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Seung-Yeal Ha* (syha@math.umd.edu), Department of Mathematics, University of Maryland-College Park, College Park, MD 20742-4015, and Eitan Tadmor (tadmor@cscamm.umd.edu), Department of Mathematics, University of Maryland, College Park, MD 20742-4015. A Vlasov type kinetic model for Cucker-Smale's flocking: Modeling and Analysis.

We present a Vlasov type kinetic model for Cucker-Smale's flocking. We prove that this kinetic model exhibit time-asymptotic flocking behavior for arbitrary compactly supported initial data, when pairwise interactions have sufficiently long ranges. This is a joint work with Eitan Tadmor (UM-CP). (Received December 12, 2007)