

# From discrete microscopic models to macroscopic models and applications to traffic flow.

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## Abstract

The goal of this talk is to show how to derive macroscopic models for traffic flow problem from discrete microscopic models. At the microscopic scales, we will consider a Bando model, of the type following the leader, i.e. the acceleration of each vehicle depends on the distance to the vehicle in front of it. After rescaling, we will show that the solution of this system of ODEs converges to the solution of a macroscopic homogenized Hamilton-Jacobi equation which can be seen as a LWR (Lighthill-Whitham-Richards) model.

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