

A CHARACTERIZATION OF WELL-POSEDNESS FOR ABSTRACT CAUCHY PROBLEMS WITH FINITE DELAY

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ABSTRACT. In this talk, we characterize the mildly well-posedness of the first order abstract Cauchy problem with finite delay, solely in terms of a strongly continuous one-parameter family of bounded linear operators that satisfies a novel functional equation. In the case that the delay operator is null, this property is reduced to characterize the well-posedness of the first order abstract Cauchy problem in terms of the Abel's functional equation that satisfies a C_0 -semigroup.

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