



The Abdus Salam
**International Centre
for Theoretical Physics**



Conference on Frontiers in Two-Dimensional Quantum Systems

(smr 3167)

13-17 November 2017

**Abdus Salam International Centre for Theoretical Physics,
Trieste, Italy**

POSTER SESSION:

Tuesday 14 November 17:30-19:30

Preliminary Poster List (as of 8 November 2017)

Anantha Murthy Puneet

Physikalisches Institut, Heidelberg, Germany

High temperature pairing in a strongly interacting two-dimensional Fermi gas

Bai Rukmani

Physical Research laboratory, Ahmedabad, India

Condensates in double-well potential with synthetic gauge potentials and vortex seeding

Barker Adam

Department of Physics, Clarendon Laboratory, Oxford, U.K.

Thermalisation of Bose-Einstein Condensates in Two-Dimensional Magnetic Potentials

Das Priyam

Department of Physics, Indian Institute of Technology, Delhi, India

Generation of many vortices through rotatory Dicke phase transition

DAZA ROMERO WILDER

University of Houston, Natural Science Faculty, Department of Physics, U.S.A.

Virial expansion for the Tan contact and Beth-Uhlenbeck formula from 2D $SO(2; 1)$ anomalies

de Jesus Anderson Luiz

Institute of Physics, Fluminense Federal University, Rio de Janeiro, Brazil

Mapping between charge-monopole and position-dependent mass systems

Filinov Alexey

Institute für Theoretische Physik und Astrophysik, Kiel, Germany

Dynamic and static properties of bosonic dipolar bilayers: reconstruction of density response functions using the sum-rules and stochastic optimization

Franchini Fabio

Ruder Boskovic Institute, Zagreb, Croatia

Spontaneous Ergodicity Breaking in Invariant Matrix Models

Ganiev Orifjon

Department of Physics, National University of Uzbekistan

Explanation of non-linear in-plane resistivity and Hall coefficient in the normal state of cuprates: polaronic approach

Gómez Albarracín Flavia

Instituto de Física de La Plata, Argentina

Order-by-disorder in the XY highly frustrated honeycomb lattice under an external magnetic field

Heydari Nasab Fatemeh

Institute for Advanced Studies in Basic Sciences, Zanjan, Iran

Inhomogeneous hardcore Bose Hubbard mixture: Quantum and thermal phase diagram

Hovhannisyan Vahan

A. I. Alikhanyan National Science Laboratory, Yerevan, Armenia

A Brief Review on the Properties of the Spin-1 Ising-Heisenberg Diamond Chain Models

Iqbal Yasir

Indian Institute of Technology, Madras, India

Functional renormalization group methods for low-dimensional spin systems

Karakuzu Seher

SISSA-International School for Advanced Studies, Trieste, Italy

Superconductivity, charge-density waves, antiferromagnetism, and phase separation in the Hubbard-Holstein model

Khan Ayan

SEAS, Bennett University, Delhi, India

Interplay of Dimensionality, Interaction and Disorder in Two-Dimensional Fermi Systems

Khudayberdiev Zafar

Institute of Nuclear Physics, ASU, Tashkent, Uzbekistan

Anderson metal-insulator transition and pseudogap phenomena in underdoped cuprates

Liang Long

Aalto University, Espoo, Finland

Wave-packet dynamics of Bogoliubov quasiparticles: Quantum metric effects

Luick Niclas

Universität Hamburg, Germany

Two-Dimensional Homogeneous Fermi Gases

Macaluso Elia

INO-CNR BEC Center & University of Trento, Italy

Hard Wall Confinements of $\nu = 1/2$ Fractional Quantum Hall Liquids in Disk-shaped and Ring-shaped Geometries

Maccari Ilaria

University La Sapienza of Rome, Italy

Broadening of the BKT transition in disordered superconducting films

Mallik Aabhaas

Indian Institute of Science, Bengaluru, India

Crucial Role of Internal Collective Modes in Underdoped Cuprates

Martone Giovanni Italo

Laboratoire de Physique Théorique et Modèles Statistiques (LPTMS), Orsay, France

Quantum phases and collective excitations of a spin-orbit-coupled

Bose-Einstein condensate in a one-dimensional optical lattice

Nandy Snehasish

Indian Institute of Technology, Kharagpur, India

Anomalous transport near the Lifshitz transition at the LaAlO₃/SrTiO₃ interface

Obodo Kingsley

University of South Africa, Pretoria, South Africa

Influence of transition metal doping on the electronic and optical properties of ReS₂ and ReSe₂

mono-layers

Osafire Omosede

Federal University of Petroleum Resources Effurun, Warri, Nigeria

Strongly correlated four electron systems away from half filling

Ota Miki

INO-CNR BEC Center & Università di Trento, Italy

Second Sound in Two-Dimensional Bose Gas: From Weakly Interacting Regime to Strongly

Interacting Regime

Pal Sukla

Physical Research Laboratory, Ahmedabad, India

On the mode evolution study of segregated condensate mixtures in quasi-2D confinement

Pashangpour Mansoureh

Islamic Azad University, Tehran, Iran

Structural, electric and transport properties of borophene and fully hydrogenated borophene

within density functional theory

Pradhan Subhasree

Indian Institute of Technology, Kharagpur, india

Orbital Magnetic Field on Several Correlated Systems

Rammelmüller Lukas

Universität Darmstadt, Germany

Ground state of the two-dimensional Fermi gas: Essential properties from few to many body

Rani Luxmi

Physical Research Laboratory, Ahmedabad, India

Dynamical Electrical Conductivity of Graphene

Roy Arko

Max Planck Institute for the Physics of Complex Systems, Dresden, Germany

Finite temperature expansion dynamics of annular condensates

Sharma Rajeshkumar

Sardar Vallabhbhai National Institute of Technology, Surat, India

Quantum Monte Carlo study of excitons and biexcitons in a mass-asymmetric electron-hole bilayer

Shiranzaei Mahroo

Damghan University, Iran

Impurity scattering on the surface of topological insulator thin films

Sobirey Tilman

Universität Hamburg, Germany

Creating Homogeneous Two-Dimensional Fermi Gases

Suthar Kuldeep

Indian Institute of Technology, Ahmedabad, India

Collective excitations and thermal fluctuations driven miscibility of binary condensates in optical lattices

Tanatar Bilal

Bilkent University, Ankara, Turkey

Density Wave Instability and Collective Modes in Bilayer Dipolar Systems

Toniolo Umberto

Swinburne University of Technology, Melbourne, Australia

Dimensional crossover in a strongly interacting ultracold atomic Fermi gas