



Honoring Elmer Gilbert (1930-2019) and his contributions to Control Systems

Constrained Control: Contributions by Professor Elmer Gilbert and Recent Developments



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ABSTRACT: The talk will touch upon the seminal contributions by Professor Elmer Gilbert (and his students) to control theory for systems with pointwise-in-time state and control constraints and to Nonlinear Model Predictive Control (NMPC). Over the last twenty-five years, these fields have undergone vigorous growth in terms of both theoretical advances and real world practical applications, and have been strongly influenced by Professor Gilbert's pioneering results. Recent developments in constrained control by the speaker (and his students), which continue some of the lines of inquiry in Professor Gilbert's research, will also be discussed.

BIO: Ilya Kolmanovsky is a professor in the department of aerospace engineering at the University of Michigan, with research interests in control theory for systems with state and control constraints, and in control applications to aerospace and automotive systems. He received his Ph.D. degree from the University of Michigan in 1995. He was privileged to have an opportunity to learn from Professor Elmer Gilbert as a student in the nineties and later as his colleague over the years.