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**Yuri Latushkin\*** ([yuri@math.missouri.edu](mailto:yuri@math.missouri.edu)), Department of Mathematics, University of Missouri, Columbia, MO 65211. *Frequency-domain stability of well-posed systems.*

We study linear control systems with unbounded control and observation operators using certain regularization techniques. This allows us to introduce a modification of the transfer function for the system. The modified transfer function is utilized to show exponential stability of sufficiently smooth solutions for the internal system under appropriately modified stabilizability and detectability assumptions. For majority of the known autonomous systems, the use of the regularization of higher order degree of smoothness employed in this paper leads to conclusions regarding uniform exponential stability of the internal system. (Received August 09, 2005)