

Abstract Submitted
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Cluster formation in traffic models R.M. VELASCO¹, P. SAAVEDRA², Universidad Autonoma Metropolitana — In this work we study macroscopic traffic models in a linearly unstable region. It is found that in this case, some clusters appear in the dynamical description. At a first order calculation, an iterative method allows us to construct the Korteweg de Vries equation, which describes a soliton structure. In traffic flow dynamics this fact means that a cluster appears and it travels along the highway with constant speed. The cluster properties are determined by the experimental information introduced in the model. Some numerical simulations are done to illustrate our results.

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