

**The physics of strongly
interacting matter: neutron
stars, cold atomic gases and
related systems**

Report of Contributions

Contribution ID: 1

Type: **not specified**

XXXX

Presenter: XXX, xx

Contribution ID: 2

Type: **not specified**

Welcome

Monday, 22 April 2024 09:30 (15 minutes)

Presenter: VAN KOLCK, Ubirajara (IJCLab Orsay & University of Arizona)

Contribution ID: 3

Type: **not specified**

Introduction

Monday, 22 April 2024 09:45 (45 minutes)

Presenters: SCHWENK, Achim (TU Darmstadt); WATTS, Anna (University of Amsterdam); FERLAINO, Francesca (Universität Innsbruck; IQOQI, ÖAW)

Contribution ID: 4

Type: **not specified**

Coffee break

Contribution ID: 5

Type: **not specified**

Insight from radio observations of neutron stars

Monday, 22 April 2024 11:00 (45 minutes)

Presenter: KRAMER, Michael (Max-Planck-Institut fuer Radioastronomie)

Contribution ID: 6

Type: **not specified**

Discussion

Monday, 22 April 2024 11:45 (15 minutes)

Contribution ID: 7

Type: **not specified**

Rotating dipolar gases: supersolids, vortices and glitches

Monday, 22 April 2024 12:00 (45 minutes)

Presenter: POLI, Elena (Innsbruck University)

Contribution ID: **8**

Type: **not specified**

Discussion

Monday, 22 April 2024 12:45 (15 minutes)

Contribution ID: 9

Type: **not specified**

Realisation of a Laughlin state of two rapidly rotating fermions

Monday, 22 April 2024 15:00 (45 minutes)

Presenter: GALKA, Maciej (Physikalisches Institute, Universitat Heidelberg)

Contribution ID: **10**

Type: **not specified**

Discussion

Monday, 22 April 2024 15:45 (15 minutes)

Contribution ID: 11

Type: **not specified**

Propagation of sound in density modulated superfluids

Monday, 22 April 2024 16:30 (45 minutes)

Presenter: STRINGARI, Sandro (Università di Trento)

Contribution ID: **12**

Type: **not specified**

Discussion

Monday, 22 April 2024 17:15 (15 minutes)

Contribution ID: 13

Type: **not specified**

Astronomical, nuclear structure, and heavy ion observables probing neutron rich matter

Tuesday, 23 April 2024 09:30 (45 minutes)

Presenter: HOROWITZ, Charles (Indiana University)

Contribution ID: **14**

Type: **not specified**

Discussion

Tuesday, 23 April 2024 10:15 (15 minutes)

Contribution ID: 15

Type: **not specified**

Constraints on the nuclear EoS from heavy ion collisions at intermediate energies

Tuesday, 23 April 2024 11:00 (45 minutes)

Presenter: COLONNA, Maria (INFN-LNS)

Contribution ID: **16**

Type: **not specified**

Discussion

Tuesday, 23 April 2024 11:45 (15 minutes)

Contribution ID: 17

Type: **not specified**

Chiral effective field theory for nuclear forces and the dense matter equation of state

Tuesday, 23 April 2024 12:00 (30 minutes)

Presenter: SVENSSON, Isak (TU Darmstadt)

Contribution ID: **18**

Type: **not specified**

Discussion

Tuesday, 23 April 2024 12:30 (15 minutes)

Contribution ID: **19**

Type: **not specified**

Neutron star mergers in gravitational-wave astronomy

Tuesday, 23 April 2024 15:00 (45 minutes)

Presenter: READ, Jocelyn (CSU Fullerton)

Contribution ID: **20**

Type: **not specified**

Discussion

Tuesday, 23 April 2024 15:45 (15 minutes)

Contribution ID: 21

Type: **not specified**

The large-charge effective field theory and neutron matter

Tuesday, 23 April 2024 16:30 (45 minutes)

Presenter: BEANE, Silas (University of Washington, USA)

Contribution ID: 22

Type: **not specified**

Discussion

Tuesday, 23 April 2024 17:15 (15 minutes)

Contribution ID: 23

Type: **not specified**

The contribution of X-ray astrophysics to the understanding of strongly interacting matter

Wednesday, 24 April 2024 09:30 (45 minutes)

Presenter: GUILLOT, Sebastien (IRAP / CNRS)

Contribution ID: 24

Type: **not specified**

Discussion

Wednesday, 24 April 2024 10:15 (15 minutes)

Contribution ID: 25

Type: **not specified**

Nuclear pastas and superfluidity in neutron star crusts

Wednesday, 24 April 2024 11:00 (45 minutes)

Presenter: CHAMEL, Nicolas (Université Libre de Bruxelles, Belgium)

Contribution ID: 26

Type: **not specified**

Discussion

Wednesday, 24 April 2024 11:45 (15 minutes)

Contribution ID: 27

Type: **not specified**

Constraining the dense matter EOS with new NICER measurements and new chiral EFT inputs

Wednesday, 24 April 2024 12:00 (30 minutes)

Presenter: MENDES, Melissa (Technische Universität Darmstadt)

Contribution ID: **28**

Type: **not specified**

Discussion

Wednesday, 24 April 2024 12:30 (15 minutes)

Contribution ID: 29

Type: **not specified**

Nonrelativistic conformal field theory and its applications

Wednesday, 24 April 2024 15:00 (45 minutes)

Presenter: SON, Dam (University of Chicago)

Contribution ID: **30**

Type: **not specified**

Discussion

Wednesday, 24 April 2024 15:45 (15 minutes)

Contribution ID: 31

Type: **not specified**

Curved and Expanding Spacetimes in a Bose-Einstein Condensate

Wednesday, 24 April 2024 16:30 (45 minutes)

Presenter: KATH, Elinor (Kirchhoff-Institut für Physik, Universität Heidelberg)

Contribution ID: **32**

Type: **not specified**

Discussion

Wednesday, 24 April 2024 17:15 (15 minutes)

Contribution ID: 33

Type: **not specified**

Transport Properties of Ultracold Gases and Dense Matter

Thursday, 25 April 2024 09:30 (45 minutes)

Presenter: SCHAEFER, Thomas (North Carolina State University)

Contribution ID: **34**

Type: **not specified**

Discussion

Thursday, 25 April 2024 10:15 (15 minutes)

Contribution ID: 35

Type: **not specified**

Few- and many-body physics with box-trapped 39K Bose gases

Thursday, 25 April 2024 11:00 (45 minutes)

Presenter: EIGEN, Christoph

Contribution ID: **36**

Type: **not specified**

Discussion

Thursday, 25 April 2024 11:45 (15 minutes)

Contribution ID: 37

Type: **not specified**

Ultracold Fermi gases as benchmark platform for neutron star studies: density functional theory approach

Thursday, 25 April 2024 12:00 (30 minutes)

Presenter: WLAZŁOWSKI, Gabriel (Warsaw University of Technology)

Contribution ID: **38**

Type: **not specified**

Discussion

Thursday, 25 April 2024 12:30 (15 minutes)

Contribution ID: 39

Type: **not specified**

Constraints on phase transitions in neutron star matter

Thursday, 25 April 2024 15:00 (45 minutes)

Presenter: WEISE, Wolfram (Technical University of Munich)

Contribution ID: **40**

Type: **not specified**

Discussion

Thursday, 25 April 2024 15:45 (15 minutes)

Contribution ID: 41

Type: **not specified**

Dynamics in the Inner Crust: Heavy Impurity in Fermi Superfluid

Thursday, 25 April 2024 16:30 (30 minutes)

Presenter: Dr PEĆAK, Daniel (Warsaw University of Technology)

Contribution ID: 42

Type: **not specified**

Discussion

Thursday, 25 April 2024 17:00 (15 minutes)

Contribution ID: 43

Type: **not specified**

Pions and hyperons in neutron star mergers

Friday, 26 April 2024 09:30 (45 minutes)

Presenter: BAUSWEIN, Andreas

Contribution ID: 44

Type: **not specified**

Discussion

Friday, 26 April 2024 10:15 (15 minutes)

Contribution ID: 45

Type: **not specified**

Dense QCD equation of state: duality and implications from lattice QCD

Friday, 26 April 2024 11:00 (45 minutes)

Presenter: FUJIMOTO, Yuki

Contribution ID: 46

Type: **not specified**

Discussion

Friday, 26 April 2024 11:45 (15 minutes)

Contribution ID: 47

Type: **not specified**

What neutron stars tell about the hadron-quark phase transition

Friday, 26 April 2024 12:00 (30 minutes)

Presenter: WOLF, György (Wigner RCP)

Contribution ID: **48**

Type: **not specified**

Discussion

Friday, 26 April 2024 12:30 (15 minutes)

Contribution ID: 49

Type: **not specified**

Bayesian inference of thermal effects in dense matter

Friday, 26 April 2024 14:00 (30 minutes)

Presenter: RADUTA, Adriana R. (IFIN-HH, Bucharest)

Contribution ID: **50**

Type: **not specified**

Discussion

Friday, 26 April 2024 14:30 (15 minutes)

Contribution ID: 51

Type: **not specified**

Ab initio Green's functions approach for homogeneous nuclear matter

Friday, 26 April 2024 14:45 (30 minutes)

Presenter: MARINO, Francesco (Institut für Kernphysik, Johannes Gutenberg Universität, Mainz, Germany)

Contribution ID: 52

Type: **not specified**

Discussion

Friday, 26 April 2024 15:15 (15 minutes)