

3:00-4:00pm, Friday, October 13, 2017  
1100 Patrick F Taylor Auditorium

by Yang Mu\*

Experimental testing protocols for solid/solid interfacial mechanical integrity are discussed. A new micro-pillar compression testing protocol for metal/ceramic interfacial regions is described and demonstrated. Shear and compression failures of the interfacial regions of CrN/Cu/Si and CrN/Cu/CrN/Si ceramic-coating/metal-adhesion-layer/substrate systems were measured quantitatively ex-situ through instrumented compression and in-situ through instrumented compression and concurrently scanning electron microscopy