

Random Operators and Related Topics

2023/10/13(Fri.) ~ 10/15(Sun.), 10/16(Free Discussion)

Aoba Science Hall, Tohoku University

10/13 (Fri.)

10:00-10:50 **Makoto Katori (Chuo)**

Non-Hermitian matrix-valued processes and the regularized Fuglede-Kadison determinant random-fields

11:00-11:50 **Khanh Duy Trinh (Waseda)**

Associated Laguerre polynomials in random matrix theory

11:50-13:00 Lunch

13:00-13:50 **Shu Nakamura (Gakushuin)**

Remarks on continuum limits for Schrödinger and Dirac operators

14:00-14:50 **Yukimi Goto (Kyushu)**

Nambu-Goldstone modes in a lattice Nambu-Jona-Lasinio model with multi flavor symmetries

14:50-15:10 Coffee Break

15:10-16:00 **Naomasa Ueki (Kyoto)**

A definition of self-adjoint operators derived from the Schrödinger operator with the white noise potential on the plane

16:10-17:00 **Shinichi Kotani (Osaka, Emeritus)**

1D Schrödinger operator with white noise potential and KdV equation

10/14(Sat.)

10:00-10:50 **Frédéric Klopp (Sorbonne)**

The ground state of a system of interacting fermions in a random field : localization, entanglement entropy,...

11:00-11:50 **Dimi Culcer (New South-Wales)**

Quantum kinetic theory of the orbital magnetic moment of Bloch electrons

11:50-13:00 Lunch

13:00-13:50 **Ryoki Fukushima (Tsukuba)**

Distribution of the random walk conditioned on survival among quenched Bernoulli obsta-

cles

14:00-14:50 **Stefan Junk (Gakushuin)**

Local limit theorem for directed polymer in the delocalized phase

14:50-15:10 Coffee Break

15:10-16:00 **Takashi Imamura (Chiba)**

KPZ models and free fermions

16:10-17:00 **Tomohiro Sasamoto (Titech, online)**

Correlation front of free fermions and random matrix theory

18:00-20:00 **Banquet**, Kita-Aobayama Commons, I01 in the campus map

Fee = 4000 yen → Yoshihiro Abe until 10/16(Mon.)

10/15(Sun.)

10:00-10:50 **Tomi Ohtsuki (Sophia)**

Unifying the Anderson Transitions in Hermitian and Non-Hermitian Systems

11:00-11:50 **Keith Slevin (Osaka)**

A Stochastic Method to Compute the L2 Localisation Landscape

11:50-13:00 Lunch

13:00-13:50 **Taro Nagao (Nagoya)**

Correlation Functions of Two-dimensional Coulomb Gases on an Ellipse

14:00-14:50 **Hosho Katsura (Tokyo)**

Jordan blocks of non-Hermitian quadratic Hamiltonians

14:50-15:10 Coffee Break

15:10-16:00 **Constanza Rojas-Molina (Cergy-Pontoise, online)**

The long-range Anderson model with weakly decaying off-diagonal terms

16:10-17:00 **Simone Warzel (TUM, Munich, online)**

Recent results in quantum spin glasses

10/16(Mon.)

Free Discussion : let us know if you have any proposal. Free spaces are also available.