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Mark A McKibben* (markmckibben@email.msn.com), Goucher College, Dept. of Mathematics and Computer Science, 1021 Dulaney Valley Road, Towson, MD 21030. *Controllability of abstract evolution systems with nonlocal initial data*. Preliminary report.

Throughout the past few years there has been much work concerning the existence and uniqueness of mild and strong solutions to abstract Cauchy problems (both linear and nonlinear) with nonlocal initial conditions. Concurrently, several authors have investigated various controllability issues for related abstract systems, but only in the case in which the initial state is fixed. The purpose of this talk is to discuss extensions of such controllability results to the case of a nonlocal initial state under various growth conditions on the data. An example illustrating the abstract theory will also be provided. (Received July 24, 2000)