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**Aaron A. Allen\*** (aaallen@iastate.edu), 245 Sinclair Ave. #322, Ames, IA 50014, and **Scott W. Hansen**. *Stability Results for a Multilayer Mead-Markus Beam*.

The classical Mead-Markus sandwich beam consists of two stiff beam layers which sandwich a beam compliant layer. We consider a multilayer generalization of this model consisting of  $m + 1$  stiff layers bound together by  $m$  shear deformable layers with linear viscous shear damping included. We show that the semigroup associated with the multilayer beam is analytic. Furthermore, the angle of analyticity is described explicitly. A solution to the problem of how to optimally choose the damping in each layer to maximize the angle of analyticity is described. (Received September 11, 2008)