

Spectra of Random Operators and Related Topics

ランダム作用素のスペクトルと関連する話題

- January 13-15, 2020; 2020年1月13日（月）－15日（水）
- Gakushuin University (Mejiro Campus), South Building No.4, Room 205
学習院大学（目白キャンパス） 南4号館205号室

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Program

1月13日（月）/January 13

13:00–13:50 Takuya Mine (Kyoto Institute of Technology)

Integrated density of states for the Poisson point interaction.

14:00–14:50 Shinichi Kotani (Osaka University)

KdV equation with white noise initial data.

15:10–16:00 Keith Slevin (Osaka University)

Multifractality and the distribution of the Kondo temperature at the Anderson transition.

16:10–17:00 Frédéric Klopp (Sorbonne University)

Exponential decay for the 2 particle density matrix of disordered many-body fermions at zero and positive temperature.

1月14日(火) / **January 14**

10:00–10:50 Trinh Khan Duy (Waseda University)

On the moment method for beta Wishart processes.

11:00–11:50 Makoto Katori (Chuo University)

Zeros of Gaussian analytic functions in the annulus and hyperdeterminantal point processes.

11:50–14:00 Lunch Break

14:00–14:50 Taro Nagao (Nagoya University)

Coulomb gas on an ellipse and random matrices.

15:00–15:50 Tomohiro Sasamoto (Tokyo Institute of Technology)

On random matrix type multiple integrals for particle systems.

16:10–17:00 Ryoki Fukushima (Kyoto University)

Biased random walk conditioned on survival among Bernoulli obstacles: subcritical phase.

1月15日(水) / **January 15**

10:00–10:50 Nariyuki Minami (Keio University)

On the negative part of the spectrum of one-dimensional Schrödinger operators with decaying white noise potential.

11:00–11:50 Fumihiko Nakano (Gakushuin University)

Scaling limit of eigenfunctions for 1d random Schrödinger operators.

本研究集会は 科学研究費基盤研究(C)「一般化 Sturm-Liouville 作用素に対するスペクトル理論とそのランダム化」(代表者：南 就将, 課題番号 19K03526)によるものです。

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(January 12, 2020)

Abstracts

Exponential decay for the 2 particle density matrix of disordered many-body fermions at zero and positive temperature, by Frédéric Klopp

We will consider a simple model for interacting fermions in a random background at zero and positive temperature. At zero temperature, we prove exponential decay for the 2 particle density matrix of a ground state. At positive temperature, we prove exponential decay for the 2 particle density matrix of the density operator in the grand canonical ensemble.