



量子物理学・ナノサイエンス第 316 回セミナー

## Generalized hydrodynamics of the box-ball system

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- 日程** : 6月15日(火) 15:30 -
- 場所** : Zoom\*

### 概要

Box-ball system (BBS) is an integrable cellular automaton in one dimension connected to quantum groups, Yang-Baxter equation, Bethe ansatz, ultradiscretization and tropical geometry. In this talk, generalized Gibbs ensemble of BBS solitons is introduced and their non-equilibrium behavior is investigated by thermodynamic Bethe ansatz and generalized hydrodynamics. Excellent agreement is demonstrated between theoretical predictions and numerical simulation on the density plateaux generated from domain wall initial conditions including their diffusive broadening. If time permits, related topics will be covered such as the limit shape problem of conserved Young diagrams, solution to the speed equation and its connection to the period matrix of tropical Riemann theta functions etc. (Based on joint works with Grégoire Misguich and Vincent Pasquier.)

\*本 ZOOM セミナーに参加されます場合には、事前に下記より登録を済ませてください。

<https://us06web.zoom.us/meeting/register/tZYvdeGrj4rHNxliDRhlQjROqfkdm2Auimp>



ご来聴を歓迎いたします。

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