

YITP workshop

Resonances and non-Hermitian systems in quantum mechanics

Maskawa hall, December 11 – 13, 2012

December 11 (Tue)

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|-------------|-----------------------|--|
| 12:30–13:00 | Registration | |
| | Chair: Kiyoshi Kato | |
| 13:00–13:10 | Kiyoshi Kato | Opening |
| 13:10–14:10 | Isao Shimamura | Resonances in atomic and molecular continuum processes |
| 14:10–15:10 | Carl Bender | PT-symmetric quantum mechanics |
| 15:10–15:40 | break | |
| | Chair: Isao Shimamura | |
| 15:40–16:40 | Rezso Lovas | Description of Unbound States and in Terms of Unbound States |
| 16:40–17:40 | Atsushi Hosaka | Hadron resonances and their structures |

December 12 (Wed)

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| | Chair: Toshiyuki Takayanagi | |
| 9:00–9:40 | Akinori Igarashi | Hyperspherical calculations for Coulomb three-body systems |
| 9:40–10:20 | Toru Morishita | Time-resolved analysis and visualization of correlated motions of electrons in multiply excited states of atoms |
| 10:20–10:40 | break | |
| | Chair: Masayasu Kamimura | |
| 10:40–11:20 | Hiroya Suno | Efimov effect and resonances in atomic and molecular physics |
| 11:20–12:00 | Toshiyuki Takayanagi | Resonances in chemical reactions: theory and experiment |
| 12:00–13:00 | Lunch | |
| | Chair: Naomichi Hatano | |
| 13:00–13:40 | Akinori Nishino | Many-body resonance in double quantum-dot systems |
| 13:40–14:20 | Savannah Garmon | Bound state influence on long-time non-exponential decay in open quantum systems |
| 14:20–14:40 | break | break |
| | Chair: Daisuke Jido | |
| 14:40–15:20 | Kanabu Nawa | Complex 2D Matrix Model and Internal Structure of Resonances |
| 15:20–16:00 | Tetsuo Hyodo | Compositeness of hadrons in field theoretical approach |
| 16:00–18:00 | Poster at K206 | |
| 18:00–20:00 | Banquet at Salon | |

December 13 (Thu)

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| | Chair: Carl Bender | |
| 9:00–9:40 | Tomio Petrosky | Exact form of the Complex Spectral Representation of the Liouvillian for Weakly Coupled One-dimensional Quantum Lorentz Gas |
| 9:40–10:20 | Naomichi Hatano | Complex eigenvalue problem of the Liouvillian of an open quantum dot system |
| 10:20–10:40 | break | break |
| | Chair: Tetsuo Hyodo | |
| 10:40–11:20 | Hiroyuki Kamano | How parameters of light-flavor baryon resonances are extracted from experimental data |
| 11:20–12:00 | Takayasu Sekihara | Internal structure of the resonant Lambda(1405) state in chiral dynamics |
| 12:00–13:00 | Lunch | |
| | Chair: Hiroyuki Kamano | |
| 13:00–13:25 | Takayuki Myo | Many-body resonances in He isotopes and those mirror nuclei |
| 13:25–13:50 | Yuma Kikuchi | Complex Scaled Lippmann-Schwinger Equation |
| 13:50–14:15 | Takaharu Otsuka | Low-lying continuum states of drip-line Oxygen isotopes |
| 14:15–15:45 | break | |
| | Chair: Atsushi Hosaka | |
| 14:45–15:20 | Yasuyuki Suzuki | Resonances and responses of few-body systems |
| 15:20–15:45 | Koji Arai | Astro-nuclear Reactions in the microscopic R-matrix method |
| 15:45–16:10 | Shigeyoshi Aoyama | Scattering calculations of d+d, $^3\text{He}+n$ and t+p with realistic nuclear interactions |