Abstract Submitted
for the SHOCK09 Meeting of
The American Physical Society

**High velocity properties of the dynamic frictional force between ductile metals**[1] J.E. HAMMERBERG, B.L. HOLIAN, T.C. GERMANN, R.J. RAVELO, Los Alamos National Laboratory — The high velocity properties of the tangential frictional force between ductile metal interfaces seen in large-scale NonEquilibrium Molecular Dynamics (NEMD) simulations are characterized by interesting scaling behavior. In many cases a power law decrease in the frictional force with increasing velocity is observed at high velocities. We discuss the velocity dependence of the high velocity branch of the tangential force in terms of structural transformation and ultimate transition, at the highest velocities, to confined fluid behavior characterized by a critical strain rate. The particular case of an Al/Al interface will be discussed.

[1]Work supported by the U.S. Department of Energy under contract DE-AC52-06NA25396.

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Date submitted: 20 Feb 2009 Electronic form version 1.4