

PAINT2025 - Workshop on Progress in Ab Initio Nuclear Theory

Tuesday, 25 February 2025

Morning Talks (09:00 - 10:30)

-Conveners: Petr Navratil

| time | [id] title | presenter |
|-------|--|------------------|
| 09:00 | [2] Introduction | NAVRATIL, Petr |
| 09:30 | [3] Chiral nuclear interactions: New developments | EPELBAUM, Evgeny |
| 10:00 | [4] Chiral interactions with gradient flow regulator | KREBS, Hermann |

Morning Talks (11:00 - 13:00)

-Conveners: Petr Navratil

| time | [id] title | presenter |
|-------|--|----------------|
| 11:00 | [5] N3LO_Texas — Towards more accurate chiral interactions | HAGEN, Gaute |
| 11:30 | [6] Explicit Estimation of Truncation Uncertainties in Chiral EFT | HEIHOFF, Sven |
| 12:00 | [7] Inferring three-nucleon couplings from multi-messenger neutron-star observations | SVENSSON, Isak |
| 12:30 | [38] TBA | MCCOY, Anna |

Wednesday, 26 February 2025

Morning Talks (09:00 - 10:30)

-Conveners: Jason Holt

| time | [id] title | presenter |
|-------|--|------------------|
| 09:00 | [14] Update on IMSRG Developments | HERGERT, Heiko |
| 09:30 | [15] Explorations with the In-Medium No-core Shell Model | GYSBERS, Peter |
| 10:00 | [16] Symmetry breaking: spurious and spontaneous | STROBERG, Ragnar |

Morning Talks (11:00 - 12:30)

-Conveners: Jason Holt

| time | [id] title | presenter |
|-------|---|--------------------|
| 11:00 | [18] Recent advances in precise forbidden β -decays for BSM searches | GLICK-MAGID, Ayala |
| 11:30 | [19] Quantifying and reducing uncertainties in ab initio calculations for new physics studies | HEINZ, Matthias |
| 12:00 | [37] A new class of three-nucleon forces in Chiral EFT | DEKENS, Wouter |

Thursday, 27 February 2025

Morning Talks (09:00 - 10:30)

-Conveners: Thomas Papenbrock

| time | [id] title | presenter |
|-------|--|-------------------|
| 09:00 | [24] Towards ab initio calculations for nucleosynthesis | MUMPOWER, Matthew |
| 09:30 | [25] Ab initio nuclear mass predictions at N=126 and the third r-process abundance peak | VASSH, Nicole |
| 10:00 | [26] Radiative Corrections for Superaligned Beta Decays Transition Densities with Coupled-Cluster Theory | NOVARIO, Sam |

Morning Talks (11:00 - 13:00)

-Conveners: Thomas Papenbrock

| time | [id] title | presenter |
|-------|---|--------------------|
| 11:00 | [27] Diagrammatic Monte Carlo at T=0 and recent results with SCGF | BARBIERI, Carlo |
| 11:30 | [28] Evidence for multimodal superfluidity of neutrons | LEE, Dean |
| 12:00 | [29] Computing nuclear responses in time-dependent coupled-cluster theory | BONAITI, Francesca |
| 12:30 | [39] Capturing many-body correlations at polynomial cost | SCALESI, Alberto |

Friday, 28 February 2025

Morning Talks (09:30 - 11:00)

-Conveners: Carlo Barbieri

| time | [id] title | presenter |
|-------|--|----------------------|
| 09:30 | [30] Putting the subleading three-nucleon force to use | PALKANOGLU, Georgios |
| 10:00 | [31] Structure and electric dipole response of open-shell nuclei from coupled-cluster theory | MARINO, Francesco |
| 10:30 | [32] Corrections to neutrinoless double-beta decay evaluated up to N2LO | JOKINIEMI, Lotta |

Morning Talks (11:30 - 13:00)

-Conveners: Carlo Barbieri

| time | [id] title | presenter |
|-------|---|--------------------|
| 11:30 | [33] Attention everyone! I have gone completely BANNANE! | BELLEY, Antoine |
| 12:00 | [40] Tensor-factorized Bogoliubov many-body perturbation theory | ZUREK, Lars |
| 12:30 | [34] Frontiers in Statistical Methods for Nuclear Physics | FURNSTAHL, Richard |