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Jinho Baik and **Zhipeng Liu*** (zhipeng@ku.edu). *Multi-point distribution of periodic TASEP.*

The height fluctuations of the models in the KPZ class are expected to converge to a universal process. The spatial process at equal time is known to converge to the Airy process or its variations. However, the temporal process, or more generally the two-dimensional space-time fluctuation field, is less well understood. We consider this question for the periodic TASEP (totally asymmetric simple exclusion process). For a particular initial condition, we evaluate the multi-time and multi-location distribution explicitly in terms of a multiple integral involving a Fredholm determinant. We then evaluate the large time limit in the so-called relaxation time scale. We also discuss some new results for other initial conditions. (Received February 12, 2018)