. L. F. Oliveira, and N. Mendes. Technical review of solar distribution calculation methods: Enhancing simulation accuracy for high-performance and sustainable buildings. *Buildings*, 15, February 2025. 578.

12. L. P. M. da Silva and R. C. L. F. Oliveira. $\mathcal{H}_2$ detector-based state feedback control of continuous-time MJLS subject to uncertain transition rate matrices. *Journal of The Franklin Institute*, 361, October 2024. 107123.
13. A. M. Souza, R. C. L. F. Oliveira, and P. L. D. Peres. Computation of stable convex combinations of a set of matrices through LMIs with application in $\mathcal{H}_\infty$ control of switched linear systems. *Systems & Control Letters*, 189, July 2024. 105833.
14. R. M. Fuentes, M. J. Lacerda, C. F. Moraes, R. C. L. F. Oliveira, and J. M. Palma. $\mathcal{H}_\infty$ gain-scheduled dynamic output feedback control with transient performance applied to electrical microgrid. *Journal of The Franklin Institute*, 361(7):106704, May 2024.
15. L. C. Borin, G. V. Hollweg, C. R. D. Osório, F. M. Carnielutti, R. C. L. F. Oliveira, and V. F. Montagner. Automated test-driven design for robust optimized current control of GTIs operating under normal and abnormal grid conditions. *Control Engineering Practice*, 143:105790, February 2024.
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18. E. Mattos, L. C. Borin, C. R. D. Osório, G. G. Koch, R. C. L. F. Oliveira, and V. F. Montagner. Robust optimized current controller based on a two-step procedure for grid-connected converters. *IEEE Transactions on Industry Applications*, 59(1):1024–1034, January/February 2023.
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22. A. Spagolla, À. A. Lemaire, C. F. Moraes, R. C. L. F. Oliveira, and P. L. D. Peres. Robust $\mathcal{H}_2$ and $\mathcal{H}_\infty$ control for positive continuous-time uncertain linear systems. *Journal of The Franklin Institute*, 359(10):4842–4855, July 2022.
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