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Yongki Lee* (yongki.lee@ucr.edu), Department of Mathematics, University of California, Riverside, Riverside, CA 92521. *A class of non-local conservation laws: sub-thresholds for finite time shock formation.*

We investigate a class of non-local conservation laws with the nonlinear advection coupling both local and non-local mechanisms, which arise in several applications such as traffic flows and the collective motion of cells. We identify sub-thresholds for finite time shock formation in traffic flow models and the hyperbolic Keller-Segel model. This is a joint work with Hailiang Liu. (Received February 19, 2015)