# Kobe Workshop on Probabilistic Potential Theory and Related Fields

Dates: 7 May 2019 (Tuesday) 09:00 – 8 May 2019 (Wednesday) 17:00
Venue: Room B428-430, Faculty of Science Building B, Kobe University
Organizer: Naotaka Kajino (Kobe University)

## Schedule

| May 7 (Tuesday) | | May 8 (Wednesday) | |
|---|---|---|---|
| 09:00–13:00 | Free Discussion | 09:00–10:00 | Free Discussion |
| | | 10:00–10:40 | Ryokichi Tanaka |
| | | 10:50–11:30 | Yuki Tokushige |
| | | 11:40–12:30 | Mathav Murugan |
| 13:00–13:40 | Masayoshi Takeda | 12:30–13:30 | (Lunch Break) |
| 13:50–14:30 | Daisuke Shiraishi | 13:30–14:10 | Kazumi Okamura |
| 14:50–15:40 | Omer Angel | 14:20–15:00 | David Croydon |
| 15:50–16:30 | Yoshihiro Abe | 15:20–16:00 | Kouhei Matsuura |
| 16:40–17:10 | Ryosuke Shimuzu | 16:10–16:50 | Hiroaki Aikawa |

## Financial Supports

# Program

## 7 May 2019 (Tuesday)

- 9:00–13:00  Free Discussion

- 13:00–13:40  Masayoshi Takeda (Kansai University)
  Criticality theory and maximum principle for generalized Schrödinger forms

- 13:50–14:30  Daisuke Shiraishi (Kyoto University)
  Convergence of three-dimensional loop-erased random walk in the natural parametrization

(Tea break for 20 minutes)

- 14:50–15:40  Omer Angel (University of British Columbia)
  Scaling limits of self interacting random walks

- 15:50–16:30  Yoshihiro Abe (Chiba University)
  Exceptional points of two-dimensional random walks at multiples of the cover time

- 16:40–17:10  Ryosuke Shimizu (Kyoto University)
  Generalized resistance metrics on graphs


## 8 May 2019 (Wednesday)

- 9:00–10:00  Free Discussion

- 10:00–10:40  Ryokichi Tanaka (Tohoku University)
  Cutoff for product replacement on finite groups

- 10:50–11:30  Yuki Tokushige (Kyoto University)
  Jump processes on the Gromov boundary of a hyperbolic group: Probabilistic interpretation of Bourdon–Pajot's Besov spaces

- 11:40–12:30  Mathav Murugan (University of British Columbia)
  Stability of the elliptic Harnack inequality

(Lunch break for 60 minutes)

- 13:30–14:10  Kazuki Okamura (Shinshu University)
  Some results for range of random walk on graph with spectral dimension two

- 14:20–15:00  David Croydon (Kyoto University)
  Quenched and averaged tails of the heat kernel of the two-dimensional uniform spanning tree

(Tea break for 20 minutes)

- 15:20–16:00  Kouhei Matsuura (Kyoto University)
  Tightness property of reflecting Brownian motions on horn-shaped domains

- 16:10–16:50  Hiroaki Aikawa (Chubu University)
  Potential theoretic notions related to integrability of superharmonic functions and supertemperatures

(End of Workshop)