

Theory Service for the Low Energy Nuclear Physics Community: a Hands-on Workshop

Report of Contributions

Contribution ID: 1

Type: **not specified**

Theo4Exp –Idea and functioning

Monday 7 July 2025 09:00 (10 minutes)

Contribution ID: 2

Type: **not specified**

Realistic Phenomenological Nuclear Mean Field Theory: Physics Background for Experimentalists

Monday 7 July 2025 09:10 (1 hour)

Presenter: DUDEK, Jerzy (IPHC, Strasbourg, France; IFJ, Cracow, Poland)

Session Classification: MeanField4Exp and Physics Behind

Contribution ID: 3

Type: **not specified**

MeanField4Exp. Examples of service applications: Single nucleon energies in deformed nuclei

Monday 7 July 2025 10:40 (35 minutes)

Presenter: DUDEK, Jerzy (UdS and IPHC/IN2P3/CNRS, Strasbourg)

Session Classification: MeanField4Exp and Physics Behind

Contribution ID: 4

Type: **not specified**

MeanField4Exp. Examples of service applications: Macroscopic-Microscopic Method (MMM) for potential energy calculations in the user chosen formats

Monday 7 July 2025 11:15 (35 minutes)

Presenter: MAZUREK, Kasia (IFJ, Cracow, Poland)

Session Classification: MeanField4Exp and Physics Behind

Contribution ID: 5

Type: **not specified**

**MeanField4Exp. Examples of service applications:
Nuclear shape evolution with spin, impact on the
Giant Dipole Resonance Strength –comparison with
experiment**

Monday 7 July 2025 11:50 (35 minutes)

Presenter: MAJ, Adam (IFJ, Cracow, Poland)

Session Classification: MeanField4Exp and Physics Behind

Contribution ID: 6

Type: **not specified**

Hands-on practice on the MeanField4Exp platform

Monday 7 July 2025 14:00 (2 hours)

Session Classification: MeanField4Exp and Physics Behind

Contribution ID: 7

Type: **not specified**

Hands-on practice on the Mean4Exp platform. Final discussion, feedback on the platform

Monday 7 July 2025 16:30 (1h 30m)

Session Classification: MeanField4Exp and Physics Behind

Contribution ID: 8

Type: **not specified**

Optical Model and Inelastic Scattering

Tuesday 8 July 2025 09:00 (1 hour)

Presenters: MORO, Antonio (University of Seville); LAY, José Antonio (University of Seville)

Session Classification: Reaction4Exp and Physics Behind

Contribution ID: 9

Type: **not specified**

Transfer reactions and Coulomb Breakup

Tuesday 8 July 2025 10:30 (1 hour)

Presenter: GÓMEZ-RAMOS, Mario

Session Classification: Reaction4Exp and Physics Behind

Contribution ID: **10**

Type: **not specified**

Do you know how to use the Reaction4Exp platform?

Tuesday 8 July 2025 11:30 (1 hour)

Presenter: MUÑOZ-CHIMBO, Carla T.

Session Classification: Reaction4Exp and Physics Behind

Contribution ID: **11**

Type: **not specified**

Hands-on practice on the Reaction4Exp platform

Tuesday 8 July 2025 14:00 (2 hours)

Session Classification: Reaction4Exp and Physics Behind

Contribution ID: 12

Type: **not specified**

Hands-on practice on the Reaction4Exp platform. Final discussion, feedback on the platform.

Tuesday 8 July 2025 16:30 (1h 30m)

Session Classification: Reaction4Exp and Physics Behind

Contribution ID: 13

Type: **not specified**

Nuclear Density Functional Theory for ground-state and collective excitations

Wednesday 9 July 2025 09:00 (1 hour)

Author: COLO, Gianluca (University of Milano and INFN, Milan/I)

Co-author: VIGEZZI, Enrico

Presenters: VIGEZZI, Enrico; COLO, Gianluca (University of Milano and INFN, Milan/I)

Session Classification: Structure4Exp and Physics Behind

Contribution ID: 14

Type: **not specified**

The realistic shell model and the KSHELL implementation

Wednesday 9 July 2025 10:30 (1 hour)

Presenter: GARGANO, Angela (INFN)

Session Classification: Structure4Exp and Physics Behind

Contribution ID: 15

Type: **not specified**

Do you know how to use the Structure4Exp platform?

Wednesday 9 July 2025 11:30 (1 hour)

Presenter: MOUMENE, Imane (University of Bratislava, Slovakia)

Session Classification: Structure4Exp and Physics Behind

Contribution ID: **16**

Type: **not specified**

Hands-on practice on the Structure4Exp platform

Wednesday 9 July 2025 14:00 (2 hours)

Session Classification: Structure4Exp and Physics Behind

Contribution ID: 17

Type: **not specified**

Hands-on practice on the Structure4Exp platform. Final discussion, feedback on the platform

Wednesday 9 July 2025 16:30 (1h 30m)

Session Classification: Structure4Exp and Physics Behind