

**Initial-boundary value problems for transport  
equations in one space dimension with very rough  
coefficients**

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I will discuss new existence, uniqueness and regularity propagation results for solutions of transport equations defined in one-dimensional domains with boundaries. The only assumptions imposed on the coefficient are boundedness and near incompressibility, which means that the coefficient supports a nonnegative and bounded density. This analysis is motivated by applications to a source-destination model for traffic flows on road networks. The talk will be based on joint work with Simone Dovetta and Elio Marconi.