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**Sergio Albeverio, Barbara Rüdiger and Padmanabhan Sundar\*** (sundar@math.lsu.edu),  
Department of Mathematics, Louisiana State University, Baton Rouge, LA 70803. *The Enskog  
Process.*

The existence of a weak solution to a McKean-Vlasov type stochastic differential system corresponding to the Enskog equation of the kinetic theory of gases is established under natural conditions. The distribution of any solution to the system at each fixed time is shown to be unique. The existence of a probability density for the time-marginals of the velocity is verified in the case where the initial condition is Gaussian, and is shown to be the density of an invariant measure. (Received September 15, 2015)