

Memory-type null controllability of evolution equations

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This work is addressed to a study of the memory-type null controllability of evolution equations, i.e., by imposing some additional memory-type constraints on the usual null controllability. The problem is reduced to the obtention of suitable observability estimates for the dual systems. For the case of finite dimensions, several Kalman-type rank conditions are derived. The memory-type null controllability of some parabolic equations and hyperbolic equations are also established.