### Frontiers in Nuclear Structure Theory

### **Report of Contributions**

Frontiers in Nuc  $\,\,\cdots\,\,$  / Report of Contributions

Welcome

Contribution ID: 1 Type: not specified

#### Welcome

Monday 23 May 2022 09:30 (10 minutes)

Presenter: CEDERWALL, Bo (KTH)

**Session Classification:** session 1

Contribution ID: 2 Type: not specified

# Artificial Intelligence and Machine Learning in Nuclear Physics

Monday 23 May 2022 09:40 (35 minutes)

https://mhjensenseminars.github.io/Machine Learning Talk/doc/pub/KTHMat 23/html/KTHMat 23-reveal.html

**Presenter:** HJORTH-JENSEN, Morten

**Session Classification:** session 1

Contribution ID: 3 Type: not specified

### Nuclear physics experiments to advance the ab initio frontier

Monday 23 May 2022 10:15 (35 minutes)

Presenter: PETRI, Marina

Session Classification: session 1

Contribution ID: 4 Type: **not specified** 

# Effective interactions and effective operators from the No-Core Shell Model (zoom)

Monday 23 May 2022 10:50 (35 minutes)

**Presenter:** SMIRNOVA, Nadezda

Session Classification: session 1

Contribution ID: 5 Type: **not specified** 

### Clustering effects in fission of heavy and superheavy nuclei

Monday 23 May 2022 13:30 (35 minutes)

Presenter: ÅBERG, Sven

**Session Classification:** session 2

Contribution ID: 6 Type: not specified

### Recent advances in the systematics of emission processes (zoom)

Monday 23 May 2022 14:05 (35 minutes)

Presenter: DELION, Doru

**Session Classification:** session 2

Contribution ID: 7 Type: **not specified** 

# Alpha clusterization for medium and heavy nuclei from shell model (zoom)

Monday 23 May 2022 14:40 (35 minutes)

Presenter: ID BETAN, Rodolfo

**Session Classification:** session 2

Contribution ID: 8 Type: not specified

#### Some open questions in neutrino physics (zoom)

Wednesday 25 May 2022 13:30 (35 minutes)

Presenter: CIVITARESE, Osvaldo (Department of Physics. University of La Plata. Argentina)

Session Classification: session Wednesday afternoon

Contribution ID: 9 Type: **not specified** 

# Light-front three-body model of the proton and loffe-time imaging (zoom)

Wednesday 25 May 2022 14:05 (35 minutes)

Presenter: YDREFORS, Emanuel

Session Classification: session Wednesday afternoon

Contribution ID: 10 Type: not specified

#### On the life of Jan Blomqvist

Tuesday 24 May 2022 16:20 (30 minutes)

**Presenter:** LIOTTA, Roberto

Session Classification: Speical session to honor Professor Jan Blomqvist on the occasion of

his 90th birthday.

Contribution ID: 11 Type: not specified

# Emerging concepts in nuclear structure based on the shell model (zoom)

Tuesday 24 May 2022 10:10 (35 minutes)

Presenter: OTSUKA, Takaharu

**Session Classification:** Tuesday morning 1

Contribution ID: 12 Type: not specified

#### Shape Changes in Mirror Nuclei (zoom)

Tuesday 24 May 2022 09:35 (35 minutes)

Presenter: WIMMER, Kathrin

**Session Classification:** Tuesday morning 1

Contribution ID: 13 Type: not specified

### Mirror symmetry breaking in nuclei near driplines (zoom)

Tuesday 24 May 2022 09:00 (35 minutes)

Presenter: XU, Furong

 $\textbf{Session Classification:} \ \ \textbf{Tuesday morning 1}$ 

Contribution ID: 14 Type: not specified

### The role of the nuclear radius in Mirror energy differences (zoom)

Tuesday 24 May 2022 11:15 (35 minutes)

Presenter: LENZI, Silvia

**Session Classification:** Tuesday morning 2

Contribution ID: 15 Type: not specified

#### Beta decay of proton rich Tz=-2 nuclei

Tuesday 24 May 2022 11:50 (35 minutes)

Presenter: RUBIO, Berta

**Session Classification:** Tuesday morning 2

Contribution ID: 16 Type: not specified

# The symmetry structure of octupole phonons in nuclei (zoom)

Tuesday 24 May 2022 13:30 (35 minutes)

**Presenter:** VAN ISACKER, Piet

Session Classification: Tuesday afternoon

Contribution ID: 17 Type: not specified

#### Nuclear structure aspects in the 100Sn region

Tuesday 24 May 2022 14:05 (35 minutes)

Presenter: GORSKA, Magda

Session Classification: Tuesday afternoon

Contribution ID: 18 Type: not specified

#### **Density Functional Theory for Nuclear Reactions**

Tuesday 24 May 2022 15:45 (35 minutes)

Presenter: MAGIERSKI, Piotr

Session Classification: Tuesday afternoon

Contribution ID: 19 Type: not specified

### Towards microscopic optical potentials for symmetry breaking nuclei

Wednesday 25 May 2022 09:00 (35 minutes)

Presenter: CARLSSON, Gillis

Session Classification: Session Wednesday morning

Contribution ID: 20 Type: not specified

# Proton-neutron pairing and quartet correlations in N $\approx$ Z nuclei (zoom)

Wednesday 25 May 2022 09:35 (35 minutes)

Presenter: SANDULESCU, Nicu

Session Classification: Session Wednesday morning

Contribution ID: 21 Type: not specified

#### Quarteting in N=Z nuclei (zoom)

Wednesday 25 May 2022 10:10 (35 minutes)

**Presenter:** SAMBATARO, Michelangelo

Session Classification: Session Wednesday morning

Contribution ID: 22 Type: not specified

# Ab initio no-core shell model study of lighter nuclei with realistic NN interactions (zoom)

Wednesday 25 May 2022 10:45 (35 minutes)

**Presenter:** SRIVASTAVA, Praveen

Session Classification: Session Wednesday morning

Contribution ID: 23 Type: not specified

# Shell model applications to neutron capture reaction studies (zoom)

Monday 23 May 2022 16:20 (35 minutes)

Presenter: SEIJA, Kamila

**Session Classification:** session 3

Contribution ID: 24 Type: not specified

#### Collective effects in superfluid nuclei

Monday 23 May 2022 15:45 (35 minutes)

Presenter: LITVINOVA, Elena

**Session Classification:** session 3

Contribution ID: 25 Type: not specified

### Neutron-proton pairing through transfer reactions (zoom)

Tuesday 24 May 2022 14:40 (35 minutes)

Presenter: ASSIÉ, Marlène

Session Classification: Tuesday afternoon

Contribution ID: 26

Type: not specified

# Radial overlap correction to nuclear superallowed $0^+ \to 0^+$ Fermi $\beta$ decays using the shell model with Hartree-Fock radial wave functions (zoom)

Monday 23 May 2022 16:55 (20 minutes)

Presenter: XAYAVONG, Latsamy (National University of Laos)

**Session Classification:** session 3

Contribution ID: 27 Type: not specified

#### Shell model studies in nuclear beta decay (zoom)

Wednesday 25 May 2022 14:40 (20 minutes)

Presenter: KUMAR, Anil

Session Classification: session Wednesday afternoon

Contribution ID: 28 Type: not specified

### Algebraic description of the finite-N triaxial rotor mode

Wednesday 25 May 2022 15:00 (20 minutes)

Presenter: ZHANG, Yu

Session Classification: session Wednesday afternoon