**Willems dissipativity in nonautonomous linear-quadratic control processes**

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This talk concerns the concept of dissipativity in the sense of Willems for nonautonomous linear-quadratic (LQ) control systems. A nonautonomous system of Hamiltonian ODEs can be associated with such an LQ system, and the analysis of the corresponding symplectic dynamics provides valuable information on the dissipativity properties. The presence of exponential dichotomy, the occurrence of weak disconjugacy, and the existence of nonnegative solutions of the Riccati equation provided by the Hamiltonian system are closely related to the presence of (normal or strict) dissipativity and to the definition of the (normal or strong) storage functions.