

1145-92-1786

Stephen Gourley, Feng-bin Wang and Yanyu Xiao* (yanyu.xiao@uc.edu). *A Model for machine tool vibration.*

We develop a delay differential equation that arises in the modeling of vibration (chatter) that can occur when machining a rotating workpiece using a lathe, in the case when the cut is made longitudinally. We explore conditions of eliminating chatter by spindle speed variation (SSV). (Received September 24, 2018)