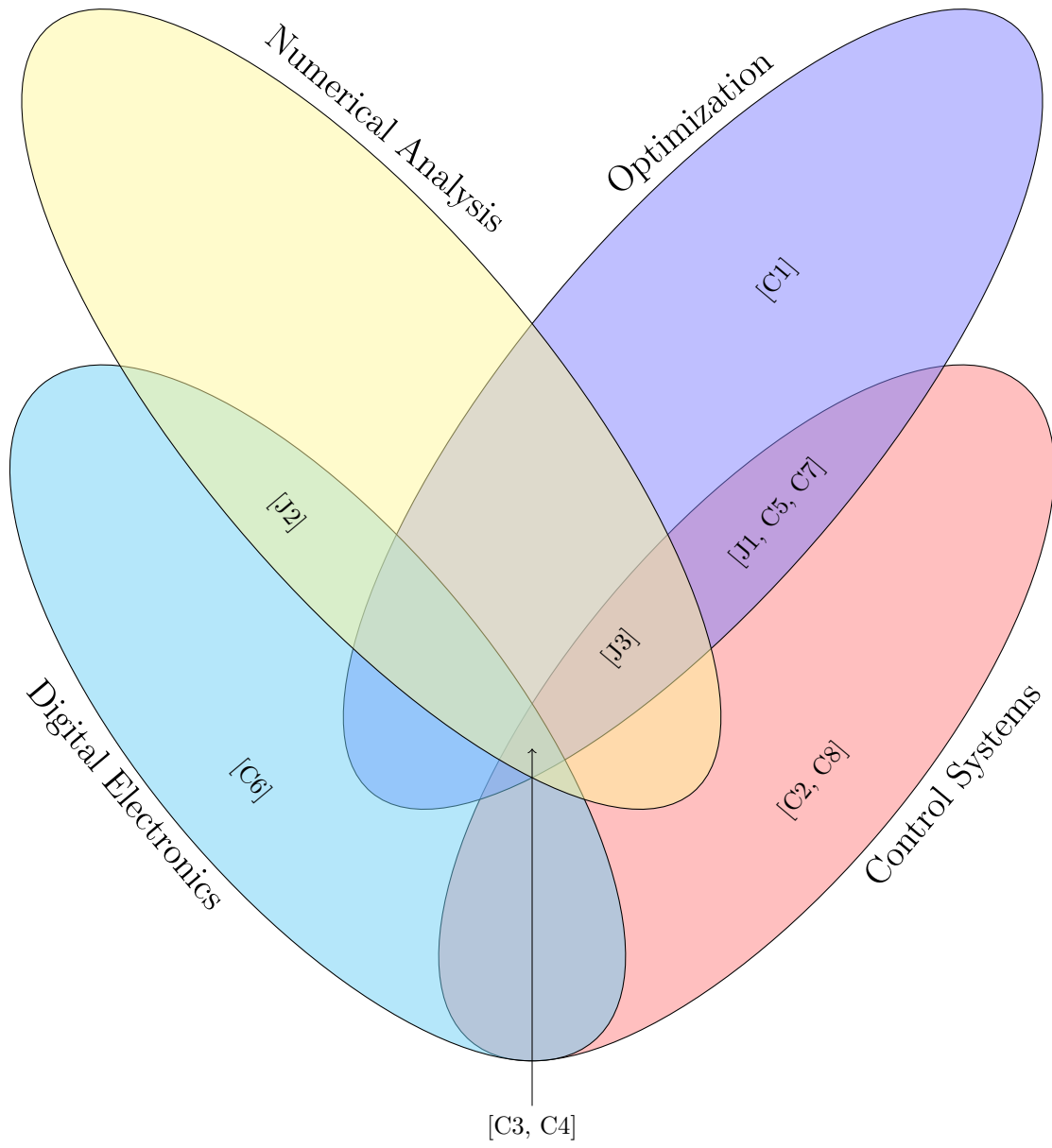


Publication Fields



Journal Papers

- [J3] **I. McInerney**, E. C. Kerrigan, and G. A. Constantinides, “Horizon-independent preconditioner design for linear predictive control,” *IEEE Transactions on Automatic Control*, 2022. DOI: 10.1109/TAC.2022.3145657, (Accepted, in-press). arXiv: 2010.08572.
- [J2] H. Li, **I. McInerney**, J. Davis, and G. A. Constantinides, “Digit stability inference for iterative methods using redundant number representation,” *IEEE Transactions on Computers*, vol. 70, no. 7, pp. 1074–1080, 2021. DOI: 10.1109/TC.2020.3003529. arXiv: 2006.09427.
- [J1] J.-M. Rodriguez-Bernuz, **I. McInerney**, A. Junyent-Ferré, and E. C. Kerrigan, “Design of a linear time-varying model predictive control energy regulator for grid-tied VSCs,” *IEEE Transactions on Energy Conversion*, vol. 36, no. 2, pp. 1425–1434, 2021. DOI: 10.1109/TEC.2021.3060319.

Conference Papers

- [C8] **I. McInerney** and E. C. Kerrigan, “Teaching predictive control using specification-based summative assessments,” in *13th IFAC Symposium on Advances in Control Education*, Hamburg, Germany, Jul. 2022, (Accepted). arXiv: 2202.00157.
- [C7] L. Nita, E. M. G. Vila, M. Zagorowska, E. C. Kerrigan, Y. Nie, **I. McInerney**, and P. Falugi, “Fast and accurate method for computing non-smooth solutions to constrained control problems,” in *2022 European Control Conference*, Jun. 2022, (Accepted).
- [C6] B. Biggs, **I. McInerney**, E. C. Kerrigan, and G. A. Constantinides, “High-level synthesis using the Julia language,” in *2nd Workshop on Languages, Tools, and Techniques for Accelerator Design (LATTE’22)*, Lausanne, Switzerland, Mar. 2022. arXiv: 2201.11522.
- [C5] **I. McInerney**, L. Nita, Y. Nie, A. Oliveri, and E. C. Kerrigan, “Towards a framework for nonlinear predictive control using derivative-free optimization,” in *7th IFAC Conference on Nonlinear Model Predictive Control*, Bratislava, Slovakia: IFAC, Aug. 2021. DOI: 10.1016/J.IFACOL.2021.08.558. arXiv: 2106.05025.
- [C4] **I. McInerney**, E. C. Kerrigan, and G. A. Constantinides, “Modeling round-off error in the fast gradient method for predictive control,” in *58th IEEE Conference on Decision and Control (CDC)*, Nice, France: IEEE, Dec. 2019, pp. 4331–4336. DOI: 10.1109/CDC40024.2019.9029910.
- [C3] **I. McInerney**, G. A. Constantinides, and E. C. Kerrigan, “A survey of the implementation of linear model predictive control on FPGAs,” in *6th IFAC Conference on Nonlinear Model Predictive Control*, Madison, Wisconsin, US: IFAC, Aug. 2018, pp. 381–387. DOI: 10.1016/J.IFACOL.2018.11.063.
- [C2] **I. McInerney** and E. C. Kerrigan, “Automated project-based assessment in a predictive control course,” in *2018 UKACC 12th International Conference on Control (CONTROL)*, Sheffield, UK: IEEE, Aug. 2018, p. 443. DOI: 10.1109/CONTROL.2018.8516728.
- [C1] **I. McInerney**, X. Ma, and N. Elia, “Cooperative localization from imprecise range-only measurements: A non-convex distributed approach,” in *56th IEEE Conference on Decision and Control (CDC)*, Melbourne, Australia: IEEE, Dec. 2017, pp. 2216–2221. DOI: 10.1109/CDC.2017.8263973.