Numerical approach for Hamilton-Jacobi equations on a network: application to traffic

G. Costeseque
Université Paris-Est, Ecole des Ponts ParisTech & IFSTTAR
costeseg@cermics.enpc.fr

joint work with *A. Ghorbel, J.P. Lebacque,* and *R. Monneau*

Abstract

In this talk, we will be interested in numerical results for Hamilton-Jacobi equations posed on a junction. The motivation of this work is the modeling and simulation of traffic flows through a road junction. In a first step, I will present the model that was firstly stated in [3] and performed very recently in [2]. Then, I will describe the numerical scheme that we use and the theoretical results that we have deduced in [1]. Last, I will show some "realistic" cases of simulation for our traffic motivation. If I have time, I could also present some numerical investigations of homogenization on a periodic network.

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References

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