

## PHASE TRANSITION MODELS FOR VEHICULAR TRAFFIC

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In this talk I present an existence result obtained in [1] for a two-phase transition (PT) model for vehicular traffic. Such PT model is obtained by coupling the first order Lighthill, Whitham [2] and Richards [3] (LWR) model and the second order Aw, Rascle [4] and Zhang [5] (ARZ) model. More precisely, the PT model describes free and congested phases by means of respectively LWR and ARZ.

I present then an existence result proved in [6] for the constrained version of the PT model. The application of such model is, for instance, the modelling of vehicular traffic along a road with point-like inhomogeneities characterized by limited capacity, such as speed bumps, construction sites, tollbooths, etc.

### REFERENCE

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