

Hirscheegg 2023 - Effective field theories for nuclei and nuclear matter

Report of Contributions

Contribution ID: 2

Type: **Contributed talk**

Revisiting chiral low-momentum interactions for medium-mass nuclei

Monday, 16 January 2023 11:30 (30 minutes)

Presenter: ARTHUIS, Pierre (TU Darmstadt)

Contribution ID: 3

Type: **Invited talk**

Electromagnetic observables from first principles

Tuesday, 17 January 2023 09:00 (40 minutes)

Presenter: BACCA, Sonia (JGU Mainz)

Contribution ID: 4

Type: **Contributed talk**

Mean-field calculations with regularized pseudopotentials

Friday, 20 January 2023 11:30 (30 minutes)

Presenter: BENNACEUR, Karim (Université Lyon)

Contribution ID: 5

Type: **Contributed talk**

Neutrinoless double-beta decay from an effective field theory for heavy nuclei

Wednesday, 18 January 2023 11:30 (30 minutes)

Presenter: BRASE, Catharina (TU Darmstadt)

Contribution ID: 6

Type: **Invited talk**

Nuclear DFT as an effective theory

Thursday, 19 January 2023 09:40 (40 minutes)

Presenter: DOBACZEWSKI, Jacek (University of York)

Contribution ID: 7

Type: **Invited talk**

Collective excitations from novel ab initio many-body methods

Thursday, 19 January 2023 17:10 (40 minutes)

Presenter: DUGUET, Thomas (CEA Saclay)

Contribution ID: 8

Type: **Invited talk**

Ab initio nuclear predictions

Thursday, 19 January 2023 10:50 (40 minutes)

Presenter: EKSTRÖM, Andreas (Chalmers University of Technology)

Contribution ID: 9

Type: **Invited talk**

New insights into Renormalization & regularization of nuclear forces

Monday, 16 January 2023 10:50 (40 minutes)

Presenter: EPELBAUM, Evgeny (RU Bochum)

Contribution ID: **10**

Type: **Invited talk**

Precision nuclear theory

Monday, 16 January 2023 09:40 (40 minutes)

Presenter: FORSEN, Christian (Chalmers University of Technology)

Contribution ID: 11

Type: **Invited talk**

Frontiers of Uncertainty Quantification for EFTs

Monday, 16 January 2023 09:00 (40 minutes)

Presenter: FURNSTAHL, Dick (Ohio State University)

Contribution ID: 13

Type: **Invited talk**

Recent Experimental Searches for a Tetraneutron

Tuesday, 17 January 2023 17:50 (40 minutes)

Presenter: GERNHÄUSER, Roman (TU München)

Contribution ID: 14

Type: **Contributed talk**

Relativistic nuclear collisions as a new laboratory to test effective theories for nuclei

Thursday, 19 January 2023 18:30 (30 minutes)

Presenter: GIACALONE, Giuliano (Uni Heidelberg)

Contribution ID: 15

Type: **Contributed talk**

Implications of the unitarity limit for neutron spectra of halo nuclei

Wednesday, 18 January 2023 18:30 (30 minutes)

Presenter: GÖBEL, Matthias (TU Darmstadt)

Contribution ID: 16

Type: **Contributed talk**

Recent progress on in-medium similarity renormalization group calculations with three-body operators

Monday, 16 January 2023 18:30 (30 minutes)

Presenter: HEINZ, Matthias (TU Darmstadt)

Contribution ID: 17

Type: **Invited talk**

A Status Update on IMSRG Methods in Nuclear Physics

Monday, 16 January 2023 16:30 (40 minutes)

Presenter: HERGERT, Heiko (Michigan State University)

Contribution ID: **18**

Type: **Invited talk**

Ab initio theory for heavy nuclei and searches for new physics

Friday, 20 January 2023 09:40 (40 minutes)

Presenter: HOLT, Jason (TRIUMF)

Contribution ID: **19**

Type: **Invited talk**

Many-Body Perturbation Theory and Beyond with Nuclear Contact Interactions

Wednesday, 18 January 2023 17:10 (40 minutes)

Presenter: KAISER, Norbert (TU München)

Contribution ID: 20

Type: **Invited talk**

Nuclear equation of state for arbitrary proton fraction and temperature

Tuesday, 17 January 2023 17:10 (40 minutes)

Presenter: KELLER, Jonas (TU Darmstadt)

Contribution ID: 21

Type: **Invited talk**

Gaussian characterization of the universal window

Wednesday, 18 January 2023 17:50 (40 minutes)

Presenter: KIEVSKY, Alejandro (INFN Pisa)

Contribution ID: 22

Type: **Contributed talk**

Hyperon-Nucleon Interaction Constrained by Light Hypernuclei

Tuesday, 17 January 2023 18:30 (30 minutes)

Presenter: KNÖLL, Marco (TU Darmstadt)

Contribution ID: 23

Type: **Invited talk**

EFT calculations and finite-volume techniques for nuclear few-body systems

Wednesday, 18 January 2023 09:40 (40 minutes)

Presenter: KÖNIG, Sebastian (NC State University)

Contribution ID: 24

Type: **Invited talk**

Wave function matching for the quantum many-body problem

Thursday, 19 January 2023 16:30 (40 minutes)

Presenter: LEE, Dean (Michigan State University)

Contribution ID: 25

Type: **Contributed talk**

Approaching a SU(3)-Octet Density Functional Theory

Friday, 20 January 2023 17:30 (30 minutes)

Presenter: LENSKE, Horst (JLU Gießen)

Contribution ID: 26

Type: **Invited talk**

Recent developments in NLEFT

Wednesday, 18 January 2023 09:00 (40 minutes)

Presenter: MEIßNER, Ulf-G. (Uni Bonn and FZ Jülich)

Contribution ID: 27

Type: **Invited talk**

Nuclear matrix elements for fundamental symmetries based on EFTs

Wednesday, 18 January 2023 10:50 (40 minutes)

Presenter: MENENDEZ, Javier (University of Barcelona)

Contribution ID: **28**

Type: **Invited talk**

Nuclear ab initio calculations for heavy-mass nuclei

Monday, 16 January 2023 17:10 (40 minutes)

Presenter: MIYAGI, Takayuki (TU Darmstadt)

Contribution ID: 29

Type: **Invited talk**

Ab initio nuclear structure & reaction theory: Applications to astrophysics & fundamental symmetries

Friday, 20 January 2023 09:00 (40 minutes)

Presenter: NAVRATIL, Petr (TRIUMF)

Contribution ID: 30

Type: **Invited talk**

Lattice QCD calculations of Nuclear Physics at unphysical quark masses

Wednesday, 18 January 2023 16:30 (40 minutes)

Presenter: PARREÑO, Assumpta (University of Barcelona)

Contribution ID: **31**

Type: **Invited talk**

Fundamental Symmetries with Nuclei

Monday, 16 January 2023 17:50 (40 minutes)

Presenter: PASTORE, Saori (Washington University St Louis)

Contribution ID: 32

Type: **Invited talk**

Weak interactions in effective field theory

Tuesday, 17 January 2023 10:50 (40 minutes)

Presenter: PLATTER, Lucas (University of Tennessee Knoxville)

Contribution ID: 33

Type: **Invited talk**

Nambu Covariant Green's Functions Theory for Strongly Correlated Superfluids

Friday, 20 January 2023 10:50 (40 minutes)

Presenter: RIOS HUGUET, Arnau (University of Barcelona)

Contribution ID: 34

Type: **Invited talk**

Entanglement and quantum simulations of nuclear systems in effective model spaces

Thursday, 19 January 2023 17:50 (40 minutes)

Presenter: ROBIN, Caroline (Uni Bielefeld and GSI)

Contribution ID: 35

Type: **Invited talk**

Nuclear ab initio studies for neutrino oscillations

Tuesday, 17 January 2023 09:40 (40 minutes)

Presenter: SOBCZYK, Joanna (JGU Mainz)

Contribution ID: 36

Type: **Invited talk**

Testing chiral EFT in nuclear matter with neutron-star observations (and nuclear experiments)

Tuesday, 17 January 2023 16:30 (40 minutes)

Presenter: TEWS, Ingo (Los Alamos National Laboratory)

Contribution ID: **38**

Type: **Invited talk**

High-resolution laser spectroscopy: a powerful tool to unravel the mysteries of the atomic nucleus

Thursday, 19 January 2023 09:00 (40 minutes)

Presenter: VAZQUEZ RODRIGUEZ, Liss (CERN)

Contribution ID: 40

Type: **Contributed talk**

Energy-density functionals from local chiral interactions

Thursday, 19 January 2023 11:30 (30 minutes)

Presenter: ZUREK, Lars (TU Darmstadt)

Contribution ID: 41

Type: **Contributed talk**

Uncertainty quantification, verification and validation and predictions in pion-less EFT

Tuesday, 17 January 2023 11:30 (30 minutes)

Presenter: GAZIT, Doron (Hebrew University of Jerusalem)

Contribution ID: 42

Type: **Contributed talk**

Large-Nc constraints for nuclear EFTs in and beyond the Standard Model

Friday, 20 January 2023 16:30 (30 minutes)

Presenter: RICHARDSON, Thomas (JGU Mainz)

Contribution ID: 43

Type: **Contributed talk**

Many-body effects of collective neutrino oscillations

Friday, 20 January 2023 17:00 (30 minutes)

Presenter: XIONG, Zewei (GSI)