1010-35-110     **George Avalos*** (`gavalos@math.unl.edu`), Department of Mathematics, University of Nebraska-Lincoln, 323 Avery Hall, Lincoln, NE 68588. *Strong Stability of PDE Semigroups via a Resolvent Criterion of Y. Tomilov.*

We give a rather general procedure by which one may invoke a recently derived operator theoretic result, so as to obtain strong stability of those $C_0$-semigroups which model partial differential equations in Hilbert space. This procedure is illustrated here by means of two concrete PDE examples. The novelty of adopting this new strong stability technique is that one does not need to have an explicit representation of the resolvent. (Received August 22, 2005)