

# REIMEI Workshop on “Open quantum mechanics in nuclear, hadron and condensed-matter systems”

February 28 – March 4, 2022, ASRC, JAEA

## Structure of the Workshop

	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00
Feb. 28				Lunch	Seminar	Discussion	Seminar	
Mar. 1		Seminar	Discussion	Lunch	Seminar	Discussion		
Mar. 2		Mini workshop		Lunch		Mini workshop		
Mar. 3		Seminar	Discussion	Lunch	Discussion		Seminar	
Mar. 4		Seminar	Discussion	Lunch				

## Seminars

**February 28** (2<sup>nd</sup> Meeting Room, Administration Bldg. (情報交流棟第2会議室))

13:00-14:30 Takashi Mori (RIKEN)

Microscopic derivations of various quantum Markovian master equations

15:30-17:00 Kazunari Hashimoto (Yamanashi)

Non-adiabatic spin pumping induced by periodic magnetic field: a master equation approach

**March 1** (ASRC Conference Room (先端基礎研究交流棟大会議室))

9:00-10:30 Tomio Petrosky (Texas)

Irreversibility and Complex Spectral Representation of the Liouvillian for Open Quantum and Classical System

13:00-14:30 Kazuyuki Ogata (RCNP, Osaka)

Spatial decoherence in multistep direct reactions

**March 3** (ASRC Conference Room (先端基礎研究交流棟大会議室))

9:30-11:00 Savannah Garmon (Osaka Prefecture)

Anomalous-order exceptional point and non-Markovian Purcell

15:00-16:30 Masaaki Tokieda (Inria)

Open quantum systems approach to heavy-ion fusion reactions

**March 4** (ASRC Conference Room (先端基礎研究交流棟大会議室))

9:30-11:00 Yukinao Akamatsu (Osaka)

Quarkonium as an open quantum system in the quark-gluon plasma

## Mini workshop

**March 2** (ASRC Conference Room (先端基礎研究交流棟大会議室))

9:30-10:10 Takayuki Myo (Osaka Inst. Tech.)

Resonances in light unstable nuclei with complex scaling

10:10-10:50 Yasuhiro Yamaguchi (ASRC, JAEA)

Hadronic molecules with pion exchange and multiquark couplings

Coffee Break

11:20-12:00 Akinobu Dote (KEK)

$\bar{K}$ -nuclear system with complex scaling method

Lunch

13:30-14:10 Philipp Gubler (ASRC, JAEA)

Proton-nucleus transport simulations to study the origin of hadron

14:10-14:50 Denny Sombillo (RCNP, Osaka)

Neutron lifetime anomaly as a consequence of time quantization

Coffee Break

15:20-16:00 Satoshi Tanaka (Osaka Prefecture)

Dynamical Casimir effect in terms of the complex normal mode of the symplectic Floquet-Liouvillean

16:00-17:00 Debashree Chowdhury (Indian Inst. Tech. Roorkee)

Non hermitian physics in topological systems