

Mathematical quantum field theory and related topics

Date : 6 /June/2016 - 8/June/2016

Place : West 1 building D-413, IMI Kyushu University, Fukuoka, Japan

http://www.imi.kyushu-u.ac.jp/pages/joint_research_auditorium.html

Monday 6 June

10 : 00-10 : 50 Tadahiro Miyao (Hokkaido)

Long-range charge order in the two-dimensional ionic Hubbard model

11 : 00-11 : 50 Asao Arai (Hokkaido)

Inequivalence of quantum Dirac fields of different masses and a general structure behind it

13 : 30-14 : 20 Daniel Braak (Augsburg)

Integrable and non-integrable models in quantum optics

14 : 30-15 : 20 Motoichi Ohtsu (Tokyo, emeritus)

Dressed Photons

---Concepts of off-shell photon and applications to light-matter fusion technology---

16 : 00-16 : 50 Masato Wakayama (Kyushu IMI)

Representation theoretic approach to the spectrum of quantum Rabi or its generalized models

17 : 00-17 : 50 Marco Falconi (Rome)

Borh's correspondence principle in the Nelson model

Tuesday 7 June

10 : 00-10 : 50 Tomohiro Kanda (Kyushu)

A KMS state on the resolvent CCR algebra

11 : 00-11 : 50 Fumio Hiroshima (Kyushu)

Semi-relativistic QED

13 : 30-14 : 20 Oliver Matte (Aarhus)

Differentiability properties of stochastic flows in non-relativistic QED

14 : 30-15 : 20 Zied Ammari (Rennes)

On the relationship between non-linear Schroedinger dynamics,
Gross-Pitaevskii hierarchy and Liouville's equation

16 : 00-16 : 50 Nobuhiro Asai (Aichi)

The radial Bargmann measure for the Fock space of type B

Wednesday 8 June

10 : 00-10 : 50 Kazuya Okamura (Nagoya)

On a mathematical treatment of measurement correlations

11 : 00-11 : 50 Masao Hirokawa (Hiroshima)

How is the ground state of the quantum Rabi model dressed with a real photon?

13 : 30-14 : 20 Akira Sakai (Hokkaido)

Self-avoiding walk on random conductors

14 : 30-15 : 20 Hiroshi Ando (Chiba)

Descriptive analysis of self-adjoint operators and the Weyl-von Neumann equivalence relation

15 : 40-16 : 30 Masao Hirokawa (Hiroshima)

Introduction of a mathematical approach to sum-frequency generation in non-linear optics

16 : 45-17 : 45 Tomihiro Hashizume (Hitachi/Tokyo Inst. Tech.) IMI-colloquium

Scanning non-linear optical probe microscopy utilizing tip-enhanced near field optics