



## Mathematics and CS Seminar

# Transition to Shocks and Decoupling of Last Passage Times

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Host: Laszlo Erdős

We consider the totally asymmetric simple exclusion process (TASEP) in a critical scaling parametrized by  $\beta$ , which creates a shock in the particle density of order  $\beta^{-1/2}$ ,  $t$  the observation time. When starting from step initial data, we provide bounds on the limiting law which in particular imply that in the double limit  $\beta \rightarrow \infty$ ,  $t \rightarrow \infty$  one recovers the product limit law and the degeneration of the correlation length observed earlier at shocks of order 1. This result can be phrased in terms of a general last passage percolation (LPP) model, which allows us to study the decoupling of Airy processes and LPP times in the time-like direction.

**Thursday, October 12, 2017 04:00pm - 06:00pm**

Big Seminar room Ground floor / Office Bldg West (I21.EG.101)



This invitation is valid as a ticket for the ISTA Shuttle from and to Heiligenstadt Station.

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