1112-35-505 **Farhod Abdullayev*** (fabdullayev@wpi.edu), Department of Mathematical Sciences, Stratton Hall, 100 Institute Road, Worcester, MA 01608. *On quasi-static limits of one-dimensional dynamic cohesive fracture.*

Quasi-static models are based on the assumption that whatever is driving the motion, for example loading or Dirichlet conditions, varies slowly in time compared to the elastic wave speed of the material. We analyze a one-dimensional model of dynamic cohesive fracture with varying Dirichlet condition, and take the limit as the speed with which the condition changes goes to zero. We then study the question of whether the usual model for quasi-static cohesive fracture is the limit of dynamic cohesive fracture. (Received August 10, 2015)