

# Biographical information

**Morten Hjorth-Jensen**<sup>1,2</sup>

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## Professional preparation, education and personal data:

- Professor of Physics at Michigan State University, USA and the University of Oslo, Norway
- Norwegian citizen, born in Haugesund, Norway
- Norwegian University of Science and Technology, Trondheim, Norway, Siv.Ing. in Theoretical Physics (Master of Science equivalent), 1988
- University of Oslo, Norway, Ph.D in Theoretical Nuclear Physics, 1993
- ECT\*, Trento, Italy, Postdoctoral Researcher in Theoretical Nuclear Physics, 1994-1996
- Nordita, Copenhagen, Denmark, Postdoctoral Researcher in Theoretical Nuclear Physics, 1996-1998

## Appointments:

1. Associate Professor of Physics, University of Oslo, 1999-2001;
2. Professor of Physics, University of Oslo, 2001-present;
3. Adjunct Professor of Physics, Michigan State University, 2003-2011;
4. Professor of Physics, Michigan State University, 2012-present;

## Brief research overview

I am a theoretical physicist with a strong interest in computational physics, computational science and many-body theory in general, and the nuclear many-body problem and nuclear structure problems in particular. This means that I study various methods for solving either Schrödinger's equation or Dirac's equation for many interacting particles, spanning from algorithmic aspects to the mathematical properties of such methods, including machine learning and quantum computing.

## Editorial boards and committees.

- Board member of the European Center for Theoretical Studies in Nuclear Physics and Related Areas, Trento, Italy, 2017-2021
- Member of the Physics Advisory Committee at the National Superconducting Cyclotron Laboratory, Michigan State University, East Lansing, USA, 2003-2008
- Member of the Canadian research council's evaluation board on subatomic physics 2012-2015.
- Member of the Swedish research council's evaluation board on subatomic physics 2007-2008.
- Editorial Board member of Physical Review C, 2014-2016
- Editorial Board member of European Physical Journal A, 2010-2016
- Editorial Board member of European Physical Journal Special Topics, 2010-present
- Editorial Board member of Springer's Lecture Notes in Physics, 2010-present
- Editorial Board member of Springer's Undergraduate Lecture Notes in Physics, 2014-present
- Editorial Board member of Springer's University Texts in Physics, 2015-present
- Editorial Board member of Springer's Undergraduate Texts in Physics, 2016-present
- Editorial Board member of Computers in Science and Discovery journal, a journal by IOP, UK, 2008-2014
- Steering Committee member of the FRIB theory alliance at Michigan State University 2013-2016

- Initiated and led the Nuclear Talent initiative from 2010 till 2015, member of the Steering committee till end of 2019.
- Member of the Board of Usit at UiO (Center for information technology at the University of Oslo), 2002-2004
- Project leader for High-performance computing courses at UiO, 2000-2003
- Board member of the Bachelor program Mathematics, Information theory and Technology at the University of Oslo, 2002-2008
- Leader of the Bachelor program Physics, Astronomy and Meteorology at the University of Oslo, 2002-2011
- Together with colleagues from the Department of Physics, Department of Mathematics and Department of Informatics at the University of Oslo, we started the Computers in Science Education project in 2004. This project, which we conceived back in 2003, has changed totally changed the way Science is taught.
- Member of the OECD working group on nuclear physics 2006-2008
- January 2009-December 2011, leader of the Nuclear Physics group at the University of Oslo
- Leader the new Master of Science program on Computational Science at the University of Oslo. This is a new and multi-disciplinary program across several disciplines at the College of Natural Science of the University of Oslo.

#### **Referee for International Journals.**

- Referee for Reviews of Modern Physics
- Referee for Physical Review Letters
- Referee for Nature
- Referee for Physical Review **C**
- Referee for Physical Review **D**
- Referee for Nuclear Physics **A**
- Referee for Physics Letters **B**
- Referee for Astrophysical Journal
- Referee for Journal of Chemical Physics
- Referee for Journal of Physics **A**: Mathematical Physics

- Referee for Journal of Physics **G**: Nuclear and Particle Physics
- Referee for European Journal of Physics **A**
- Referee for European Physics Letters
- Referee for Few Body Systems
- Referee for Modern Journal of Physics **E**
- Referee for Physica Scripta
- Referee for Annals of Physics
- Referee for SIAM
- Referee for Computer Physics Communications
- Referee for Computers in Science and Discovery
- Referee for Journal of Mathematics Physics
- Referee for Progress in Theoretical Physics
- Referee for Polish Journal of Physics

**Other Referee Activities.**

- Referee for the Canadian Research Council
- Referee for the Israeli Research Council
- Referee for the South African Research Council
- Referee for the British Research Council, SFTC
- Referee for the German Research Council
- Referee for the American Department of Energy (DOE)
- Referee for the American National Science Foundation (NSF)
- Referee for INFN, Istituto Nazionale di Fisica Nucleare, Italy
- Referee for ESF, European Science Foundation
- Referee for Vetenskapsrådet, the Swedish Research Council
- Referee for the Danish Research Council
- Referee for the Serbian Research Ministry
- Referee for the Russian Research Council

- Referee for the Research Council of Luxembourg
- Opponent at several PhD dissertations.
- Member of several PhD guidance committees at Michigan State University
- Several expert evaluations on promotion applications.
- Member or leader of several job assessment committees in Norway and the USA

**Member of International Advisory committees.**

1. 22nd International Few-Body Conference, member of IAC 2018 and 2024
2. International Nuclear Physics Conference, member of IAC since 2008
3. Nuclear Structure 2010 and 2014, member of IAC
4. Program Advisor Committee for Recent Progress in Many-Body Theories, member since 2007
5. Scientific advisory committee for Nuclear Theory in the Supercomputing Era
6. International Advisory committee of International Conference on Mathematical Modeling in Physical Sciences
7. International Advisory committee for XI Latin American Symposium on Nuclear Physics and Applications
8. International Advisory Board for Conference on Computational Physics
9. International Advisory committee for EURORIB15, EURORIB18, EURORIB24
10. International Advisory committee for SIAM conference on Computational Science and Engineering in Boston, 2013

**Awards:**

1. University of Oslo award for excellence in teaching, 2000 (250kNOK)
2. Fellow of the American Physical Society, 2007
3. Oak Ridge National Laboratory excellence in research award, 2008
4. Outstanding referee award of the American Physical Society, 2008
5. University of Oslo award for excellence in teaching for the **Computing in Science Education** project, 2011 (250kNOK)

6. NOKUT (Norwegian entity of quality assessment in higher education) [award for excellence in teaching](#) for the **Computing in Science Education** project, 2012
7. Elected member of the Norwegian Academy of Sciences and Letters, 2013
8. Elected member of the Royal Norwegian Society of Sciences and Letters, 2015
9. [University of Oslo award for excellence in teaching](#) for developing the Computational Physics group, 2015 (250kNOK)
10. Favorite graduate teacher at the Department of Physics and Astronomy at Michigan State University, 2016
11. **Olav Thon Foundation National prize for excellence in teaching award** (National, all Norwegian higher education institutions, 500kNOK), 2018
12. [Thomas H. Osgood Faculty Teaching award](#) at Michigan State University, 2018
13. University of Oslo merited teacher award 2020
14. College of Natural Science Norman L and Olga K. Fritz Excellence in Teaching Award, Michigan State University, 2021

### Citation metrics and some selected research highlights:

1. Google Scholar.
2. **Realistic effective interactions for nuclear systems**, M Hjorth-Jensen, TTS Kuo, E Osnes, [Physics Reports 261, 125-270 \(1995\)](#).
3. **Phases of dense matter in neutron stars**, H Heiselberg, M Hjorth-Jensen, [Physics Reports 328, 237-327 \(2000\)](#).
4. **Pairing in nuclear systems: from neutron stars to finite nuclei**, DJ Dean, M Hjorth-Jensen, [Reviews of Modern Physics 75, 607 \(2003\)](#).
5. T. Papenbrock, G. Hagen, M. Hjorth-Jensen, and D. J. Dean, *Coupled-cluster computations of atomic nuclei*, [Reports on Progress in Physics, 77:096302 \(2014\)](#).
6. Amber Boehnlein, Markus Diefenthaler, Cristiano Fanelli, Morten Hjorth-Jensen, Tanja Horn, Michelle P. Kuchera, Dean Lee, Witold Nazarewicz, Kostas Orginos, Peter Ostroumov, Long-Gang Pang, Alan Poon, Nobuo Sato, Malachi Schram, Alexander Scheinker, Michael S. Smith, Xin-Nian Wang, Veronique Ziegler, [Machine Learning in Nuclear Physics, Reviews of Modern Physics 94, 031003 \(2022\)](#)

## Research, Publications, books, refereed scientific articles, talks and research grants

### Books:

1. Morten Hjorth-Jensen, M.P. Lombardo and U. van Kolck, *Computational Nuclear Physics-Bridging the scales, from quarks to neutron stars*, Lectures Notes in Physics by Springer, Volume **936** (2017).

### Publications in journals with a referee system:

1. Bryce Fore, Jane Kim, Morten Hjorth-Jensen, Alessandro Lovato, **Investigating the crust of neutron stars with neural-network quantum states**, <https://arxiv.org/abs/2407.21207>
2. Patrick Cook, Danny Jammooa, Morten Hjorth-Jensen, Daniel D. Lee, Dean Lee, **Parametric Matrix Models**, Nature under review and <https://arxiv.org/abs/2401.11694>
3. Niyaz R. Beysengulov, Johannes Pollanen, Øyvind S. Schøyen, Stian D. Bilek, Jonas B. Flaten, Oskar Leinonen, Håkon Emil Kristiansen, Zachary J. Stewart, Jared D. Weidman, Angela K. Wilson, Morten Hjorth-Jensen, Coulomb interaction-driven entanglement of electrons on helium, PRX Quantum, in press and <https://arxiv.org/abs/2310.04927>
4. Julie Butler, Morten Hjorth-Jensen, and Justin G. Lietz, **Accelerating the Convergence of Coupled Cluster Calculations of the Homogeneous Electron Gas Using Bayesian Ridge Regression**, Journal of Chemical Physics under review and <https://arxiv.org/abs/2403.04645>
5. Jane Kim, Gabriel Pescia, Bryce Fore, Jannes Nys, Giuseppe Carleo, Stefano Gandolfi, Morten Hjorth-Jensen, Alessandro Lovato, **Neural-network quantum states for ultra-cold Fermi gases**, Nature Communications Physics **7**, 148 (2024) and <https://www.nature.com/articles/s42005-024-01613-w>
6. Bryce Fore, Jane M. Kim, Giuseppe Carleo, Morten Hjorth-Jensen, Alessandro Lovato, and Maria Piarulli, **Dilute neutron star matter from neural-network quantum states**, Physical Review Research **5**, 033062 (2023)
7. Mauro Rigo, Benjamin Hall, Morten Hjorth-Jensen, Alessandro Lovato, Francesco Pederiva, **Solving the nuclear pairing model with neural network quantum states**, Physical Review E **107**, 025310 (2023)
8. Even M. Nordhagen, Jane M. Kim, Bryce Fore, Alessandro Lovato, Morten Hjorth-Jensen, **Efficient Solutions of Fermionic Systems using Artificial Neural Networks**, Frontiers in Physics **11**, 1061580 (2023)

9. Kaspara Skovli Gåsvær, Pedro G. Lind, Johannes Langguth, Morten Hjorth-Jensen, Michael Kreil, Daniel Thilo Schroeder, **Harmful Conspiracies in Temporal Interaction Networks: Understanding the Dynamics of Digital Wildfires through Phase Transitions**, <https://arxiv.org/abs/2310.05542> and

COMPLEX NETWORKS 2023, The 12th International Conference on Complex Networks and their Applications, 28 - 30 November, 2023, Menton Riviera, France

1. D. Mroczek, M. Hjorth-Jensen, J. Noronha-Hostler, P. Parotto, C. Ratti, R. Vilalta, **Mapping out the thermodynamic stability of a QCD equation of state with a critical point using active learning**, *Physical Review C* **107**, 054911 (2023)
2. Oliver Lerstøl Hebnes, Marianne Etzelmüller Bathen, Øyvind Sigmundson Schøyen, Sebastian G. Winther Larsen, Lasse Vines, Morten Hjorth-Jensen, **Predicting Solid State Material Platforms for Quantum Technologies**, *npj Computational Materials* **8**, 207 (2022)
3. Amber Boehnlein, Markus Diefenthaler, Cristiano Fanelli, Morten Hjorth-Jensen, Tanja Horn, Michelle P. Kuchera, Dean Lee, Witold Nazarewicz, Kostas Orginos, Peter Ostroumov, Long-Gang Pang, Alan Poon, Nobuo Sato, Malachi Schram, Alexander Scheinker, Michael S. Smith, Xin-Nian Wang, Veronique Ziegler, **Machine Learning in Nuclear Physics**, *Reviews of Modern Physics* **94**, 031003 (2022)
4. D. Rhodes, B. A. Brown, J. Henderson, A. Gade, J. Ash, P. C. Bender, R. Elder, B. Elman, M. Grinder, M. Hjorth-Jensen, H. Iwasaki, B. Longfellow, T. Mijatovic, M. Spieker, D. Weisshaar, and C. Y. Wu, **Exploring the role of high-j configurations in collective observables through the Coulomb excitation of  $^{106}\text{Cd}$** , *Physical Review C* **103**, L051301 (2021)
5. Dean Lee, Scott Bogner, B. Alex Brown, Serdar Elhatisari, Evgeny Epelbaum, Heiko Hergert, Morten Hjorth-Jensen, Hermann Krebs, Ning Li, Bing-Nan Lu, Ulf-G. Meissner, Robert B. Wiringa, **Hidden spin-isospin exchange symmetry**, *Physical Review Letters* **127**, 062501 (2021)
6. Aynom T. Teweldebrhan, Thomas Schuler, John Burkhart, and Morten Hjorth-Jensen, *Coupled machine learning and the limits of acceptability approach applied in parameter identification for a distributed hydrological model*, *Hydrology and Earth System Sciences* **24**, (2020), 4641
7. Robert Solli, Daniel Bazin, Michelle P. Kuchera, Ryan R. Strauss, Morten Hjorth-Jensen, *Unsupervised Learning for Identifying Events in Active Target Experiments*, *Nuclear Instruments and Methods in Physics Research Section A* **1010**, 165461, (2020)



8. John M. Aiken, Riccardo De Bin, Morten Hjorth-Jensen, Marcos D. Caballero, Predicting time to graduation at a large enrollment American university, [PLoS ONE 15, e0242334 \(2020\)](#)
9. Calvin W. Johnson, Kristina D. Launey, Naftali Auerbach, Sonia Bacca, Bruce R. Barrett, Carl Brune, Mark A. Caprio, Pierre Descouvemont, W. H. Dickhoff, Charlotte Elster, Patrick J. Fasano, Kevin Fosse, Heiko Hergert, Morten Hjorth-Jensen, Linda Hlophe, Baishan Hu, Rodolfo M. Id Betan, Andrea Idini, Sebastian König, Konstantinos Kravvaris, Dean Lee, Jin Lei, Pieter Maris, Alexis Mercenne, Kosho Minomo, Rodrigo Navarro Perez, Witold Nazarewicz, F. M. Nunes, Marek Ploszajczak, Sofia Quaglioni, Jimmy Rotureau, Gautam Rupak, Andrey M. Shirokov, Ian Thompson, James P. Vary, Alexander Volya, Furong Xu, Remco G.T. Zegers, Vladimir Zelevinsky, Xilin Zhang, *From Bound States to the Continuum*, [Journal of Physics G Phys. 47, 123001 \(2020\)](#)
10. D. A. Torres, R. Chapman, V. Kumar, B. Hadinia, A. Hodsdon, M. Labiche, X. Liang, D. O'Donnell, J. Ollier, R. Orlandi, J. F. Smith, K. -M. Spohr, P. Wady, Z. M. Wang, L. Corradi, E. Fioretto, A. Gadea, G. de Angelis, N. Mărginean, D. R. Napoli, E. Sahin, A. M. Stefanini, J. J. Valiente-Dobón, F. D. Vedova, M. Axiotis, T. Martinez, S. Szilner, D. Bazzacco, S. Beghini, E. Farnea, R. Mărginean, D. Mengoni, G. Montagnoli, F. Recchia, F. Scarlassara, C. A. Ur, S. M. Lenzi, S. Lunardi, T. Kröll, F. Haas, T. Faul, M. Hjorth-Jensen, B. G. Carlsson, S. J. Freeman, A. G. Smith, G. Jones, N. Thompson, G. Pollaro, G. S. Simpson, *Study of medium-spin states of neutron-rich 87, 89, 91Rb isotopes*, [European Physical Journal A 55 \(2019\) p.158](#)
11. Marcos Daniel Caballero, Morten Hjorth-Jensen, Integrating a Computational Perspective in Physics Courses, [arXiv:1802.08871, Nova Publishers, New Trends in Physics Education Research \(2018\)](#)
12. Erich W. Ormand, Alex B. Brown and Morten Hjorth-Jensen, *First-principles calculations for c-coefficients of the isobaric mass multiplet equation in the 1p0f shell*, [Physical Review C Rapids, 96:024323 \(2017\)](#).
13. Morten Hjorth-Jensen, M.P. Lombardo and U. van Kolck, *Motivation and Overarching Aims*, *Lecture Notes in Physics*, Editors M. Hjorth-Jensen, M.P. Lombardo and U. van Kolck, Volume **936** pages 1-4 (2017).
14. Justin Lietz, Sam Novario, Gustav, Jansen, Gaute Hagen, and Morten Hjorth-Jensen, *High-performance computing and infinite nuclear matter*, *Lecture Notes in Physics*, Editors M. Hjorth-Jensen, M.P. Lombardo and U. van Kolck, Volume **936** pages 293-399 (2017).
15. Fei Yuan, Sam Novario, Nathan Parzuchowski, Sarah Reimann, Scott K. Bogner and Morten Hjorth-Jensen., *First principle calculations of quantum dot systems*, [Journal of Chemical Physics, 147:164109 \(2017\)](#).

16. Morten Hjorth-Jensen, *Scattering Experiments Tease Out the Strong Force*, *Physics*, 10:72 (2017).
17. Naofumi Tsunoda, Takaharu Otsuka, Noritaka Shimizu, Morten Hjorth-Jensen, Kazuo Takayanagi, Toshio Suzuki, *Exotic neutron-rich medium-mass nuclei with realistic nuclear forces*, *Physical Review C* Rapids, 95:021304(R) (2017).
18. G. Hagen, M. Hjorth-Jensen, G. R. Jansen, T. Papenbrock, *Emergent properties of nuclei from ab initio coupled-cluster calculations*, *Physica Scripta*, 91:063006 (2016).
19. G. Hagen, A. Ekstrom, C. Forssen , G. R. Jansen, W. Nazarewicz, T. Papenbrock, K. A. Wendt, S. Bacca, N. Barnea, B. Carlsson, C. Drischler, K. Hebeler, M. Hjorth-Jensen, M. Miorelli, G. Orlandini, A. Schwenk, and J. Simonis, *Charge, neutron, and weak size of the atomic nucleus*, *Nature Physics*, 12:186–190 (2016).
20. A. Ekstrom, G. R. Jansen, K. A. Wendt, G. Hagen, T. Papenbrock, B. D. Carlsson, C. Forssen, M. Hjorth-Jensen, P. Navratil, W. Nazarewicz, *Accurate nuclear radii and binding energies from a chiral interaction*, *Physical Review C*, 91, 051301(R) (2015).
21. A. Ekstrom, B. D. Carlsson, K. A. Wendt, C. Forssén, M. Hjorth-Jensen, R. Machleidt, S. M. Wild, *Statistical uncertainties of a chiral interaction at next-to-next-to leading order*, *Journal of Physics G*, 42:034003 (2015).
22. A. B. Balantekin, J. Carlson, D. J. Dean, G. M. Fuller, R. J. Furnstahl, M. Hjorth-Jensen, R. V. F. Janssens, Bao-An Li, W. Nazarewicz, F. M. Nunes, W. E. Ormand, S. Reddy, B. M. Sherrill , *Nuclear Theory and Science of the Facility for Rare Isotope Beams*, *Modern Physics Letters A*, 29:1430010 (2014).
23. Zs. Vajta, M. Stanoiu, D. Sohler, G. R. Jansen, F. Azaiez, Zs. Dombrádi, O. Sorlin, B. A. Brown, M. Belleguic, C. Borcea, C. Bourgeois, Z. Dlouhy, Z. Elekes, Zs. Fülöp, S. Grévy, D. Guillemaud-Mueller, G. Hagen, M. Hjorth-Jensen, F. Ibrahim, A. Kerek, A. Krasznahorkay, M. Lewitowicz, S. M. Lukyanov, S. Mandal, P. Mayet, J. Mrázek, F. Negoita, Yu.-E. Penionzhkevich, Zs. Podolyák, P. Roussel-Chomaz, M. G. Saint-Laurent, H. Savajols, G. Sletten, J. Timár, C. Timis, and A. Yamamoto, *\*Excited states in the neutron-rich nucleus  $^{25}\text{F}$* , *Physical Review C*, 89:054323 (2014).
24. A. Sanetullaev, M.B. Tsang, W.G. Lynch, Jenny Lee, D. Bazin, K.P. Chan, D. Coupland, V. Henzl, D. Henzlova, M. Kilburn, A.M. Rogers, Z.Y. Sun, M. Youngs, R.J. Charity, L.G. Sobotka, M. Famiano, S. Hudan, D. Shapira, W.A. Peters, C. Barbieri, M. Hjorth-Jensen, M. Horoi, T. Otsuka, T. Suzuki, Y. Utsuno *Neutron spectroscopic factors of  $^{55}\text{Ni}$  hole-states from  $(p,d)$  transfer reactions*, *Physics Letters B*, 736:137 (2014).

25. G. Hagen, T. Papenbrock, A. Ekstrom, G. Baardsen, S. Gandolfi, K. A. Wendt, M. Hjorth-Jensen, and C. Horowitz, *Coupled-cluster calculations of nucleonic matter*, *Physical Review C*, 89:014319 (2014).
26. T. Papenbrock, G. Hagen, M. Hjorth-Jensen, and D. J. Dean, *Coupled-cluster computations of atomic nuclei*, *Reports on Progress in Physics*, 77:096302 (2014).
27. N. Tsunoda, K. Takayanagi, M. Hjorth-Jensen and T. Otsuka, *Multi-shell effective interactions*, *Physical Review C*, 89:024313 (2014).
28. G. Baardsen, A. Ekstrom, G. Hagen, and M. Hjorth-Jensen, *Coupled-cluster studies of infinite nuclear matter*, *Physical Review C*, 88:054312 (2013).
29. V. M. Bader, A. Gade, D. Weisshaar, T. Baugher, D. Bazin, J. S. Berryman, B. A. Brown, A. Ekstrom, M. Hjorth-Jensen, S. R. Stroberg, W. B. Walters, K. Wimmer, and R. Winkler, *Quadrupole collectivity in neutron-deficient Sn nuclei:  $^{104}\text{Sn}$  and the role of proton excitations*, *Physical Review C*, 88:051301(R) (2013).
30. A. Ekstrom, G. Baardsen, C. Forss'en, G. Hagen, M. Hjorth-Jensen, G. R. Jansen, R. Machleidt, W. Nazarewicz, T. Papenbrock, J. Sarich, and S. M. Wild, *An optimal chiral interaction at next-to-next-to leading order*, *Physical Review Letters*, 110:192502 (2013).
31. Lepailleur, A. and Sorlin, O. and Caceres, L. and Bastin, B. and Borcea, C. and Borcea, R. and Brown, B. A. and Gaudefroy, L. and Gr'evy, S. and Grinyer, G. F. and Hagen, G. and Hjorth-Jensen, M. and Jansen, G. R. and Llidoo, O. and Negoita, F. and de Oliveira, F. and Porquet, M.-G. and Rotaru, F. and Saint-Laurent, M.-G. and Sohler, D. and Stanoiu, M. and Thomas, J. C., *Spectroscopy of  $^{26}\text{F}$  to Probe Proton-Neutron Forces Close to the Drip Line*, *Physical Review Letters*, 110:082502 (2013).
32. D. D. DiJulio, J. Cederkall, C. Fahlander, A. Ekstrom, M. Hjorth-Jensen, M. Albers, V. Bildstein, A. Blazhev, I. Darby, T. Davinson, H. De Witte, J. Diriken, Ch. Fransen, K. Geibel, R. Gernhäuser, A. Görgen, H. Hess, K. Heyde, J. Iwanicki, R. Lutter, P. Reiter, M. Scheck, M. Seidlitz, S. Siem, J. Taprogge, G. M. Tveten, J. Van de Walle, D. Voulot, N. Warr, F. Wenander, and K. Wimmer *Coulomb excitation of  $^{107}\text{In}$* , *Physical Review C*, 87:017301 (2013).
33. C. Forssen, G. Hagen, M. Hjorth-Jensen, W. Nazarewicz, and J. Rotureau, *Living on the edge of stability, the limits of the nuclear landscape*, *Physica Scripta*, T152:014022 (2013).
34. Liddick, S. N. and Abromeit, B. and Ayres, A. and Bey, A. and Bingham, C. R. and Brown, B. A. and Cartegni, L. and Crawford, H. L. and Darby, I. G. and Grzywacz, R. and Ilyushkin, S. and Hjorth-Jensen, M. and Larson,

- N. and Madurga, M. and Miller, D. and Padgett, S. and Paulauskas, S. V. and Rajabali, M. M. and Rykaczewski, K. and Suchyta, S., \* Low-energy level schemes of  $^{66,68}\text{Fe}$  and inferred proton and neutron excitations across  $Z = 28$  and  $N = 40^*$ , *Physical Review C*, 87:014325, 2013.
35. D. D. DiJulio, J. Cederkall, C. Fahlander, A. Ekstrom, M. Hjorth-Jensen, M. Albers, V. Bildstein, A. Blazhev, I. Darby, T. Davinson, H. De Witte, J. Diriken, Ch. Fransen, K. Geibel, R. Gernhauser, A. Gorgen, H. Hess, J. Iwanicki, R. Lutter, P. Reiter, M. Scheck, M. Seidlitz, S. Siem, J. Taprogge, G.M. Tveten, J. Van de Walle, D. Voulot, N. Warr, F. Wenander, and K. Wimmer, *Excitation strengths in  $^{109}\text{Sn}$ : Single-neutron and collective excitations near  $^{100}\text{Sn}$* , *Physical Review C*, 86:031302(R), 2012.
  36. D. D. DiJulio, J. Cederkall, C. Fahlander, A. Ekstrom, M. Hjorth-Jensen, M. Albers, V. Bildstein, A. Blazhev, I. Darby, T. Davinson, H. De Witte, J. Diriken, Ch. Fransen, K. Geibel, R. Gernhauser, A. Gorgen, H. Hess, J. Iwanicki, R. Lutter, P. Reiter, M. Scheck, M. Seidlitz, S. Siem, J. Taprogge, G.M. Tveten, J. Van de Walle, D. Voulot, N. Warr, F. Wenander, and K. Wimmer, *Coulomb excitation of  $^{107}\text{Sn}$* , *European Journal of Physics A*, 48:105, 2012.
  37. Gaute Hagen, Morten Hjorth-Jensen, Gustav Ragnar Jansen, Ruprecht Machleidt, and Thomas Papenbrock, *Evolution of shell structure in neutron-rich calcium isotopes*, *Physical Review Letters*, 109:032502, 2012.
  38. Gaute Hagen, Morten Hjorth-Jensen, Gustav Ragnar Jansen, Ruprecht Machleidt, and Thomas Papenbrock, *Continuum effects and three-nucleon forces in neutron-rich oxygen isotopes*, *Physical Review Letters*, 108:242501, 2012.
  39. Torres, D. A. and Kumbartzki, G. J. and Sharon, Y. Y. and Zamick, L. and Manning, B. and Benczer-Koller, N. and Speidel, K.-H. and Ahn, T. and Anagnostatou, V. and Elvers, M. and Goddard, P. and Heinz, A. and Ilie, G. and Radeck, D. and Savran, D. and Werner, V. and Gurdal, G. and Taylor, M. J. and Maier-Komor, P. and Hjorth-Jensen, M. and Robinson, S. J. Q. *Measurement of the  $^{96}\text{Ru}$   $g$ -factor and its nuclear structure interpretation*. *Physical Review C*, 85:017305, 2012.
  40. Torres, D. A. and Kumbartzki, G. J. and Sharon, Y. Y. and Zamick, L. and Manning, B. and Benczer-Koller, N. and Gurdal, G. and Speidel, K.-H. and Hjorth-Jensen, M. and Maier-Komor, P. and Robinson, S. J. Q. and Ahn, T. and Anagnostatou, V. and Elvers, M. and Goddard, P. and Heinz, A. and Ilie, G. and Radeck, D. and Savran, D. and Werner, V. *First  $g$ -factor measurements of the  $2^+$  and the  $4^+$  states of radioactive  $^{100}\text{Pd}$* . *Physical Review C*, 84:044327, 2011.
  41. Naofumi Tsunoda, Takaharu Otsuka, Koshiroh Tsukiyama, and Morten Hjorth-Jensen *Renormalization persistency of the tensor force in nuclei*. *Physical Review C*, 84:044322, 2011.

42. O. Jensen, Gaute Hagen, Morten Hjorth-Jensen, Alex Boyd Brown, and Alexandra Gade *Quenching of spectroscopic factors for proton removal in oxygen isotopes*, *Physical Review Letters*, 107:032501, 2011.
43. Magnus Pedersen Lohne, Gaute Hagen, Morten Hjorth-Jensen, Simen Kvaal, and Francesco Pederiva, *Ab initio calculations of Circular quantum dots*. *Physical Review B*, 84:032501, 2011.
44. Elise Bergli and Morten Hjorth-Jensen, \*Summation of Parquet diagrams as an *ab initio* method in nuclear structure calculations\*, *Annals of Physics*, 326:1125, 2011.
45. Gustav Ragnar Jansen, Morten Hjorth-Jensen, Gaute Hagen, and Thomas Papenbrock, *Toward open-shell nuclei with coupled-cluster theory*. *Physical Review C*, 83:054306, 2011.
46. Morten Hjorth-Jensen, *The Carbon Challenge*, *Physics*, 4:38, 2011.
47. O. Jensen, G. Hagen, M. Hjorth-Jensen, and J. S. Vaagen, *Closed-shell properties of  $^{24}\text{O}$  with *ab initio* coupled-cluster theory*, *Physical Review C*, 83:021305, 2011.
48. Angelo Signoracci, B. Alex Brown, and Morten Hjorth-Jensen, *Renormalized interactions with a realistic single-particle basis*, *Physical Review C*, 83:024315, 2011.
49. Boyd Alexander Brown, Angelo Signoracci, and Morten Hjorth-Jensen, *Configuration interactions constrained by energy density functionals*, *Physics Letters B*, 695:507, 2011.
50. G. Hagen, T. Papenbrock, D. J. Dean, and M. Hjorth-Jensen, \*Ab initio coupled-cluster approach to nuclear structure with modern nucleon-nucleon interactions, *Phys. Rev. C*, 82(3):034330, 2010.
51. L. Atanasova, Dimiter Balabanski, S. K. Chamoli, M. Hass, G. S. Simpson, D. Bazzacco, F. Becker, P. Bednarczyk, G. Benzoni, N. Blasi, A. Blazhev, A. Bracco, C. Brandau, L. Caceres, F. Camera, F. C. L. Crespi, P. Detistov, P. Doornenbal, C. Fahlander, E. Farnea, G. Georgiev, J. Gerl, K. A. Gladnishki, M. Gorska, J. Grebosz, R. Hoischen, G. Ilie, M. Ionescu-Bujor, A. Iordachescu, A. Jungclaus, G. Bianco, M. Kmiecik, I. Kojouharov, N. Kurz, S. Lakshmi, R. Lozeva, A. Maj, D. Montanari, G. Neyens, M. Pfuetzner, S. Pietri, Z. Podolyak, W. Prokopowicz, D. Rudolph, G. Rusev, T. Saito, A. Saltarelli, H. Schaffner, R. Schwengner, S. Tashenov, J. J. Valiente-Dobon, N. Vermeulen, J. Walker, E. Werner-Malento, O. Wieland, H. J. Wollersheim, H. Grawe, and Morten Hjorth-Jensen. *g-factor measurements at RISING: The cases of  $^{127}\text{Sn}$  and  $^{128}\text{Sn}$* . *Europhysics letters*, 91:42001, 2010.

52. I. Darby, R. Grzywacz, J. C. Batchelder, C. R. Bingham, L. Cartegni, C. J. Gross, Morten Hjorth-Jensen, D. T. Joss, S. N. Liddick, W. Nazarewicz, S. Padgett, R. D. Page, Thomas Papenbrock, M. M. Rajabali, J. Rotureau, and K. P. Rykaczewski, *Orbital Dependent Nucleonic Pairing in the Lightest Known Isotopes of Tin*. *Physical Review Letters*, 105:162502, 2010.
53. A. Ekstrom, Joakim Cederkall, Claes Fahlander, Morten Hjorth-Jensen, Torgeir Engeland, Peter Butler, P. A. Butler, T. Davinson, J. Eberth, F. Finke, Andreas Gorgen, M. Gorska, A. M. Hurst, O. Ivanov, J. Iwanicki, U. Koster, B. A. Marsh, J. Mierzejewski, P. Reiter, Sunniva Siem, G. Sletten, I. Stefanescu, Gry Merete Tveten, J. Van de Walle, D. Voulot, N. Warr, D. Weisshaar, F. Wenander, and M. Zielinska, *Coulomb excitation of the odd-odd isotopes  $^{106}\text{In}$  and  $^{108}\text{In}$* , *European Physical Journal A*, 44:355, 2010.
54. Gaute Hagen, Thomas Papenbrock, and Morten Hjorth-Jensen, *Ab Initio Computation of the  $^{17}\text{F}$  Proton Halo State and Resonances in  $A=17$  Nuclei*, *Physical Review Letters*, 104:182501, 2010.
55. Morten Hjorth-Jensen, David Jarvis Dean, G. Hagen, and Simen Kvaal, *Many-body interactions and nuclear structure*, *Journal of Physics G: Nuclear and Particle Physics*, 37:064035, 2010.
56. N. Hoteling, C. Chiara, R. Broda, W. B. Walters, R. V. F. Janssens, Morten Hjorth-Jensen, M. B. Carpenter, B. Fornal, A. A. Hecht, W. Krolas, T. Lauritsen, T. Pawlat, D. Seweryniak, X. Wang, A. Wöhr, J. Wrzesinski, and S. Zhu. *Structure of  $^{60,62}\text{Fe}$  and the onset of  $n_{\pi}(9/2)$  occupancy*, *Physical Review C*, 82:044305, 2010.
57. Takahuro Otsuka, Toshio Suzuki, Micho Honma, Yutaka Utsuno, Naofumi Tsunoda, Koshiro Tsukiyama, and Morten Hjorth-Jensen, *Novel Features of Nuclear Forces and Shell Evolution in Exotic Nuclei*, *Physical Review Letters*, 104:012501, 2010.
58. C. Barbieri and Morten Hjorth-Jensen, *Quasiparticle and quasihole states of nuclei around  $^{56}\text{Ni}$* , *Physical Review C*, 79:064313, 2009.
59. A. Ekstrom, J. Cederkall, D. D. DiJulio, C. Fahlander, Morten Hjorth-Jensen, A. Blazhev, B. Bruyneel, P. A. Butler, T. Davinson, J. Eberth, C. Fransen, K. Geibel, H. Hess, O. Ivanov, J. Iwanicki, O. Kester, J. Kownacki, U. Koster, B. A. Marsh, P. reiter, M. Scheck, B. Siebeck, Sunniva Siem, I. Stefanescu, Heidi Kristine Toft, Gry Merete Tveten, J. Van de Walle, D. Voulot, N. Warr, D. Weisshaar, F. Wenander, K. Wrzosek, and M. Zielinska, *Electric quadrupole moments of the  $2^+$  states in  $^{100,102,104}\text{Cd}$* , *Physical Review C*, 80:054302, 2009.
60. G. Hagen, T. Papenbrock, D. J. Dean, Morten Hjorth-Jensen, and B. V. Asokan, *Ab initio computation of neutron-rich oxygen isotopes*, *Physical Review C*, 80:021306, 2009.

61. Micho Honma, Takahuro Otsuka, T. Mizusaki, and Morten Hjorth-Jensen, *New effective interaction for fpg-shell nuclei*. *Physical Review C*, 80:064323, 2009.
62. Koshiroh Tsukiyama, Morten Hjorth-Jensen, and Gaute Hagen, *Gamow shell-model calculations of drip-line oxygen isotopes*. *Physical Review C*, 80:051301(R), 2009.
63. David J. Dean, Gaute Hagen, Morten Hjorth-Jensen, and Thomas Papenbrock, \* Computational aspects of nuclear coupled-cluster theory\*. *Computational Science and Discovery*, 1:015008, 2008.
64. David J. Dean, Gaute Hagen, Morten Hjorth-Jensen, Thomas Papenbrock, and Achim Schwenk, *Comment on Ab initio study of  $^{40}\text{Ca}$  with an importance-truncated no-core shell model*. *Physical Review Letters*, 101:119201, 2008.
65. A. Ekstrom, J. Cederkall, C. Fahlander, Morten Hjorth-Jensen, F. Ames, P. A. Butler, T. Davinson, J. Eberth, F. Fincke, A. Gorgen, M. Gorska, D. Habs, A. M. Hurst, M. Huyse, O. Ivanov, J. Iwanicki, O. Kester, U. Koster, B. A. Marsh, J. Mierzejewski, P. Reiter, H. Scheit, D. Schwalm, Sunniva Siem, G. Sletten, I. Stefanescu, Gry Merete Tveten, J. V. de Walle, P. Van Duppen, D. Voulot, N. Warr, D. Weisshaar, F. Wenander, and M. Zielinska. *Transition strengths in  $^{106}\text{Sn}$  and  $^{108}\text{Sn}$* , *Physical Review Letters*, 101:01250, 2008.
66. Gaute Hagen, Thomas Papenbrock, David J. Dean, and Morten Hjorth-Jensen, *Medium-Mass Nuclei from Chiral Nucleon-Nucleon Interactions*, *Physical Review Letters*, 101:092502, 2008.
67. N. Hoteling, W. B. Walters, R. V. F. Janssens, R. Broda, M. P. Carpenter, B. Fornal, A. A. Hecht, Morten Hjorth-Jensen, W. Krolas, T. Lauritsen, T. Pawlat, D. Seweryniak, J. R. Stone, X. Wang, A. Wohr, J. Wrzesinski, and S. Zhu, *Rotation-aligned coupling in  $^{61}\text{Fe}$* , *Physical Review C*, 77:044314, 2008.
68. J. Cederkall, A. Ekstrom, C. Fahlander, A. M. Hurst, Morten Hjorth-Jensen, F. Ames, A. Banu, P. A. Butler, T. Davinson, U. D. Pramanik, J. Eberth, S. Franchoo, G. Georgiev, M. Gorska, D. Habs, M. Huyse, O. Ivanov, J. Iwanicki, O. Kester, U. Koster, B. A. Marsh, O. Niedermaier, T. Nilsson, P. Reiter, H. Scheit, D. Schwalm, T. Sieber, G. Sletten, I. Stefanescu, J. V. de Walle, P. Van Duppen, N. Warr, D. Weisshaar, and F. Wenander, *Sub-barrier Coulomb excitation of  $^{110}\text{Sn}$  and its implications for the  $^{100}\text{Sn}$  shell closure*, *Physical Review Letters*, 98:172501, 2007.
69. Gaute Hagen, David J. Dean, Morten Hjorth-Jensen, and Thomas Papenbrock, *Complex coupled-cluster approach to an ab-initio description of open quantum systems*, *Physics Letters B*, 656:169, 2007.

70. Gaute Hagen, David J. Dean, Morten Hjorth-Jensen, Thomas Papenbrock, and Achim Schwenk, *Benchmark calculations for  $^3\text{H}$ ,  $^4\text{He}$ ,  $^{16}\text{O}$ , and  $^{40}\text{Ca}$  with ab initio coupled-cluster theory*. *Physical Review C*, 76:044305, 2007.
71. Maxim Kartamych, Torgeir Engeland, Morten Hjorth-Jensen, and Eivind Osnes, *Effective interactions and shell model studies of heavy tin isotopes*, *Physical Review C*, 76:024313, 2007.
72. Simen Kvaal, Morten Hjorth-Jensen, and Halvor Moll Nilsen, *Effective interactions, large-scale diagonalization, and one-dimensional quantum dots*, *Physical Review B*, 76:085421, 2007.
73. C. Vaman, C. Andreoiu, D. Bazin, A. Becerril, B. A. Brown, C. M. Campbell, A. Chester, J. M. Cook, D. C. Dinca, A. Gade, D. Galaviz, T. Glasmacher, Morten Hjorth-Jensen, M. Horoi, D. Miller, V. Moeller, W. F. Mueller, A. Schiller, K. Starosta, A. Stolz, J. R. Terry, A. Volya, V. Zelevinsky, and H. Zwahlen. *Z=50 shell gap near  $^{100}\text{Sn}$  from intermediate-energy coulomb excitations in even-mass  $^{106-112}\text{Sn}$  isotopes*, *Physical Review Letters*, 99:162501, 2007.
74. Jeffrey Groun, Piotr Piecuch, Morten Hjorth-Jensen, Marta Wloch, and David Jarvis Dean, *Coupled-cluster calculations for valence systems around  $^{16}\text{O}$* , *Physical Review C*, 74:024310, 2006.
75. Gaute Hagen, Morten Hjorth-Jensen, and Michel Nicolas, *Gamow shell model and realistic nucleon-nucleon interactions*, *Physical Review C*, 73:064307, 2006.
76. Nathan Hoteling, W. B. Walters, R. V. F. Janssens, R. Broda, M. F. Carpenter, B. Fornal, A. A. Hecht, Morten Hjorth-Jensen, W. Krolas, T. Lauritzen, T. Pawlat, D. Seweryniak, X. Wang, A. Wotr, J. Wrzesinski, and S. Zhu. *Yrast structure of  $^{64}\text{Fe}$* . *Physical Review C*, 74:064313, 2006.
77. J. Leske, K. H. Speidel, S. Schielke, J. Gerber, P. Maier-Komor, Torgeir Engeland, and Morten Hjorth-Jensen, *Experimental g-factor and  $B(E2)$  value of the  $4+$  state in Coulomb-excited  $^{66}\text{Zn}$  compared to shell-model predictions*. *Physical Review C*, 73:064305, 2006.
78. A. Banu, J. Gerl, C. Fahlander, M. Gorska, H. Grawe, H. J. Wollersheim, E. Caurier, Torgeir Engeland, A. Gniady, Morten Hjorth-Jensen, F. Nowacki, T. Beck, F. Becker, P. Bednarczyk, M. A. Bentley, A. Burger, F. Cristancho, G. de Angelis, Z. Dombradi, P. Doornenbal, H. Geissel, J. Grebosz, G. Hammond, M. Hellstrom, J. Jolie, I. Kojouharov, N. Kurz, R. Lozeva, S. Mandal, N. Marginean, S. Muralithar, J. Nyberg, J. Pochodzalla, W. Prokopowicz, P. Reiter, D. Rudolph, C. Rusu, N. Saito, H. Schaffner, D. Sohler, H. Weick, C. Wheldon, and M. Winkler,  *$^{108}\text{Sn}$  studied with intermediate-energy Coulomb excitation*, *Physical Review C*, 72:061305, 2005.



79. Boyd Alexander Brown, Nick Stone, Irena Stone, Ian Towner, and Morten Hjorth-Jensen, *Magnetic moments of the  $2+$  states around  $^{132}\text{Sn}$* , *Physical Review C*, 71:044317, 2005.
80. Paul Ellis, Torgeir Engeland, Morten Hjorth-Jensen, Maxim Kartamyshev, and Eivind Osnes, *Model calculation of effective three-body forces*, *Physical Review C*, 71:034301, 2005.
81. Gaute Hagen, Morten Hjorth-Jensen, and Jan S. Vaagen, *Effective interaction techniques for the Gamow shell model*, *Physical Review C*, 71:044314, 2005.
82. J. K. Leske, Karl-heinz Speidel, S. Schielke, J. Gerber, P. Maier-komor, Morten Hjorth-Jensen, and Torgeir Engeland, *Physical Review C*, 72:044301, 2005.
83. Jon Kristian Nilsen, Jordi Mur-Petit, Muntsa Guilleumas, Morten Hjorth-Jensen, and Artur Polls, *Vortices in atomic Bose-Einstein condensates in the large-gas-parameter region*, *Physical Review A*, 71:053610, 2005.
84. D. Sohler, M. Palacz, Z. Dombradi, Morten Hjorth-Jensen, C. Fahlander, L. O. Norlin, J. Nyberg, T. Back, K. Lagergren, D. Rudolph, A. Algora, C. Andreoiu, G. de Angelis, A. Atac, D. Bazzacco, J. Cederkall, B. Cederwall, B. Fant, E. Farnea, A. Gadea, M. Gorska, H. Grawe, N. Hashimoto-Saitoh, A. Johnson, A. Kerek, W. Klamra, J. Kownacki, S. M. Lenzi, A. Likar, M. Lipoglavsek, M. Moszynski, D. R. Napoli, C. Rossi-Alvarez, H. A. Roth, T. Saitoh, D. Seweryniak, O. Skeppstedt, J. Timar, M. Weisflog, and M. Wolinska, *Maximally aligned states in the proton drip line nucleus  $^{106}\text{Sb}$* , *Nuclear Physics A*, 753:251, 2005.
85. Marta Wloch, David J. Dean, Jeffrey Groun, Morten Hjorth-Jensen, Karol Kowalski, Thomas Papenbrock, and Piotr Piecuch, *Ab-initio coupled-cluster study of  $^{16}\text{O}$* , *Physical Review Letters*, 94:212501, 2005.
86. David J. Dean, Torgeir Engeland, Morten Hjorth-Jensen, Maxim Kartamyshev, and Eivind Osnes, *Effective interactions and the nuclear shell-model*, *Progress in Particle and Nuclear Physics*, 53:419, 2004.
87. Haavar Gausemel, Birger Fogelberg, Torgeir Engeland, Morten Hjorth-Jensen, Per Hoff, Hendryk Mach, K. A. Mezilev, and Jon Petter Omtvedt, *Decay of  $^{127}\text{In}$  and  $^{129}\text{In}$* , *Physical Review C*, 69:054307, 2004.
88. Gaute Hagen, Jan S. Vaagen, and Morten Hjorth-Jensen, *The contour deformation method in momentum space, applied to subatomic physics*, *Journal of Physics A: Mathematical and General*, 37:8991, 2004.
89. Karol Kowalski, David J. Dean, Morten Hjorth-Jensen, Thomas Papenbrock, and Piotr Piecuch, *Coupled cluster calculations of ground and excited states of nuclei*, *Physical Review Letters*, 92:132501, 2004.

90. David J. Dean and Morten Hjorth-Jensen, *Pairing in nuclear systems: from neutron stars to finite nuclei*, *Reviews of Modern Physics*, 75:607, 2003.
91. I. Dillmann, K. L. Kratz, A. Wohr, O. Arndt, B. A. Brown, Per Hoff, Morten Hjorth-Jensen, U. Koster, A. Ostrowski, B. Pfeiffer, D. Seweryniak, J. Shergur, and W. B. Walters, *N=82 shell-quenching of the classical r-process waiting-point 130Cd*, *Physical Review Letters*, 91:162503, 2003.
92. Magne Guttormsen, Rositsa Chankova, Morten Hjorth-Jensen, John Bernhard Rekstad, Sunniva Siem, Andreas Schiller, and David J. Dean, *Free energy and criticality in the nucleon pair breaking process*, *Physical Review C*, 68:034311, 2003.
93. A. Schiller, Emel Algin, Lee Bernstein, P. E. Garrett, Magne Guttormsen, Morten Hjorth-Jensen, C. W. Johnson, Gary Mitchell, John Bernhard Rekstad, Sunniva Siem, Alexander Voinov, and William Younes, *Level densities in 56,57Fe and 96,97Mo*, *Physical Review C*, 68:054326, 2003.
94. N. Fotiadis, J. A. Cizewski, J. A. Becker, A. Bernstein, D. P. McNabb, William Younes, R. M. Clark, P. Fallon, I. Y. Lee, A. O. Macchiavelli, Anne Holt, and Morten Hjorth-Jensen, *High-spin excitations in 92,93,94,95Zr*, *Physical Review C*, 65:044303, 2002.
95. M. Lipoglavsek, C. Baktash, Jan Blomqvist, David J. Dean, Torgeir Engeland, C. Fahlander, Morten Hjorth-Jensen, Robert V. F. Janssens, A. Likar, Eivind Osnes, and S. D. Paul, *Break-up of the Doubly-magic 100Sn core*, *Physical Review C*, 66:011302, 2002.
96. M. Lipoglavsek, C. Baktash, M. P. Carpenter, David J. Dean, Torgeir Engeland, C. Fahlander, Morten Hjorth-Jensen, and Eivind Osnes, *\*Excited states of the proton emitter 105Sb*, *Physical Review C*, 65:051037, 2002.
97. M. Lipoglavsek, C. Baktash, M. P. Carpenter, David J. Dean, Torgeir Engeland, Morten Hjorth-Jensen, and Eivind Osnes, *Core excitations in 102In*, *Physical Review C*, 65:021302(R), 2002.
98. J. J. Ressler, W. B. Walters, C. N. Davids, David J. Dean, Andreas Heinz, Morten Hjorth-Jensen, D. Seweryniak, and J. Shergur, *First observation of 109Te  $\beta^+$  and electron capture decay of 109Sb*, *Physical Review C*, 66:024308, 2002.
99. Andreas Schiller, Magne Guttormsen, Morten Hjorth-Jensen, John Bernhard Rekstad, and Sunniva Siem, *Model for pairing phase transition in atomic nuclei*, *Physical Review C*, page 024315, 2002.
100. J. Shergur, B. A. Brown, V. N. Fedosseev, U. K?ster, K. L. Kratz, D. Seweryniak, W. B. Walters, A. Wohr, D. Fedorov, M. Hannawald, Morten Hjorth-Jensen, V. Mishin, B. Pfeiffer, J. J. Ressler, H. O. U. Fynbo, and

Per Hoff, *Beta decay studies of  $^{135-137}\text{Sn}$  using selective reonace laser ionization techniques*, *Physical Review C*, 65:034313, 2002.

101. Magne Guttormsen, Morten Hjorth-Jensen, Elin Melby, John Bernhard Rekstad, Andreas Schiller, and Sunniva Siem, *Heat capacity and pairing transition in nuclei*, *Physical Review C*, 64:034319, 2001.
102. Andreas Schiller, Amund Bjerve, Magne Guttormsen, Morten Hjorth-Jensen, Finn Ingebretsen, Elin Melby, John Bernhard Rekstad, Sunniva Siem, and Stein Westad Odeggaard, *The critical temperature for quenching of pair correlations*, *Physical Review C*, 63:021306, 2001.
103. Teemu Siiskonen, Morten Hjorth-Jensen, and Jouni Suhonen, *Renormalization of the weak hadronic current in the nuclear medium*, *Physical Review C*, 63:024315, 2001.
104. Torgeir Engeland, Morten Hjorth-Jensen, and Eivind Osnes, *Shell model studies of the proton drip line nucleus  $^{106}\text{Sb}$* , *Physical Review C*, 61:00010(R), 2000.
105. Magne Guttormsen, Amund Bjerve, Morten Hjorth-Jensen, Elin Melby, John Bernhard Rekstad, Andreas Schiller, Sunniva Siem, and Alexandar Belic, *Entropy in hot  $^{161,162}\text{Dy}$  and  $^{171,172}\text{Yb}$  nuclei*, *Physical Review C*, C62:024306, 2000.
106. Magne Guttormsen, Morten Hjorth-Jensen, Elin Melby, John Bernhard Rekstad, Andreas Schiller, and Sunniva Siem, *Energy shifted level density in the rare earth region*, *Physical Review C*, 61:067302, 2000.
107. Magne Guttormsen, Morten Hjorth-Jensen, Elin Melby, John Bernhard Rekstad, Andreas Schiller, and Sunniva Siem, *Entropy of thermally excited particles in nuclei*, *Physical Review C*, 63:024315, 2000.
108. Henning Heiselberg and Morten Hjorth-Jensen, *Phases of dense matter in neutron stars*, *Physics Reports*, 328:237, 2000.
109. Anne Holt, Torgeir Engeland, Morten Hjorth-Jensen, and Eivind Osnes, *Applications of realistic effective interactions to the structure of Zr isotopes*, *Physical Review C*, 61:024315, 2000.
110. M. Tomaselli, M. Hjorth-Jensen, S. Fritzsche, P. Egelhof, S. R. Neumaier, M. Mutterer, T. Kuhl, A. Dax, and H. Wang, *Matter and charge distributions of  $^6\text{He}$  and  $^5,6,7,9\text{Li}$  within the dynamic-correlation model*, *Physical Review C*, 62:067305, 2000.
111. Isaac Vidanya, Artur Polls, Angels Ramos, Lars Engvik, and Morten Hjorth-Jensen, *Properties of beta-stable neutron star matter with hyperons*, *Physical Review C*, 62:024315, 2000.

112. Isaac Vidanya, Artur Polls, Angels Ramos, Morten Hjorth-Jensen, and V. G. J. Stoks, *Strange nuclear matter within the Brueckner-Hartree-Fock theory*, *Physical Review C*, 61:024315, 2000.
113. David J. Dean, M. T. Ressel, Morten Hjorth-Jensen, S. E. Koonin, K. Langanke, and A. P. Zuker, *Shell model Monte Carlo studies of neutron-rich nuclei in the  $1s0d$ - $1p0f$  shells*, *Physical Review C*, 59:2474, 1999.
114. Henning Heiselberg and Morten Hjorth-Jensen, *Phase transitions in neutron stars and maximum masses*, *Astrophysical Journal Letters*, 525:L45, 1999.
115. S. M. Vincent, P. H. Regan, S. Mohammadi, D. Blumenthal, M. Carpenter, C. N. Davids, W. Gelletly, S. S. Ghugre, D. J. Henderson, R. V. F. Janssens, M. Hjorth-Jensen, B. Kharraja, C. J. Lister, C. J. Pearson, D. Seweryniak, J. Schwartz, J. Simpson, and D. D. Warner, *Near yrast study of the fp shell nuclei  $58\text{Ni}$ ,  $61\text{Cu}$  and  $61\text{Zn}$* , *Physical Review C*, 60:064308, 1999.
116. Elin Melby, Lisbeth Bergholt, Magne Guttormsen, Morten Hjorth-Jensen, Finn Ingebretsen, Svein Messelt, John Bernhard Rekstad, Andreas Schiller, Sunniva Siem, and Stein Westad Odegaard, *Observation of thermodynamical properties in the  $162\text{Dy}$ ,  $166\text{Er}$ ,  $172\text{Yb}$  nuclei*, *Physical Review Letters*, 83:3150, 1999.
117. Teemu Siiskonen, Jouni Suhonen, and Morten Hjorth-Jensen, *Shell-model effective operators for muon capture in  $20\text{Ne}$* , *Journal of Physics G: Nuclear and Particle Physics*, 25:L55, 1999.
118. Teemu Siiskonen, Jouni Suhonen, and Morten Hjorth-Jensen, *Towards the solution of the  $C_P/C_A$  anomaly in shell-model calculations of muon capture*, *Physical Review C*, 59:R1839, 1999.
119. Marcello Baldo, Oystein Elgaroy, Lars Engvik, Morten Hjorth-Jensen, and Hans-Josef Schulze, *Modern nucleon-nucleon potentials and  $^3P_2$ - $^3F_2$  pairing in neutron matter*, *Physical Review C*, 58:1921, 1998.
120. Oystein Elgaroy, Lars Engvik, Morten Hjorth-Jensen, and Eivind Osnes, *Minimal relativity and  $^3S_1$ - $^3D_1$  pairing in symmetric nuclear matter*, *Physical Review C*, 57:1069, 1998.
121. Oystein Elgaroy and Morten Hjorth-Jensen, *Nucleon-nucleon phase shifts and pairing in infinite matter*, *Physical Review C*, 57:1174, 1998.
122. R. Grzywacz, R. Beraud, C. Borcea, A. Ensalle, M. Glogowski, H. Grawe, D. Guillemaud-Mueller, Morten Hjorth-Jensen, M. Houry, M. Lewitowicz, A. C. Mueller, A. Nowak, and A. Plochocki, *New island of mu-isomers in neutron-rich nuclei around the  $Z = 28$  and  $N = 40$  shell closures*, *Physical Review Letters*, 81:766, 1998.

123. Henning Heiselberg and Morten Hjorth-Jensen, *Phase transitions in rotating neutron stars*, *Physical Review Letters*, 80:5485, 1998.
124. Anne Holt, Torgeir Engeland, Morten Hjorth-Jensen, and Eivind Osnes, *Shell-model calculations of heavy Sn isotopes*, *Nuclear Physics A*, 634:41, 1998.
125. Artur Polls, Herbert Muther, Ruprecht Machleidt, and Morten Hjorth-Jensen, *Phaseshift equivalent NN potentials and the deuteron*, *Physics Letters B*, 432:1, 1998.
126. Jouni Suhonen, Jussi Toivanen, Torgeir Engeland, Morten Hjorth-Jensen, Anne Holt, and Eivind Osnes, *Study of odd-mass  $N = 82$  isotones: comparison of the microscopic quasiparticle-phonon model and the nuclear shell model*, *Nuclear Physics A*, 628:41, 1998.
127. Isaac Vidanya, Artur Polls, Angels Ramos, and Morten Hjorth-Jensen, *Hyperon properties in finite nuclei using realistic  $YN$  interactions*, *Nuclear Physics A*, 644:201, 1998.
128. G. N. White, N. J. Stone, J. Rikowska, Y. Koh, J. Copell, T. J. Giles, I. S. Towner, B. A. Brown, S. Ohya, Birger Fogelberg, L. Jacobsson, P. Rakhila, and Morten Hjorth-Jensen, *Ground state magnetic dipole moment of  $^{135}\text{I}$* , *Nuclear Physics A*, 644:277, 1998.
129. Fabio V. de Blasio, Morten Hjorth-Jensen, Oystein Elgaroy, Lars Engvik, Gianluca Lazzari, Marcello Baldo, and Hans-Josef Schulze, *Coherence lengths of neutron superfluids*, *Physical Review C*, 56:2332, 1997.
130. Lars Engvik, Morten Hjorth-Jensen, Ruprecht Machleidt, Herbert Muther, and Artur Polls, *Modern nucleon-nucleon potentials and symmetry energy in infinite matter*, *Nuclear Physics A*, 627:85, 1997.
131. Lars Engvik, Morten Hjorth-Jensen, Eivind Osnes, and T. Kuo, *Ring-diagram calculations of nuclear matter with different model spaces*, *Nuclear Physics A*, 622:553, 1997.
132. Anne Holt, Torgeir Engeland, Morten Hjorth-Jensen, Eivind Osnes, and Jouni Suhonen, *The structure of the  $N = 82$  isotones with realistic effective interactions*, *Nuclear Physics A*, 618:107, 1997.
133. N. Sandulescu, Roberto Liotta, Jan Blomqvist, Torgeir Engeland, Morten Hjorth-Jensen, Anne Holt, and Eivind Osnes, *Generalized seniority scheme in light tin isotopes*, *Physical Review C*, 55:2708, 1997.
134. Lars Engvik, Morten Hjorth-Jensen, Eivind Osnes, G. Bao, and Erlend Ostgaard, *Asymmetric Nuclear Matter and Neutron Star Properties*, *Astrophysical Journal*, 469:794, 1996.

135. Alessandro Drago, Umberto Tambini, and Morten Hjorth-Jensen, *Massive quarks in neutron stars*, *Physics Letters B*, 380:13, 1996.
136. Oystein Elgaroy, Lars Engvik, Morten Hjorth-Jensen, and Eivind Osnes, *Model-space approach to  $^1S_0$  neutron and proton pairing in neutron star matter with the Bonn meson-exchange potentials*, *Nuclear Physics A*, 604:466, 1996.
137. Oystein Elgaroy, Lars Engvik, Morten Hjorth-Jensen, and Eivind Osnes, *Superfluidity in beta-stable neutron star matter*, *Physical Review Letters*, 77:1428, 1996.
138. Oystein Elgaroy, Lars Engvik, Morten Hjorth-Jensen, and Eivind Osnes, *Triplet pairing of neutrons in beta-stable neutron star matter*. *Nuclear Physics A*, 607:425, 1996.
139. Oystein Elgaroy, Lars Engvik, Eivind Osnes, Fabio V. de Blasio, Gianluca Lazzari, and Morten Hjorth-Jensen, *Emissivities of neutrinos in neutron stars*, *Physical Review Letters*, 76:1994, 1996.
140. Oystein Elgaroy, Lars Engvik, Eivind Osnes, Fabio V. de Blasio, Gianluca Lazzari, and Morten Hjorth-Jensen, *Superfluidity and neutron star crust matter*, *Physical Review D. Particles and fields*, 54:1848, 1996.
141. Morten Hjorth-Jensen, Herbert Muther, Artur Polls, and Angels Ramos, *Self-energy of Lambda in finite nuclei*, *Nuclear Physics A*, 605:458, 1996.
142. Morten Hjorth-Jensen, Eivind Osnes, Herbert Muther, and Artur Polls, *Comparison of the effective interaction to various orders in different mass regions*, *Journal of Physics G: Nuclear and Particle Physics*, 22:321, 1996.
143. Morten Hjorth-Jensen, T. Kuo, and Eivind Osnes, *Realistic effective interactions for nuclear systems*, *Physics Reports*, 261:125, 1995.
144. G. Bao, Lars Engvik, Morten Hjorth-Jensen, Eivind Osnes, and Erlend Ostgaard, *New equations of state for neutron stars*, *Nuclear Physics A*, 575:707, 1994.
145. P. J. Ellis, Torgeir Engeland, Morten Hjorth-Jensen, Anne Holt, and Eivind Osnes, *Convergence properties of the effective interaction*, *Nuclear Physics A*, 573:216, 1994.
146. Lars Engvik, Morten Hjorth-Jensen, Eivind Osnes, G. Bao, and Erlend Ostgaard, *Asymmetric nuclear matter and neutron star properties*, *Physical Review Letters*, 73:2650, 1994.
147. Morten Hjorth-Jensen, Herbert Muther, and Artur Polls, *Width of the  $\Delta$  resonance in nuclei*, *Physical Review C*, 50:501, 1994.

148. Torgeir Engeland, Morten Hjorth-Jensen, Anne Holt, and Eivind Osnes, *The structure of the neutron deficient Sn isotopes*, *Physical Review C*, 48:R535, 1993.
149. Morten Hjorth-Jensen, Marcello Borromeo, Herbert Muther, and Artur Polls, *Isobar contributions to the imaginary part of the optical-model potential for finite nuclei*, *Nuclear Physics A*, 551:580, 1993.
150. Morten Hjorth-Jensen, Mariana Kirchbach, Dan Olof Riska, and Kazuo Tsushima, *Nuclear renormalization of the isoscalar axial coupling constants*, *Nuclear Physics A*, 563:525, 1993.
151. Morten Hjorth-Jensen, Torgeir Engeland, Anne Holt, and Eivind Osnes, *Effective interactions for valence-hole nuclei with modern meson-exchange potential models*, *Nuclear Physics A*, 541:105, 1992.
152. Morten Hjorth-Jensen, Eivind Osnes, and T. Kuo, *Effective interactions for valence-hole nuclei with modern meson-exchange potential models*, *Nuclear Physics A*, 540:145, 1992.
153. Morten Hjorth-Jensen, Eivind Osnes, and Herbert Muther, *Folded-Diagram effective interaction with the Bonn meson-exchange potential model*, *Annals of Physics*, 213:102, 1992.
154. Morten Hjorth-Jensen and Kjell Aashamar, *Oscillator strengths and lifetimes for low-lying terms in the Al isoelectronic sequence*. *Physica Scripta*, 42:309, 1990.
155. Morten Hjorth-Jensen and Eivind Osnes, *Number-conserving sets and effective interactions through third order for mass-18 with the Bonn potential*, *Physica Scripta*, 41:207, 1990.
156. Morten Hjorth-Jensen, Eivind Osnes, Herbert Muther, and K. W. Schmid, *Choice of single-particle potential and the convergence of the effective interaction*, *Physics Letters B*, 248:243, 1990.
157. Morten Hjorth-Jensen and Eivind Osnes, *Effective interactions through third order for mass-18 nuclei with the Paris potential*, *Physics Letters B*, 228:281, 1989.

**Contributions to Conference and Workshop Proceedings (refereed and non-refereed).**

1. Douglas Beck, Joseph Carlson, Zohreh Davoudi, Joseph Formaggio, Sofia Quaglioni, Martin Savage, Joao Barata, Tanmoy Bhattacharya, Michael Bishof, Ian Cloet, Andrea Delgado, Michael DeMarco, Caleb Fink, Adrien Florio, Marianne Francois, Dorota Grabowska, Shannon Hoogerheide, Mengyao Huang, Kazuki Ikeda, Marc Illa, Kyungseon Joo, Dmitri Kharzeev,

Karol Kowalski, Wai Kin Lai, Kyle Leach, Ben Loer, Ian Low, Joshua Martin, David Moore, Thomas Mehen, Niklas Mueller, James Mulligan, Pieter Mumm, Francesco Pederiva, Rob Pisarski, Mateusz Ploskon, Sanjay Reddy, Gautam Rupak, Hersh Singh, Maninder Singh, Ionel Stetcu, Jesse Stryker, Paul Szypryt, Semeon Valgushev, Brent VanDevender, Samuel Watkins, Christopher Wilson, Xiaojun Yao, Andrei Afanasev, Akif Baha Balantekin, Alessandro Baroni, Raymond Bunker, Bipasha Chakraborty, Ivan Chernyshev, Vincenzo Cirigliano, Benjamin Clark, Shashi Kumar Dhiman, Weijie Du, Dipankar Dutta, Robert Edwards, Abraham Flores, Alfredo Galindo-Uribarri, Ronald Fernando Garcia Ruiz, Vesselin Gueorguiev, Fanqing Guo, Erin Hansen, Hector Hernandez, Koichi Hattori, Philipp Hauke, Morten Hjorth-Jensen, Keith Jankowski, Calvin Johnson, Denis Lacroix, Dean Lee, Huey-Wen Lin, Xiaohui Liu, Felipe J. Llanes-Estrada, John Looney, Misha Lukin, Alexis Mercenne, Jeff Miller, Emil Mottola, Berndt Mueller, Benjamin Nachman, John Negele, John Orrell, Amol Patwardhan, Daniel Phillips, Stephen Poole, Irene Qualters, Mike Rumore, Thomas Schaefer, Jeremy Scott, Rajeev Singh, James Vary, Juan-Jose Galvez-Viruet, Kyle Wendt, Hongxi Xing, Liang Yang, Glenn Young, Fanyi Zhao, Quantum Information Science and Technology for Nuclear Physics. Input into U.S. Long-Range Planning, 2023

2. Osnes, E, Engeland, T, and Hjorth-Jensen, M, *Large-scale shell-model study of Sn Isotopes*, European Journal of Physics Web of Conferences **95**,01010 (2015)
3. Malthe-Sørenssen, Anders; Hjorth-Jensen, Morten; Langtangen, Hans Petter; Mørken, Knut Martin. *Integrasjon av beregninger i fysikkundervisningen*, UNIPED, 38:303, 2015.
4. Engeland, Torgeir; Hjorth-Jensen, Morten; Kartamyshev, Maxim; Osnes, Eivind. The Kuo–Brown effective interaction: From 18O to the Sn isotopes. Nuclear Physics A, 928:, 2014
5. Takayanagi, K, Tsunoda, N, Hjorth-Jensen, M, Otsuka, T, Effective Hamiltonian in non-degenerate model space. Journal of Physics, Conference Series, 445:012003, 2013, DOI: 10.1088/1742-6596/445/1/012003.
6. Hagen G., Papenbrock T., Hjorth-Jensen M., Jansen G., Machleidt R., Living at the edge of stability: the role of continuum and three-nucleon forces. Edited by: Hamilton, JH; Ramayya, AV. FISSION AND PROPERTIES OF NEUTRON-RICH NUCLEI, ICFN5, Pages: 400-400, Published: 2013. Conference: 5th International Conference on Fission and Properties of Neutron-Rich Nuclei. Date: NOV 04-10, 2012, (World Scientific, Singapore, 2013)
7. DiJulio D.D. et al, Shell model based Coulomb excitation gamma-ray intensity calculations in Sn-107, PHYSICA SCRIPTA, Volume: T150,



Article Number: 014012, DOI: 10.1088/0031-8949/2012/T150/014012,  
Published: OCT 2012

8. DiJulio D.D. et al, Sub-barrier Coulomb excitation of Sn-107. Edited by:Freeman, S; Andreyev, A; Bruce, A; Deacon, A; Jenkins, D; Joss, D; MacGregor, D; Regan, P; Simpson, J; Tungate, G; Wadsworth, R; Watts, D, RUTHERFORD CENTENNIAL CONFERENCE ON NUCLEAR PHYSICS, 2011, Journal of Physics Conference Series, Volume: 381, Article Number: 012073, DOI: 10.1088/1742-6596/381/1/012073, Published: 2012
9. Brown B.A., Signoracci A., and Hjorth-Jensen, M., Configuration interactions constrained by energy density functionals. Edited by:Covello, A; Gargano, A, 10TH INTERNATIONAL SPRING SEMINAR ON NUCLEAR PHYSICS: NEW QUESTS IN NUCLEAR STRUCTURE, Journal of Physics Conference Series, Volume: 267, Article Number: 012028, DOI: 10.1088/1742-6596/267/1/012028, Published: 2011
10. Tsunoda, Naofumi; Otsuka, Takahuro; Tsukiyama, Koshiroh; Hjorth-Jensen, Morten. Tensor force in effective interaction of nuclear force. Journal of Physics, Conference Series 2011 ;Volume 267.
11. Barbieri, Carlo; Hjorth-Jensen, Morten; Giusti, C; Pacati, FD. ONE- AND TWO-NUCLEON STRUCTURE FROM GREEN'S FUNCTION THEORY. Modern Physics Letters A 2010 ;Volume 25.(21-23) p. 1927-1930
12. Ekstrom, A; Cederkall, Joakim; Fahlander, Claes; Hjorth-Jensen, Morten; Engeland, Torgeir; Butler, PA; Davinson, T; Eberth, J; Finke, F; G6rgen, Andreas; Gorska, M; Hurst, AM; Ivanov, O; Iwanicki, J; Koster, U; Marsh, BA; Mierzejewski, J; Reiter, P; Siem, Sunniva; Sletten, G; Stefanescu, I; Tveten, Gry Merete; Van de Walle, J; Voulot, D; Warr, N; Weisshaar, D; Wenander, F; Zielinska, M; Blazhev, A. Coulomb excitation of the odd-odd isotopes 106, 108In. European Physical Journal A 2010 ;Volume 44. p. 355-361
13. Honma, Micho; Otsuka, Takahuro; Mizusaki, T.; Hjorth-Jensen, Morten. Recent Progress in Shell-Model Calculations for pfg-shell Nuclei. AIP Conference Proceedings 2010 ;Volume 1235. p. 384-390
14. Otsuka, Takaharu; Tsunoda, Naofumi; Tsukiyama, Koshiroh; Suzuki, Toshio; Honma, Michio; Utsuno, Yutaka; Hjorth-Jensen, Morten; Holt, Jason; Schwenk, Achim. Hadronic Interaction and Exotic Nuclei. AIP Conference Proceedings 2009 ;Volume 1165. p. 47-52
15. Algin, E; Schiller, A; Voinov, A; Agvaanluvsan, U; Belgya, T; Bernstein, LA; Brune, CR; Chankova, Rosita; Garrett, PE; Grimes, SM; Guttormsen, Magne Sveen; Hjorth-Jensen, Morten; Hornish, MJ; Johnson, CW; Massey, T; Mitchell, GE; Rekstad, John Bernhard; Siem, Sunniva; Younes, W.

- Bulk properties of iron isotopes. *Physics of Atomic Nuclei* 2007 ;Volume 70. p. 1634-1639
16. Hjorth-Jensen, Morten. *Computational Quantum Mechanics. META* 2007 ;Volume 2. p. 10-15
  17. Hjorth-Jensen, Morten. High-performance computing and basic education in computational Science. *META* 2007 (1) p. 18-19
  18. Gorska, M.; Grawe, H.; Banu, A.; Burger, A.; Doornenbal, P.; Gerl, J.; Hjorth-Jensen, Morten; Hübel, H.; Nowacki, F.; Otsuka, Takahuro; reiter, P. Nuclear structure far off stability – New results from RISING. *Journal of Physics, Conference Series* 2006 ;Volume 49. p. 59-64
  19. Guttormsen, Magne; Agvaanluvsan, Undraa; Chankova, Rositsa; Hjorth-Jensen, Morten; Rekstad, John Bernhard; Schiller, Andreas; Siem, Sunniva; Larsen, Ann-Cecilie; Syed, Naeem Ul Hasan; Voinov, Alexander. Single particle entropy in heated nuclei. *AIP Conference Proceedings* 2006 ;Volume 831. p. 162-166
  20. Honma, Micho; Otsuka, Takahuro; Mizusaki, T.; Hjorth-Jensen, Morten. Effective interaction for f5pg9-shell nuclei and two-neutrino double beta-decay matrix elements. *Journal of Physics, Conference Series* 2006 ;Volume 49. p. 45-50
  21. Papenbrock, T.; Dean, David Jarvis; Gour, J. R.; Hagen, G.; Hjorth-Jensen, Morten; Piecuch, P.; Wloch, M. Coupled-cluster theory for nuclei. *International journal of modern physics B* 2006 ;Volume 20. p. 5338-5345
  22. Schiller, Andreas; Agvaanluvsan, Undraa; Algin, Emel; Bagheri, Asadolla; Chankova, Rosita; Guttormsen, Magne; Hjorth-Jensen, Morten; Rekstad, John Bernhard; Siem, Sunniva; Sunde, Ann-Cecilie; Voinov, Alexander. Nuclear thermodynamics below particle threshold. *AIP Conference Proceedings* 2005 (777) p. 216-228
  23. Wloch, Marta; Dean, David J.; Groun, Jeffrey; Piecuch, Piotr; Hjorth-Jensen, Morten; Papenbrock, Thomas; Kowalski, Karol. Ab Initio Coupled-Cluster calculations for Nuclei using Methods of Quantum Chemistry. *European Physical Journal A* Volume: 25 485-488 Published: 2005
  24. Dean, DJ, Hjorth-Jensen, M, Kowalski, K, Piecuch, P, Wloch, M, Coupled-cluster theory for nuclei, *Condensed Matter Theories, VOL 20*, Volume: 20 Pages: 89-97, Published: 2006
  25. Barrett, BR; Dean, DJ; Hjorth-Jensen, Morten; Vary, JP. Nuclear forces and the quantum many-body problem - Preface. *Journal of Physics G: Nuclear and Particle Physics* 2005 ;Volume 31.

26. Honma. M., Otsuka. T, Mizusaki T, Hjorth-Jensen M, Brown BA, Effective interaction for nuclei of  $A=50-100$  and Gamow-Teller properties, Edited by:Suzuki, T; Otsuka, T; Ichimura, M, International Symposium on correlation dynamics in nuclei, Journal of Physics Conference Series, Volume: 20 Pages: 7-12, DOI: 10.1088/1742-6596/20/1/002, Published: 2005. Conference: International Symposium on Correlation Dynamics in Nuclei, Univ Tokyo, Sanjo Kaikan, JAPAN
27. Piecuch, P, Wloch, M, Gour, JR, Dean, DJ, Hjorth-Jensen M, Papenbrock T., Bridging quantum chemistry and nuclear structure theory: Coupled-cluster calculations for closed- and open-shell nuclei, Edited by:Zelevinsky, V, Nuclei and Mesoscopic Physics, AIP Conference Proceedings, Volume: 777 Pages: 28-45, Published: 2005, Conference: Workshop on Nuclei and Mesoscopic Physics, Michigan State Univ, NSCL, E Lansing, MI, OCT 23-26, 2004
28. Schiller A. et al, Nuclear thermodynamics below particle threshold, Edited by:Zelevinsky, V, Nuclei and Mesoscopic Physics, AIP Conference Proceedings, Volume: 777, Pages: 216-228, Published: 2005. Conference: Workshop on Nuclei and Mesoscopic Physics, Michigan State Univ, NSCL, E Lansing, MI, OCT 23-26, 2004
29. Hagen, G; Hjorth-Jensen, M; Vaagen, Jan S. State-dependent interactions for the Gamow shell model. Journal of Physics G: Nuclear and Particle Physics 2005 ;Volume 31.
30. Wloch, Marta; Grou, Jeffrey; Piecuch, Piotr; Dean, David J.; Hjorth-Jensen, Morten; Papenbrock, Thomas. Coupled-cluster calculations for ground and excited states of closed- and open-shell nuclei using methods of quantum chemistry. Journal of Physics G: Nuclear and Particle Physics 2005 ;Volume 31. S1291-S1299
31. Belic, Alexandar; Dean, David J.; Hjorth-Jensen, Morten. Pairing correlations and transitions in nuclear systems. Nuclear Physics A 2004 ;Volume 731. p. 381-391
32. Dean, DJ, Gour, JR, Hagen, G, Hjorth-Jensen, M, Kowalski K, Papenbrock, T, Piecuch, P, Wloch, M, Nuclear structure calculations with coupled cluster methods from quantum chemistry, Nuclear Physics A, Volume: 752 Pages: 299C-308C, DOI: 10.1016/j.nuclphysa.2005.02.041, Published: Apr 18 2005
33. Dean, DJ, Hjorth-Jensen, M, Kowalski, K, Papenbrock, T, Wloch, M, Piecuch, P, Coupled cluster approaches to nuclei, ground states and excited states, Edited by:Covello, A, Key topics in nuclear structure, Pages: 147-157, Published: 2005, Conference: 8th International Spring Seminar on Nuclear Physics, Location: Paestum, Italy, May 23-27, 2004

34. Brown, B.A.; Clement, R.; Schatz, H.; Giansiracusa, J.; Richter, W.A.; Hjorth-Jensen, Morten; Kratz, K.L.; Pfeiffer, B.; Walters, W.B. Nuclear structure theory for the astrophysical rp-process and r-process. *Nuclear Physics A* 2003 ;Volume 719. p. 177-184
35. Dean, David J.; Hjorth-Jensen, Morten. Toward coupled-cluster implementations in nuclear structure. *AIP Conference Proceedings* 2003 ;Volume 656. p 197-204
36. Schiller A. et al, Radiative strength functions and level densities, Pages: 432-440 (2003), Conference: 11th International Symposium on Capture Gamma-Ray Spectroscopy and Related Topics, Pruhonice, Czech Republic, sep 02-06, 2002
37. Hjorth-Jensen, Morten. Pairing correlations, from neutron stars to finite nuclei. *Progress of Theoretical Physics Supplement* 2002 ;Volume 146. p. 289-298
38. Schiller, Andreas; Guttormsen, Magne; Hjorth-Jensen, Morten; Melby, Elin; Rekstad, John Bernhard; Siem, Sunniva. Level density and thermal properties in rare earth nuclei. *Physics Atomic Nuclei* 2001 ;Volume 64.(7) p. 1186-1193
39. Elgarøy, Øystein; Engeland, Torgeir; Hjorth-Jensen, Morten; Osnes, Eivind. Pairing correlations in nuclear systems, from infinite nuclear matter to finite nuclei. *International journal of modern physics B* 2001 ;Volume 15. p. 1501-1509
40. Vidanya, Isaac; Polls, Artur; Ramos, Angels; Engvik, Lars; Hjorth-Jensen, Morten. Hyperon effects on the properties of beta-stable neutron star matter. *Nuclear Physics A* 2001 ;Volume 691. p. 443-446
41. Rekstad, John Bernhard; Bergholt, Lisbeth; Guttormsen, Magne; Hjorth-Jensen, Morten; Ingebretsen, Finn; Melby, Elin; Messelt, Svein; Schiller, Andreas; Siem, Sunniva; Ødegård, Stein Westad. Measurement of level densities and gamma ray strength functions. *AIP Conference Proceedings* 2000 ;Volume 529.(1) p. 144-151
42. Engeland T, Hjorth-Jensen M, Osnes E., Effective interactions in medium heavy nuclei, *NUCLEAR PHYSICS A* 701 Pages: 416C-421C (2002). Conference: 5th International Conference on Radioactive Nuclear Beams, Divonne, France, March 27-APR 01, 2000
43. Engeland T, Hjorth-Jensen M, Holt A, and Osnes E, Large-scale realistic nuclear structure studies in the Sn-region. Edited by:Covello, A. Conference: 7th International Spring Seminar on Nuclear Physics, Maiori, Italy, MAY 27-31, 2001

44. Schiller et al, Level density and thermal properties in rare earth nuclei. Conference: International Conference on Nuclear Structure and Related Topics, DUBNA, RUSSIA, JUN 06-10, 2000. PHYSICS OF ATOMIC NUCLEI 64 Pages: 1186-1193 DOI: 10.1134/1.1389540 Published: JUL 2001
45. Lipoglavsek, M, Baktash, C, Carpenter, MP, et al, First observation of excitation across the Sn-100 core. Conference: Conference on Nuclear Structure 2000 (NS2000), E LANSING, MICHIGAN, AUG 15-19, 2000. Nuclear Physics A 682 Pages: 399C-403C (2001), DOI: 10.1016/S0375-9474(00)00666-7
46. Siiskonen, Teemu; Suhonen, Jouni; Hjorth-Jensen, Morten. Effective Shell-Model Transition Operators for Muon-Capture Calculations. Conference: 2nd International Conference on Nonaccelerator New Physics (NANP 99) Location: Joint inst nuclear res, Dubna, Russia Date: JUN 28-JUL 03, 1999. Physics of Atomic Nuclei Volume: 63 Issue: 7 Pages: 1182-1186 Published: JUL 2000
47. Suhonen, J; Aunola, M; Kortelainen, M; et al., Refined shell-model matrix elements for muon-capture processes. Conference: Workshop on Calculation of Double-Beta-Decay Matrix Elements (MEDEX 99) Location: PRAGUE, CZECH REPUBLIC Date: JUL 20-23, 1999, CZECHOSLOVAK JOURNAL OF PHYSICS Volume: 50 Issue: 4 Pages: 567-575 Published: APR 2000
48. Siem, S; Schiller, A; Guttormsen, M; et al., Level density and thermal properties in rare earth nuclei. Conference: International Symposium on Exotic Nuclear Structures (ENS 2000) Location: DEBRECEN, HUNGARY Date: MAY 15-20, 2000 ACTA PHYSICA HUNGARICA NEW SERIES-HEAVY ION PHYSICS Volume: 12 Issue: 2-4 Pages: 299-302 Published: 2000
49. Rekstad, J; Bergholt, L; Guttormsen, M; et al., Measurements of level densities and gamma ray strength functions. Edited by: Wender, S. Conference: 10th International Symposium on Capture Gamma-Ray Spectroscopy and Related Topics Location: SANTA FE, NM Date: AUG 30-SEP 03, 1999. AIP CONFERENCE PROCEEDINGS Volume: 529 Pages: 144-151 Published: 2000
50. Melby, E; Bergholt, L; Guttormsen, M; et al., Experimental temperature and heat capacity in rare earth nuclei. Conference: International Conference on Achievements and Perspectives in Nuclear Structure Location: IRAKLION, GREECE Date: JUL 11-17, 1999, PHYSICA SCRIPTA Volume: T88 Pages: 138-140 Published: 2000
51. Stone, N.J.; White, G.N.; Rikovska, J.; Ohya, S.; Giles, T.J.; Towner, I.S.; Brown, B.A.; Fogelberg, Birger; Jacobsson, L.; Hjorth-Jensen, Morten.

- NMR/ON nuclear magnetic dipole moments near  $^{132}\text{Sn}$ : I. At the shell closure: meson exchange current effects. *Hyperfine Interactions* 1999 ;Volume 120. p. 645-649
52. White, G.N.; Stone, N.J.; Rikowska, J.; Ohya, S.; Giles, T.J.; Towner, I.S.; Brown, B.A.; Fogelberg, Birger; Jacobsson, L.; Hjorth-Jensen, Morten. New on-line NMR/ON nuclear magnetic dipole moments near  $^{132}\text{Sn}$ : II variation with proton and neutron number: shell model treatment of 'collective' effects. *Hyperfine Interactions* 1999 ;Volume 120. p. 651-655
  53. Elgaroy, O; Hjorth-Jensen, M, Properties of pairing correlations in infinite nuclear matter. Edited by: daProvidencia, J; Malik, FB. Conference: 21st International Workshop on Condensed Matter Theories Location: LUSO, PORTUGAL Date: SEP 22-26, 1997. CONDENSED MATTER THEORIES, Volume: 13 Pages: 381-391 Published: 1998
  54. Drago, Alessandro; Hjorth-Jensen, Morten; Tambini, Ubaldo. Neutron stars and massive quark matter. *Progress in Particle and Nuclear Physics* 1996 ;Volume 36. p. 407-408
  55. Engeland, T, Hjorth-Jensen, M, Holt, A., and Osnes, E., Extensive nuclear structure calculations in the tin isotopes. Edited by: Klapdor Klingrothaus, HV and Stoica, S. Conference: International Workshop on Double-Beta Decay and Related Topics Location: ECT\*, TRENTO, ITALY Date: APR 24-MAY 05, 1995, (World Scientific, Singapore, 1996), Pages: 421-451
  56. Engeland, Torgeir; Hjorth-Jensen, Morten; Holt, Anne; Osnes, Eivind. Large shell model calculations with realistic effective interactions. *Physica Scripta* 1995 ;T56. p. 58-66 Conference: International Symposium on New Nuclear Structure Phenomena in the Vicinity of Closed Shells Location: STOCKHOLM, SWEDEN, AUG 30-SEP 03, 1994
  57. Hjorth-Jensen, Morten; Engeland, Torgeir; Holt, Anne; Osnes, Eivind. Perturbative many-body approaches to finite nuclei. *Physics reports* 1994 ;242. p. 37-69 By: Conference: International Conference on Realistic Nuclear Structure, to Celebrate the 60th Birthday of TTS Kuo, Suny Stony Brook, NY, USA, May 28-30, 1992
  58. Holt, Anne; Engeland, Torgeir; Hjorth-Jensen, Morten; Osnes, Eivind. The structure of the neutron deficient Sn isotopes. *Nuclear Physics A* 1994 ;Volume 570. p. 137c-144c Conference: International Symposium on Nuclear Structure Physics Today Location: Chung Yuan Christian Univ, Chungli, Taiwan Date: MAY 11-15, 1993
  59. Hjorth-Jensen, Morten, Microscopic nuclear-structure calculations with modern meson-exchange potentials, Edited by A. Covello, 3rd international spring seminar on nuclear physics, Ischia, Italy, May 21-25, 1990, (World Scientific Singapore, 1991), pages 87-97

### Lectures and organization of schools:

1. The FRIB-TA Summer School: Practical Uncertainty Quantification and Emulator Development in Nuclear Physics at Facility for Rare Isotope Beams (FRIB) on the campus of Michigan State University (MSU) in East Lansing, MI USA, June 26-28 2023. Organizers and teachers, <https://indico.frib.msu.edu/event/65/overview>. Co-organizer and teacher with several other.
2. Alexei Bazavov, Scott Bogner, Heiko Hergert, Morten Hjorth-Jensen, Matthew Hirn, Dean Lee, Huey-Wen Lin, and Andrea Shindler, <https://indico.frib.msu.edu/event/54/>, FRIB TA Summer School - Quantum Computing and Nuclear few- and many-body problems, Facility for Rare Isotope Beams (FRIB) on the Michigan State University campus in East Lansing, MI from June 20 to June 22, 2022.
3. Morten Hjorth-Jensen, Nuclear Talent Course on Machine Learning in Nuclear Physics for the Erasmus+ program <http://www.emm-nucphys.eu/>, European Master in Nuclear Physics, University of Basse-Normandie and GANIL, September 15 2021-January 24, 2022. 30 lectures and 30 exercise sessions. Main teacher
4. Morten Hjorth-Jensen, Daniel Bazin, Sean Liddick, , Michelle Kuchera, and R. Ramanujan, Online Nuclear Talent course on Machine Learning Applied to Nuclear Physics, European Center for Theoretical Nuclear Physics and Related Areas, Trento, Italy, July 19 to July 30, 2021. Main organizer and teacher.
5. Morten Hjorth-Jensen, **2021 CHPC Introductory Programming Summer School**, South Africa, February 1-28, 2021, [five lectures on Machine Learning](#).
6. Morten Hjorth-Jensen, Nuclear Talent Course on Machine Learning in Nuclear Physics for the Erasmus+ program <http://www.emm-nucphys.eu/>, European Master in Nuclear Physics, University of Basse-Normandie and GANIL, January 18-29, 2021. 30 lectures and 30 exercise sessions. Main teacher
7. Morten Hjorth-Jensen, Daniel Bazin, Sean Liddick, , Michelle Kuchera, and R. Ramanujan, Online Nuclear Talent course on Machine Learning Applied to Nuclear Physics, European Center for Theoretical Nuclear Physics and Related Areas, Trento, Italy, June 22 to July 3, 2020. Main organizer and teacher.
8. Online lectures on **Machine Learning weeks at MSU-FRIB/NSCL**, May 2020. I lectured to undergraduate, graduate and post-docs at FRIB/MSU from May 18 till May 29 on Machine Learning applied to Nuclear Physics. Two lectures per day and one hour of hands-on sessions. On average between 25-30 participants per day. All material is available at <https://>

[github.com/mhjensen/MachineLearningMSU-FRIB2020](https://github.com/mhjensen/MachineLearningMSU-FRIB2020). In total I gave 20 one-hour lectures.

9. Morten Hjorth-Jensen, Nuclear Talent Course on Machine Learning in Nuclear Physics for the Erasmus+ program <http://www.emm-nucphys.eu/>, European Master in Nuclear Physics, University of Basse-Normandie and GANIL, January 20-31, 2020. 45 lectures and 45 exercise sessions. Main teacher
10. Morten Hjorth-Jensen, Matthew Hirn, Michelle Kuchera, and R. Ramanujan, <https://indico.frib.msu.edu/event/16/>, FRIB TA Summer School - Machine Learning Applied to Nuclear Physics, Facility for Rare Isotope Beams (FRIB) on the Michigan State University campus in East Lansing, MI from May 20 to 23, 2019. Main organizer and teacher.
11. **Hackathon on Computing in Science Education**, June 3-7, 2019, Michigan State University, East Lansing, USA. . Intensive workshop on Computing in Physics Education at Michigan State University. Organized together with Danny Caballero, MSU.
12. Morten Hjorth-Jensen, Nuclear Talent Course on Machine Learning in Nuclear Physics for the Erasmus+ program <http://www.emm-nucphys.eu/>, European Master in Nuclear Physics, University of Basse-Normandie and GANIL, January 21-February 1, 2019. 45 lectures and 45 exercise sessions. Main teacher
13. Nuclear Talent course on Many-body methods for nuclear physics, from Structure to Reactions at Henan Normal University, P.R. China, July 16-August 5 2018. Teachers: Kevin Fossez, Morten Hjorth-Jensen, Thomas Papenbrock, and Ragnar Stroberg.
14. Alex Brown, Alexandra Gade, Morten Hjorth-Jensen, Gustav Jansen, Robert Grzywacz, Nuclear Talent course on Nucleartheory for Nuclear Structure Experiments, July 3-21 2017. [Main organizer and teacher with in total fifteen hours of lectures.](#)
15. Hjorth-Jensen, Morten, [High performance computing in Nuclear Physics](#), Lecture at the *Advanced Computational Research Experience* at Michigan State University, East Lansing, Michigan, June 1, 2017.
16. Hjorth-Jensen, Morten, [How to write good code](#), Lecture at the *Advanced Computational Research Experience* at Michigan State University, East Lansing, Michigan, May 24, 2017.
17. Hjorth-Jensen, Morten, [Computational Nuclear Physics and Post Hartree-Fock Methods. Configuration Interaction Theory, Many-Body Perturbation Theory and Coupled Cluster Theory](#), five lectures at 28th Indian-Summer School on Ab Initio Methods in Nuclear Physics, Prague, Czech Republic, August 29 - September 2, 2016.



18. Hjorth-Jensen, Morten, [Computational Physics and Quantum Mechanical Systems](#), one week course on Computational Physics at the University of Tunis El Manar, Tunis, Tunisia, May 16-20, 2016. In total 15 hours of lectures and 15 hours of computer lab and exercises.
19. Co-organizer with Giuseppina Orlandini and Alejandro Kievsky of Nuclear Talent course [Few-body methods and nuclear reactions](#), ECT\*, Trento, Italy, July 20-August 7 2015
20. Carlo Barbieri, Wim Dickhoff, Gaute Hagen, Morten Hjorth-Jensen, and Artur Polls, Nuclear Talent course on Many-body methods for nuclear physics, GANIL, Caen, France, July 5-25 2015. [Main organizer and teacher with in total five hours of lectures.](#)
21. Hjorth-Jensen, Morten, ECT\* [Doctoral Training Program 2015 on Computational Nuclear Physics](#), April 13- May 22, ECT\*, Trento, Italy. I taught the last week of the lecture series. In total I have ten one hour lectures.
22. Hjorth-Jensen, Morten, Nuclear Talent School in Nuclear Astrophysics, co-organizer with Richard Cyburt and Hendrik Schatz of the Nuclear Talent course on Nuclear Astrophysics, Michigan State University, May 26 - June 13, 2014.
23. Hjorth-Jensen, Morten, Nuclear Talent course on Density Functional theories, co-organizer with Scott Bogner, Nicolas Schunck, Dario Vretenar and Peter Ring, European Center for Theoretical Nuclear Physics and Related Areas, Trento, Italy, July 13 -August 1 2014.
24. Hjorth-Jensen, Morten, Nuclear Talent Course Introduction on High-performance computing and computational tools for nuclear physics; ECT\*, Trento, Italy, June 24 - July 13 2012. Main organizer and teacher together with Francesco Pederiva, Kevin Schmidt and Calvin Johnson.
25. Hjorth-Jensen, Morten. Computational environment for Nuclear Structure, five lectures in Nuclear Physics at Universidad Complutense Madrid; 2011-01-17 - 2011-02-09
26. Hjorth-Jensen, Morten, organizer with David Dean, Thomas Papenprock and Gaute Hagen. Third MSU-UT/ORNL-UiO winter school in nuclear physics; Oak Ridge National Lab, Tennessee, January 2012
27. Hjorth-Jensen, Morten, organizer with Alex Brown and teaching five lectures. Second MSU-UT/ORNL-UiO winter school in nuclear physics, East Lansing, Michigan, USA; 2011-01-03 - 2011-01-07
28. Hjorth-Jensen, Morten, organizer, First MSU-UT/ORNL-UiO winter school in nuclear physics, Wadahl, Norway, January 4-10 2010

29. Hjorth-Jensen, Morten. Five lectures on Theory of shell-model studies for nuclei. CERN/Isolde course on nuclear structure theory; 2010-03-01 - 2010-03-04
30. Hjorth-Jensen, Morten. Six lectures on Nuclear interactions and the Shell Model. 8th CNS-EFES International Summer School, Riken, Tokyo, Japan, 2009-08-26 - 2009-09-01
31. Hjorth-Jensen, Morten. Five lectures on nuclear theory at the 20th Chris Engelbrecht Summer School in Theoretical Physics, Stellenbosch, South Africa, 2009-01-19 - 2009-01-28
32. Hjorth-Jensen, Morten. Nuclear many-body theory, five lectures at the UK Postgraduate Nuclear Physics Summer School, Leicester, UK, 2009-09-12 - 2009-09-23
33. Hjorth-Jensen, Morten. Nuclear many-body methods. Lectures series at Lund University; 2008-05-04 - 2008-05-07
34. Hjorth-Jensen, Morten. Trends in Nuclear Structure Theory. Workshop at the University of Lund; 2008-05-07 - 2008-05-07
35. Hjorth-Jensen, Morten. Trends in Nuclear Structure Theory. Physics Division Seminar; 2008-04-17 - 2008-04-17
36. Hjorth-Jensen, Morten. Trends in nuclear structure theory. Lecture series at the University of Padova and Legnaro National Laboratory, Padova Italy; 2008-07-16 - 2008-07-19
37. Hjorth-Jensen, Morten. Five lectures on Monte Carlo methods and applications in the physical sciences. eScience Winther School 2007; Geilo, Norway 2007-01-28 - 2007-02-02
38. Hjorth-Jensen, Morten. Five lectures at the ISOLDE Spring School in Nuclear Theory; CERN, Switzerland, 2007-05-21 - 2007-05-26
39. Hjorth-Jensen, Morten. Ten lectures at ECT\* Doctoral Training Programme 2007; Trento, Italy, April 16-20
40. Hjorth-Jensen, Morten. From the nucleon-nucleon interaction to a renormalized interaction for nuclear systems. Lecture series at Michigan State University; April 2005
41. Hjorth-Jensen, Morten. CENS: A computational Environment for Nuclear Structure. Isolde Lecture series; 2004-11-11 - 2005-11-25

**Talks, lectures and seminars at workshops, conferences, schools and institute colloquia.**

1. Hjorth-Jensen, Morten, [Quantum Computing and Quantum Mechanics for Many Interacting Particles](#), Gemini center at Sintef seminar, Oslo, March 3, 2021
2. Hjorth-Jensen, Morten, [Machine Learning and Quantum Mechanics for Many Interacting Particles](#), NITheP Colloquium, South Africa, Monday, 8 February 2021
3. Hjorth-Jensen, Morten, Machine Learning meets Nuclear Physics, XAI seminar series: Explaining what goes on inside DNN/AI, SINTEF/University of Oslo, Norway, December 8, 2020.
4. Hjorth-Jensen, Morten, Machine Learning meets Nuclear Physics, University of the Western Cape, South Africa, November 30- December 4, 2020, online workshop **Tastes of Nuclear Physics** <http://nuclear.uwc.ac.za/index.php/tnp2020/>
5. Hjorth-Jensen, Morten, Machine Learning meets Nuclear Physics, Institute colloquium at the Department of Physics, University of Padova, Italy, October 13, 2020.
6. Hjorth-Jensen, Morten, Machine Learning and Quantum Mechanics for Many Interacting Particles, UiO, March 3, 2020 <https://www.mn.uio.no/math/english/research/groups/statistics-data-science/events/seminars/hjorth-jensen.html>
7. Hjorth-Jensen, Morten, Lecture on Nuclear Physics at the NS3 school, FRIB, Michigan State University, May 15, 2019. Main organizer Artemis Spyrou, Michigan State University.
8. Morten Hjorth-Jensen, Solving Quantum Mechanical Many-body Problems with Machine Learning Algorithms, Chalmers Tekniska Högskola, Göteborg, Sverige, October 28, 2019.
9. Hjorth-Jensen, Morten, Integrating a Computational Perspective in Physics (and Science) Courses, October 23, 2019. Ole Rømer Colloquium, Department of Physics and Astronomy, University of Århus, Denmark <https://phys.au.dk/en/news/item/artikel/ole-roemer-colloquium-morten-hjort-jensen-tba/>
10. Morten Hjorth-Jensen, Solving Quantum Mechanical Many-body Problems with Machine Learning Algorithms, University of Surrey, Guildford, UK, October 1, 2019.
11. Hjorth-Jensen, Morten, Machine Learning and Quantum Mechanics for Many Interacting Particles, University of Ohio, Athens, April 16, 2019 <https://mhjensenseminars.github.io/MachineLearningTalk/doc/pub/unitn/html/uniohio-reveal.html>

12. Hjorth-Jensen, Morten, Machine Learning and Quantum Mechanics for Many Interacting Particles, University of Trento, Italy, March 12, 2019, 2019 <https://mhjensenseminars.github.io/MachineLearningTalk/doc/pub/unitn/html/unitn-reveal.html>
13. Hjorth-Jensen, Morten, "Integrating Computations in Physics Courses, Workshop on New Horizons in Teaching Science: 18th-19th, June 2018, University of Messina, Italy"
14. Hjorth-Jensen, Morten, Nuclear Structure studies from decay spectroscopy, Decay Station Workshop, NSCL/FRIB Michigan State University, January 25-26, 2018
15. Hjorth-Jensen, Morten, Computing in Science Education; how to integrate computing in Science courses across disciplines, seminar at the University of Surrey, UK, November 28 2017
16. Hjorth-Jensen, Morten, Computing in Physics Education, Invited talk at the 103rd National congress of the Italian Physical Society, Trento, September 11-15, 2017, Italy
17. Alex Brown, Alexandra Gade, Morten Hjorth-Jensen, Gustav Jansen, Robert Grzywacz, Nuclear Talent course on Nucleartheory for Nuclear Structure Experiments, July 3-21 2017. Main organizer and teacher with in total fifteen hours of lectures.
18. Hjorth-Jensen, Morten, High performance computing in Nuclear Physics, Lecture at the *Advanced Computational Research Experience* at Michigan State University, East Lansing, Michigan, June 1, 2017.
19. Hjorth-Jensen, Morten, How to write good code, Lecture at the *Advanced Computational Research Experience* at Michigan State University, East Lansing, Michigan, May 24, 2017.
20. Hjorth-Jensen, Morten, Minnetalen over Hans Petter Langtangen, Det Norske Vitenskapsakademiet, Oslo, Norway, March 16, 2017.
21. Hjorth-Jensen, Morten, Living on the edge of stability, challenges to nuclear theory in the FRIB era, Nuclear Physics seminar, University of Notre Dame, Notre Dame, IN 46556, USA, January 30, 2017
22. Hjorth-Jensen, Morten, Computational Nuclear Physics and Post Hartree-Fock Methods. Configuration Interaction Theory, Many-Body Perturbation Theory and Coupled Cluster Theory, five lectures at 28th Indian-Summer School on Ab Initio Methods in Nuclear Physics, Prague, Czech Republic, August 29 - September 2, 2016.
23. Hjorth-Jensen, Morten, Computational Physics and Quantum Mechanical Systems, one week course on Computational Physics at the University of Tunis El Manar, Tunis, Tunisia, May 16-20, 2016. In total 15 hours of lectures and 15 hours of computer lab and exercises.

24. Hjorth-Jensen, Morten, [Correlations in many-body systems; from condensed matter physics to nuclear physics](#), T-2, Nuclear and Particle Physics, Astrophysics and Cosmology, Los Alamos National Laboratory, New Mexico, USA, Tuesday, April 12, 2016
25. Hjorth-Jensen, Morten, [Integrating a Computational Perspective in the Basic Science Education](#), Department of Physics Colloquium at Central Michigan University, Kalamazoo, Michigan, USA, April 4, 2016
26. Co-organizer with Giuseppina Orlandini and Alejandro Kievsky of Nuclear Talent course [Few-body methods and nuclear reactions](#), ECT\*, Trento, Italy, July 20-August 7 2015
27. Carlo Barbieri, Wim Dickhoff, Gaute Hagen, Morten Hjorth-Jensen, and Artur Polls, Nuclear Talent course on Many-body methods for nuclear physics, GANIL, Caen, France, July 5-25 2015. [Main organizer and teacher with in total five hours of lectures](#).
28. Hjorth-Jensen, Morten, ECT\* [Doctoral Training Program 2015 on Computational Nuclear Physics](#), April 13- May 22, ECT\*, Trento, Italy. I taught the last week of the lecture series. In total I have ten one hour lectures.
29. Hjorth-Jensen, Morten, [Correlations in many-body systems, from condensed matter physics to nuclear physics](#), invited talk at Clarkfest 15, conference in honor of John W Clark, Wayman Crow Professor of Physics, Washington University in St. Louis, Missouri, April 27-28 2015.
30. Hjorth-Jensen, Morten, [Correlations in many-body systems, from condensed matter physics to nuclear physics](#), Nuclear Physics Seminar, Iowa State University, Ames, Iowa, April 22 2015.
31. Hjorth-Jensen, Morten, Nuclear physics education and the national FRIB theory center, plus some cool ways to organize your lectures, special seminar, Iowa State University, Ames, Iowa, April 23 2015.
32. Hjorth-Jensen, Morten, Integrating a Computational Perspective in the Basic Science Education, Special Lectures and Events, Notre Dame University, South Bend, Indiana, March 30 2015.
33. Hjorth-Jensen, Morten, Computing in Science Education. Integrating a Computational Perspective in the Basic Science Education, Physics Colloquium, Central Michigan University, Mt Pleasant, March 19 2015.
34. Hjorth-Jensen, Morten, From Nuclei to Neutron Stars: Why Is Matter Stable? Physics Colloquium, Ohio University, Athens, Ohio, February 27 2015.
35. Hjorth-Jensen, Morten, Computing in Science Education. Integrating a Computational Perspective in the Basic Science Education, condensed matter seminar, Ohio University, Athens, Ohio, February 26 2015.

36. Hjorth-Jensen, Morten, Theory challenges around  $^{78}\text{Ni}$  and  $^{132}\text{Sn}$ , invited talk at RIBSS Center retreat and CSAC, Michigan State University, June 11-13 2014.
37. Hjorth-Jensen, Morten, Living at the edge of stability, understanding the limits of the nuclear landscape, Institute colloquium, Department of Physics, Louisiana State University, Baton Rouge, Louisiana, April 3 2014.
38. Hjorth-Jensen, Morten, Computing in Science education, how to introduce a computational perspective in the basic science education, special colloquium Department of Physics, Louisiana State University, Baton Rouge, Louisiana, April 4 2014.
39. Hjorth-Jensen, Morten, Correlations in Nuclei and Quantum Dots, invited talk at The Fourth Conference on NUCLEI and MESOSCOPIC PHYSICS, Michigan State University, May 5-9 2014.
40. Hjorth-Jensen, Morten, Nuclear Talent School in Nuclear Astrophysics, co-organizer with Richard Cyburt and Hendrik Schatz of the Nuclear Talent course on Nuclear Astrophysics, Michigan State University, May 26 - June 13, 2014.
41. Hjorth-Jensen, Morten, Nuclear Talent course on Density Functional theories, co-organizer with Scott Bogner, Nicolas Schunck, Dario Vretenar and Peter Ring, European Center for Theoretical Nuclear Physics and Related Areas, Trento, Italy, July 13 -August 1 2014.
42. Hjorth-Jensen, Morten. Living at the edge of stability, understanding the limits of the nuclear landscape. Institute colloquium Centre Etudes Nucléaires de Bordeaux Gradignan; 2013-12-10 - 2013-12-10
43. Hjorth-Jensen, Morten. Educating the next generation of nuclear scientists; how can a center like the ECT\* aid in developing modern nuclear physics educational programs?. ECT\* 20th anniversary colloquium; 2013-09-14 - 2013-09-14
44. Hjorth-Jensen, Morten. Living at the edge of stability, understanding the limits of the nuclear landscape; computational and algorithmic challenges. XXV IUPAP Conference on Computational Physics, August 20, 2013-August 24, 2013, Moscow, Russia; 2013-08-20 - 2013-08-24
45. Hjorth-Jensen, Morten. Living at the edge of stability, understanding the nuclear landscape. Theory seminar National Superconducting Cyclotron Laboratory; 2013-03-19 - 2013-03-19
46. Hjorth-Jensen, Morten. Living on the edge of stability, the limits of nuclear landscape. Physics Division seminar, Argonne National Laboratory, Illinois, USA; 2013-06-05 - 2013-06-05

47. Hjorth-Jensen, Morten. Living on the edge of stability, the limits of the nuclear landscape. Institute colloquium; 2013-03-22 - 2013-03-22
48. Hjorth-Jensen, Morten. Living on the edge of stability, understanding the limits of the nuclear landscape. Nuclear Theory in the Supercomputing Era; 2013-05-13 - 2013-05-17
49. Hjorth-Jensen, Morten. Computing in Science Education. Seminar at college of engineering; 2012-03-15 - 2012-03-15
50. Hjorth-Jensen, Morten. Computing in Science Education, a new way to teach science?. Institute seminar The Ohio State University; 2012-02-28 - 2012-02-28
51. Hjorth-Jensen, Morten. Evolution of shell structure in neutron-rich isotopes. Research seminar National Superconducting Cyclotron Laboratory; 2012-03-15 - 2012-03-15
52. Hjorth-Jensen, Morten. Evolution of shell structure in neutron-rich isotopes and the stability of nuclear matter. Exotic Nuclear Structure from Nucleons; 2012-10-10 - 2012-10-12
53. Hjorth-Jensen, Morten. Introduction to computational nuclear physics. High-performance computing and computational tools for nuclear physics; 2012-06-24 - 2012-07-13
54. Hjorth-Jensen, Morten. Lecture 2: Configuration interaction theory. High-performance computing and computational tools for nuclear physics; 2012-06-24 - 2012-07-13
55. Hjorth-Jensen, Morten. Lectures 3-5: Configuration interaction theory and computational nuclear physics. High-performance computing and computational tools for nuclear physics; 2012-06-24 - 2012-07-13
56. Hjorth-Jensen, Morten. Shell Structure in Neutron-rich isotopes and the stability of nuclear matter. Berkeley Lab Colloquia 2012; 2012-05-30 - 2012-05-30
57. Hjorth-Jensen, Morten. Understanding the stability of nuclear matter. Nuclear structure seminar The Ohio State University; 2012-02-29 - 2012-02-29
58. Hjorth-Jensen, Morten. Understanding the stability of nuclear matter. Triangle Nuclear Theory Colloquium; 2012-05-01 - 2012-05-01
59. Hjorth-Jensen, Morten. Why is matter stable?. Theory of Nuclear Physics Related to the RI Facilities; 2012-05-11 - 2012-05-12
60. Hjorth-Jensen, Morten. Why is matter stable? Understanding the limits of stability of nuclear matter. Nobel Symposium 152; 2012-06-10 - 2012-06-15

61. Hjorth-Jensen, Morten. Computational environment for Nuclear Structure, Lectures I-V. Lecture series in Nuclear Physics at Universidad Complutense Madrid; 2011-01-17 - 2011-02-09
62. Hjorth-Jensen, Morten. Computers in Science Education; a new way to teach Science?. Institute seminar; 2011-03-21 - 2011-03-21
63. Hjorth-Jensen, Morten. Computers in Science Education; a new way to teach Science?. Seminar at Universidad Complutense Madrid; 2011-01-24 - 2011-01-24
64. Hjorth-Jensen, Morten. From few to many nucleons; a tale on recent advances (and challenges) in nuclear many-body theory. Institute seminar; 2011-03-25 - 2011-03-25
65. Hjorth-Jensen, Morten. Linking nuclear forces with many-body methods, Lecture II. Second MSU-UT/ORNL winter school in nuclear physics; 2011-01-03 - 2011-01-07
66. Hjorth-Jensen, Morten. Many-body interactions and nuclear structure. Institute seminar National Superconducting Cyclotron laboratory; 2011-01-05 - 2011-01-05
67. Hjorth-Jensen, Morten. Many-body interactions and nuclear structure. Seminar at Universidad Complutense Madrid; 2011-01-18 - 2011-01-18
68. Hjorth-Jensen, Morten. Many-body interactions and nuclear structure at the limits of stability. Institute seminar; 2011-03-22 - 2011-03-22
69. Hjorth-Jensen, Morten. Many-body interactions and nuclear structure at the limits of stability. Nordic Nuclear Physics conference 2011; 2011-06-13 - 2011-06-17
70. Hjorth-Jensen, Morten. Many-body interactions and nuclear structure at the limits of stability. Nuclear Physics in Astrophysics - V; 2011-04-03 - 2011-04-09
71. Hjorth-Jensen, Morten. Many-body methods, Lecture III. Second MSU-UT/ORNL winter school in nuclear physics; 2011-01-03 - 2011-01-07
72. Hjorth-Jensen, Morten. Many-body methods, Lectures IV and V. Second MSU-UT/ORNL winter school in nuclear physics; 2011-01-03 - 2011-01-07
73. Hjorth-Jensen, Morten. Nuclear structure at the limits of stability. Division of Nuclear Physics Meeting 2011; 2011-10-25 - 2011-10-29
74. Hjorth-Jensen, Morten. Parallel programming with MPI. The 10th Annual Meeting on High Performance Computing and Infrastructure in Norway; 2011-05-23 - 2011-05-27



75. Hjorth-Jensen, Morten. Renormalization of nuclear forces, Lecture set I. Second MSU–UT/ORNL winter school in nuclear physics; 2011-01-03 - 2011-01-07
76. Hjorth-Jensen, Morten. Computers in Science Education. Institute seminar at the university of Trento, Italy; 2010-05-05 - 2010-05-05
77. Hjorth-Jensen, Morten. Deriving nuclear forces. CERN/Isolde course on nuclear structure theory; 2010-03-01 - 2010-03-04
78. Hjorth-Jensen, Morten. From few to many nucleons; a tale on recent advances (and challenges) in nuclear many-body theory. Institute seminar; 2010-07-22 - 2010-07-22
79. Hjorth-Jensen, Morten. From few to many nucleons; a tale on recent advances (and challenges) in nuclear many-body theory. Spiral2 week 2010; 2010-01-25 - 2010-01-29
80. Hjorth-Jensen, Morten. High-performance computing and quantum mechanical problems. Future needs for eInfrastructure for Norwegian research, March 19 2010; 2010-03-19 - 2010-03-19
81. Hjorth-Jensen, Morten. Many-body interactions and nuclear structure. New faces of atomic nuclei; 2010-11-15 - 2010-11-17
82. Hjorth-Jensen, Morten. Many-body methods for nuclear structure studies. CERN/Isolde course on nuclear structure theory; 2010-03-01 - 2010-03-04
83. Hjorth-Jensen, Morten. Many-body theory for exotic nuclei and coupled-cluster theory. CERN/Isolde course on nuclear structure theory; 2010-03-01 - 2010-03-04
84. Hjorth-Jensen, Morten. Modern theory of effective interactions. Zakopane Conference On Nuclear Physics 2010; 2010-08-30 - 2010-09-05
85. Hjorth-Jensen, Morten. Overview of nuclear forces. CERN/Isolde course on nuclear structure theory; 2010-03-01 - 2010-03-04
86. Hjorth-Jensen, Morten. Renormalizing nuclear forces. CERN/Isolde course on nuclear structure theory; 2010-03-01 - 2010-03-04
87. Hjorth-Jensen, Morten. Role of many-body forces in nuclei. CERN/Isolde course on nuclear structure theory; 2010-03-01 - 2010-03-04
88. Hjorth-Jensen, Morten. Role of the tensor force in nuclear spectra. CERN/Isolde course on nuclear structure theory; 2010-03-01 - 2010-03-04
89. Hjorth-Jensen, Morten. Shell structure and modern effective interactions. International Nuclear Physics Conference 2010; 2010-07-04 - 2010-07-09

90. Hjorth-Jensen, Morten. Theory of shell-model studies for nuclei. CERN/Isolde course on nuclear structure theory; 2010-03-01 - 2010-03-04
91. Hjorth-Jensen, Morten. Ab initio methods in nuclear physics. Overview and recent achievements. Assemblée Générale des Théoriciens, 15 et 16 octobre, IPN-Orsay; 2009-10-15 - 2009-10-16
92. Hjorth-Jensen, Morten. Can we do ab initio calculations for nuclei beyond  $A=16$ ?. 7th Biennial Yale Nuclear structure workshop; 2009-06-18 - 2009-06-21
93. Hjorth-Jensen, Morten. Computers in Science Education. Institutt kollokvium; 2009-04-28 - 2009-04-28
94. Hjorth-Jensen, Morten. Datamaskiner i realfagsopplæringen, en ny måte å undervise realfag på?. Institutt kollokvium; 2009-02-13 - 2009-02-13
95. Hjorth-Jensen, Morten. From QCD to the nuclear many-body problem: theory and experiments at Isolde. New Opportunities in the Physics Landscape at CERN Search; 2009-05-10 - 2009-05-13
96. Hjorth-Jensen, Morten. Lecture 1: Models for the nuclear forces. 20th Chris Engelbrecht Summer School in Theoretical Physics; 2009-01-19 - 2009-01-28
97. Hjorth-Jensen, Morten. Lecture 1: Nuclear interactions. Postgraduate Nuclear Physics Summer School '09; 2009-09-12 - 2009-09-23
98. Hjorth-Jensen, Morten. Lecture 1: Nuclear interactions and the Shell Model. 8th CNS-EFES International Summer School; 2009-08-26 - 2009-09-01
99. Hjorth-Jensen, Morten. Lecture 2: Constructing effective interactions for the shell model. Postgraduate Nuclear Physics Summer School '09; 2009-09-12 - 2009-09-23
100. Hjorth-Jensen, Morten. Lecture 2: Nuclear interactions and the shell model. 8th CNS-EFES International Summer School; 2009-08-26 - 2009-09-01
101. Hjorth-Jensen, Morten. Lecture 2: Renormalization of nuclear forces. 20th Chris Engelbrecht Summer School in Theoretical Physics; 2009-01-19 - 2009-01-28
102. Hjorth-Jensen, Morten. Lecture 3: Effective interactions. 20th Chris Engelbrecht Summer School in Theoretical Physics; 2009-01-19 - 2009-01-28
103. Hjorth-Jensen, Morten. Lecture 3: Nuclear interactions and the shell model. 8th CNS-EFES International Summer School; 2009-08-26 - 2009-09-01

104. Hjorth-Jensen, Morten. Lecture 3: Shell model studies. Postgraduate Nuclear Physics Summer School '09; 2009-09-12 - 2009-09-23
105. Hjorth-Jensen, Morten. Lecture 4: Nuclear interactions and the shell model. 8th CNS-EFES International Summer School; 2009-08-26 - 2009-09-01
106. Hjorth-Jensen, Morten. Lecture 4: Nuclear many-body methods. 20th Chris Engelbrecht Summer School in Theoretical Physics; 2009-01-19 - 2009-01-28
107. Hjorth-Jensen, Morten. Lecture 5: Nuclear interactions and the shell model. 8th CNS-EFES International Summer School; 2009-08-26 - 2009-09-01
108. Hjorth-Jensen, Morten. Lecture 5: Nuclear many-body methods. 20th Chris Engelbrecht Summer School in Theoretical Physics; 2009-01-19 - 2009-01-28
109. Hjorth-Jensen, Morten. Lecture 6: Nuclear interactions and the shell model. 8th CNS-EFES International Summer School; 2009-08-26 - 2009-09-01
110. Hjorth-Jensen, Morten. Many-body methods and multiscale physics: A nuclear physics story. Seminar at CTCC, University of oslo; 2009-11-04 - 2009-11-04
111. Hjorth-Jensen, Morten. School on Nuclear Physics at the University of Oslo. 15 lectures in total. Nuclear Physics School; 2009-08-10 - 2009-08-14
112. Hjorth-Jensen, Morten. Shell structure around 100Sn. Gordon conference:Frontiers Of Nuclear Structure Through Spectroscopy And Reactions; 2009-06-21 - 2009-06-26
113. Hjorth-Jensen, Morten. Shell-model interactions around 100Sn. American Physical Society April meeting; 2009-05-01 - 2009-05-05
114. Hjorth-Jensen, Morten. Structure of very neutron-rich nuclei and some key questions in nuclear structure theory. HRIBF, Upgrade for the FRIB Era An HRIBF Users Workshop; 2009-11-13 - 2009-11-14
115. Hjorth-Jensen, Morten. Effective interactions and convergence criteria for configuration interaction methods. Effective Field Theories and the Many-Body Problem; 2009-03-23 - 2009-06-05
116. Hjorth-Jensen, Morten. CENS, a computational environment for nuclear structure. April Meeting of the American Physical Society; 2008-04-11 - 2008-04-15
117. Hjorth-Jensen, Morten. Cens lecture 1: Effective interactions for the nuclear shell model. Lecture series at the University of Padova and Legnaro National Laboratory, Padova Italy; 2008-07-15 - 2008-07-18

118. Hjorth-Jensen, Morten. Cens lecture 2: Nuclear structure studies. Lecture series at the University of Padova and Legnaro national Laboratory, Padova, Italy; 2008-07-15 - 2008-07-18
119. Hjorth-Jensen, Morten. Cens lecture 3, challenges for nuclear structure studies. Lecture series at the University of Padova and Legnaro national Laboratory, Padova, Italy; 2008-07-15 - 2008-07-18
120. Hjorth-Jensen, Morten. Computers in Science Education. Guest lecture at Michigan State University; 2008-03-30 - 2008-03-30
121. Hjorth-Jensen, Morten. Computers in Science Education. Forelesning ved UniK, Kjeller; 2008-10-23 - 2008-10-23
122. Hjorth-Jensen, Morten. Computers in Science education, a new way to teach science?. eNORIA: Workshop on eScience in Higher Education; 2008-10-07 - 2008-10-07
123. Hjorth-Jensen, Morten. From nuclear forces to the nuclear many-body problem. Carnegie 2008 Conference NUCLEAR STRUCTURE AT THE EXTREMES; 2008-05-08 - 2008-05-10
124. Hjorth-Jensen, Morten. From stable to weakly bound nuclei. Lectures series at Lund University; 2008-05-04 - 2008-05-07
125. Hjorth-Jensen, Morten. From the nucleon-nucleon interaction to effective interactions for the nuclear shell model. Lectures series at Lund University; 2008-05-04 - 2008-05-07
126. Hjorth-Jensen, Morten. Nuclear many-body methods, shell model and many-body perturbation theory. Lectures series at Lund University; 2008-05-04 - 2008-05-07
127. Hjorth-Jensen, Morten. Trends in Nuclear Structure Theory. Workshop at the University of Lund; 2008-05-07 - 2008-05-07
128. Hjorth-Jensen, Morten. Trends in Nuclear Structure Theory. Physics Division Seminar; 2008-04-17 - 2008-04-17
129. Hjorth-Jensen, Morten. Trends in nuclear structure theory. Lecture series at the University of Padova and Legnaro National Laboratory, Padova Italy; 2008-07-16 - 2008-07-16
130. Hjorth-Jensen, Morten; Langtangen, Hans Petter; Malthe-Sørenssen, Anders; Mørken, Knut Martin; Vistnes, Arnt Inge. Computers in Science Education, a new way to teach physics and mathematics?. April Meeting of the American Physical Society; 2008-04-11 - 2008-04-15
131. Hjorth-Jensen, Morten; Mørken, Knut Martin. Computers in Science Education A New Way to Teach Science?. "I POSE OG SEKK" - Kvalitet i både forskning og utdanning. Er det mulig?; 2008-11-12 - 2008-11-13

132. Hjorth-Jensen, Morten; Mørken, Knut Martin. Computers in Science Education A New Way to Teach Science?. Møte i Nasjonalt råd for teknologisk utdanning; 2008-11-11 - 2008-11-11
133. Hjorth-Jensen, Morten. Challenges for nuclear many-body theories. CORRELATIONS IN NUCLEI: BEYOND-MEAN-FIELD AND SHELL-MODEL APPROACHES; 2007-06-04 - 2007-06-08
134. Hjorth-Jensen, Morten. Computeres in Science Education, a new way to teach science?. Institute seminar; 2007-05-15 - 2007-05-15
135. Hjorth-Jensen, Morten. Computers in Science Education, a new way to teach science?. EUPEN's 9th General Forum - EGF2007; 2007-09-06 - 2007-09-08
136. Hjorth-Jensen, Morten. Computers in Science Education: realfagsundervisning på en ny måte?. Pedagogisk modul for MN-fak; 2007-04-11 - 2007-04-11
137. Hjorth-Jensen, Morten. Coupled Cluster theories: from stable to weakly bound nuclei. CORRELATIONS IN NUCLEI: BEYOND-MEAN-FIELD AND SHELL-MODEL APPROACHES; 2007-06-04 - 2007-06-08
138. Hjorth-Jensen, Morten. Examples from the physical sciences and sociology. eScience Winther School 2007; 2007-01-28 - 2007-02-02
139. Hjorth-Jensen, Morten. How to Integrate Parallel Computing in Science Education?. High-Performance and Parallel Computing; 2007-10-24 - 2007-10-24
140. Hjorth-Jensen, Morten. Introduction to Monte Carlo methods and applications in the physical sciences. eScience Winther School 2007; 2007-01-28 - 2007-02-02
141. Hjorth-Jensen, Morten. Lecture 1: Models for the nuclear interactions. Lectures in Nuclear Physics, From basic nuclear interactions to nuclear structure; 2007-02-19 - 2007-02-19
142. Hjorth-Jensen, Morten. Lecture 1: Models for the nuclear interactions. ISOLDE Spring School in Nuclear Theory; 2007-05-21 - 2007-05-26
143. Hjorth-Jensen, Morten. Lecture 1: Models for the nuclear interactions. ECT\* Doctoral Training Programme 2007; 2007-04-16 - 2007-04-16
144. Hjorth-Jensen, Morten. Lecture 2: Renormalization of the nucleon-nucleon interaction. Lectures in Nuclear Physics, From basic nuclear interactions to nuclear structure; 2007-02-20 - 2007-02-20
145. Hjorth-Jensen, Morten. Lecture 2: Renormalization of the nucleon-nucleon interaction. ISOLDE Spring School in Nuclear Theory; 2007-05-21 - 2007-05-26

146. Hjorth-Jensen, Morten. Lecture 2: Renormalization of the nucleon-nucleon interaction. ECT\* Doctoral Training Programme 2007; 2007-04-17 - 2007-04-17
147. Hjorth-Jensen, Morten. Lecture 3: Many-body methods for nuclear structure. Lectures in Nuclear Physics, From basic nuclear interactions to nuclear structure; 2007-02-21 - 2007-02-21
148. Hjorth-Jensen, Morten. Lecture 3: Many-body methods for nuclear structure. ISOLDE Spring School in Nuclear Theory; 2007-05-21 - 2007-05-26
149. Hjorth-Jensen, Morten. Lecture 3: Many-body methods for nuclear structure. ECT\* Doctoral Training Programme 2007; 2007-04-18 - 2007-04-18
150. Hjorth-Jensen, Morten. Lecture 4: Effective interactions for various mass areas. Lectures in Nuclear Physics, From basic nuclear interactions to nuclear structure; 2007-02-22 - 2007-02-22
151. Hjorth-Jensen, Morten. Lecture 4: Effective interactions for various mass areas. ISOLDE Spring School in Nuclear Theory; 2007-05-21 - 2007-05-26
152. Hjorth-Jensen, Morten. Lecture 4: Effective interactions for various mass areas. ECT\* Doctoral Training Programme 2007; 2007-04-19 - 2007-04-19
153. Hjorth-Jensen, Morten. Lecture 5: From stable to weakly bound nuclei. Lectures in Nuclear Physics, From basic nuclear interactions to nuclear structure; 2007-02-23 - 2007-02-23
154. Hjorth-Jensen, Morten. Lecture 5: From stable to weakly bound nuclei. ECT\* Doctoral Training Programme 2007; 2007-04-20 - 2007-04-20
155. Hjorth-Jensen, Morten. Random numbers, Markov chains, Diffusion and the Metropolis algorithm. eScience Winther School 2007; 2007-01-28 - 2007-02-02
156. Hjorth-Jensen, Morten. Trends in Nuclear Theory. SVENSKT KÄRNFYSIKERMÖTE XXVII, 13-14 NOVEMBER, 2007; 2007-11-13 - 2007-11-14
157. Hjorth-Jensen, Morten. Two and three-body correlations in nuclei. CORRELATIONS IN NUCLEI: BEYOND-MEAN-FIELD AND SHELL-MODEL APPROACHES; 2007-06-04 - 2007-06-08
158. Hjorth-Jensen, Morten; Dean, David J.; Hagen, Gaute; Papenbrock, Thomas. Complex Coupled-cluster Approach to an Ab-initio Description of Open Quantum Systems. Recent progress in many-body theories 14; 2007-07-16 - 2007-07-20
159. Hjorth-Jensen, Morten; Jansen, Gustav. CENS: computational environment for nuclear structure. Many-body physics workshop; 2007-12-05 - 2007-12-07

160. Hjorth-Jensen, Morten; Kvaal, Simen. Similarity Transformations, Flow Equations and Many-Body Perturbation Theory: Role of Many-Body Forces. Many-body physics workshop; 2007-12-05 - 2007-12-07
161. Hjorth-Jensen, Morten; Mørken, Knut Martin. A unified renewal of mathematics and science education. HPCIA07 (opening of new supercomputer i Tromsø); 2007-12-12 - 2007-12-13
162. Hjorth-Jensen, Morten; Mørken, Knut Martin. Computers in Science Education, realfag på en ny måte?. Realfag – nøkkelen til fremtidens kunnskapssamfunn; 2007-03-23 - 2007-03-23
163. Hjorth-Jensen, Morten; Mørken, Knut Martin. Computers in Science Education: Realfagsundervisning på en ny måte?. Presentasjon for Abelia og NHO; 2007-08-14 - 2007-08-14
164. Kartamyshev, Maxim; Hjorth-Jensen, Morten; Engeland, Torgeir; Osnes, Eivind. Three-body effective interactions in nuclear structure studies. Many-body methods for 21st century; 2007-10-26 - 2007-10-30
165. Kartamyshev, Maxim; Hjorth-Jensen, Morten; Engeland, Torgeir; Osnes, Eivind. Three-body interactions in nuclear structure studies. Norwegian Physical Society Subatomic and Astrophysics Division Annual Meeting 2007; 2007-01-04 - 2007-01-06
166. Kartamyshev, Maxim; Hjorth-Jensen, Morten; Engeland, Torgeir; Osnes, Eivind. Realistic three-nucleon effective interactions in nuclear structure studies. RPMBT14; 2007-07-16 - 2007-07-20
167. Kartamyshev, Maxim; Hjorth-Jensen, Morten; Engeland, Torgeir; Osnes, Eivind. Three-body effective interactions in nuclear structure studies. Workshp at ORNL; 2007-12-05 - 2007-12-07
168. Hjorth-Jensen, Morten. Basis, model space and wave functions for the shell model. Nuclear shell model applications; 2006-02-13 - 2006-02-17
169. Hjorth-Jensen, Morten. Effective Interactions for Weakly Bound Systems and Shell Model Studies. 1st Southern Mediterranean Summer Workshop on Subatomic Physics; 2006-05-29 - 2006-06-03
170. Hjorth-Jensen, Morten. Experimental and theoretical challenges for nuclei in the mass region  $A=56$  to  $A=78$ . Nuclear Physics seminar; 2006-09-01 - 2006-09-01
171. Hjorth-Jensen, Morten. From nucleon-nucleon interactions to effective interactions. Nuclear shell model applications; 2006-02-13 - 2006-02-17
172. Hjorth-Jensen, Morten. Gamma and Beta decay. Nuclear shell model applications; 2006-02-13 - 2006-02-17

173. Hjorth-Jensen, Morten. Green's Function Approach to Effective Interactions for Nuclear Systems. 1st Southern Mediterranean Summer Workshop on Subatomic Physics; 2006-05-29 - 2006-06-03
174. Hjorth-Jensen, Morten. Hva er lys?. Utopia; 2006-01-16 - 2006-01-16
175. Hjorth-Jensen, Morten. Methods for studying weakly bound and unbound nuclei. Seminar; 2006-12-01 - 2006-12-01
176. Hjorth-Jensen, Morten. Nuclear Physics in Norway 2006-2011. OECD Global Science working group on Nuclear Physics; 2006-03-06 - 2006-03-07
177. Hjorth-Jensen, Morten. Nucleon-Nucleon interactions, from QCD to mesonic degrees of freedom. Nuclear Shell Model applications; 2006-02-13 - 2006-02-17
178. Hjorth-Jensen, Morten. Spectroscopic factors. Nuclear shell model applications; 2006-02-13 - 2006-02-17
179. Hagen, Gaute; Dean, David J.; Hjorth-Jensen, Morten; Papenbrock, Thomas. Building nuclei from the ground up. International Symposium on Nuclear Astrophysics - Nuclei in the Cosmos - IX; 2006-06-25 - 2006-06-30
180. Hagen, Gaute; Dean, David J.; Hjorth-Jensen, Morten; Papenbrock, Thomas. Coupled-cluster calculation of the  $3\text{-}^5\text{He}$  isotopes with Gamow-Hartree-Fock basis. Nuclei in the Cosmos 9; 2006-06-25 - 2006-06-30
181. Kartamychiev, Maxim; Hjorth-Jensen, Morten; Engeland, Torgeir; Osnes, Eivind. Realistic Three-Nucleon Effective Interaction from the Folded-Diagram Theory. Nuclei in the Cosmos - IX; 2006-06-25 - 2006-06-30
182. Kartamychiev, Maxim; Hjorth-Jensen, Morten; Engeland, Torgeir; Osnes, Eivind. Realistic Three-Nucleon Effective Interaction from the Folded-Diagram Theory. DNP 06; 2006-10-25 - 2006-10-28
183. Hjorth-Jensen, Morten. Ab Initio nuclear structure methods: Monte Carlo methods and no-core shell model approaches. ISOLDE Physics Group Seminar; 2005-03-14 - 2005-03-14
184. Hjorth-Jensen, Morten. CHALLENGES FOR NUCLEAR STRUCTURE: FROM STABLE TO WEAKLY BOUND NUCLEI. International Symposium on Correlation Dynamics in Nuclei; 2005-01-31 - 2005-02-05
185. Hjorth-Jensen, Morten. Computational Environment for Nuclear Structure: CENS. Lecture Series at Michigan State University; 2005-04-11 - 2005-04-12
186. Hjorth-Jensen, Morten. Computers in Science Education. CMA workshop on 'Computers, computations and science education'; 2005-09-30 - 2005-09-30



187. Hjorth-Jensen, Morten. From the nucleon-nucleon interaction to a renormalized interaction for nuclear systems. Lecture series at Michigan State University; 2005-04-07 - 2005-04-08
188. Hjorth-Jensen, Morten. High-Performance Computing in Physics. High-Performance Computing in Physics workshop; 2005-11-04 - 2005-11-04
189. Hjorth-Jensen, Morten. Kvalitetsreformen, nye Muligheter for Samarbeid mellom Universitet og Næringsliv. Industridag, rom for muligheter; 2005-09-16 - 2005-09-16
190. Hjorth-Jensen, Morten. Large Scale Shell Model and Coupled Cluster Calculations. Microscopic Approaches to Many-Body Theories; 2005-08-30 - 2005-09-03
191. Hjorth-Jensen, Morten. Shell model approaches. 2nd VISTARS Workshop in Russbach; 2005-03-05 - 2005-03-12
192. Hjorth-Jensen, Morten. Variational and Diffusion Monte Carlo Calculations for Bose-Einstein condensation. Nonlinear PDE for Bose-Einstein condensed gases; 2005-11-11 - 2005-11-11
193. Honma, Micho; Otsuka, Takahuro; Mizusaki, T.; Hjorth-Jensen, Morten; Brown, Boyd Alexander. Effective Interactions for nuclei with  $A=50-100$  and Gamow-Teller properties. International Symposium on Correlation Dynamics in Nuclei; 2005-01-31 - 2005-02-04
194. Dean, David J.; Hjorth-Jensen, Morten; Kowalski, Karol; Piecuch, Piotr; Wloch, Marta. Coupled Cluster Theory for Nuclei. International Workshop on Condensed Matter Theories CMT28; 2004-09-27 - 2004-10-02
195. Hjorth-Jensen, Morten. CENS: A computational Environment for Nuclear Structure. Isolde Lecture series; 2004-11-11 - 2005-11-25
196. Hjorth-Jensen, Morten. Challenges for Nuclear Structure; from Stable to Weakly Bound Nuclei. Theory seminar University of Tuebingen; 2004-12-07 - 2004-12-07
197. Hjorth-Jensen, Morten. Challenges for Nuclear Structure Studies. Isolde workshop 2004; 2004-12-13 - 2004-12-15
198. Hjorth-Jensen, Morten. Coupled Cluster approaches to nuclei, ground state and excited states. 8th INTERNATIONAL SPRING SEMINAR ON NUCLEAR PHYSICS; 2004-05-23 - 2004-05-27
199. Hjorth-Jensen, Morten. Effective Interactions for the Nuclear many-body problem. Workshop on Nuclear structure Studies for Light Nuclei; 2004-07-04 - 2004-07-08

200. Hjorth-Jensen, Morten. Fra Supernovaer og nøytronstjerner til nøytronrike kjerner; en reise fra giga/megameter til femtometer skala. Foredrag ved Norsk Astronomisk selskap; 2004-01-14 - 2004-01-14
201. Hjorth-Jensen, Morten. From non-linear PDEs to Monte-Carlo methods, a biased tour of open problems in computational quantum mechanics. CMA workshop on Mathematical Aspects of the Schroedinger Equation; 2004-06-14 - 2004-06-14
202. Hjorth-Jensen, Morten. Mathematics for Neutron Stars. Foredrag ved CMA; 2004-05-11 - 2004-05-11
203. Hjorth-Jensen, Morten. Nuclear Many-Body Approaches and Experiment; workshop summary. Insitute of Nuclear Theory workshop series; 2004-10-04 - 2004-10-08
204. Hjorth-Jensen, Morten. Nuclear structure and the coupled-cluster method. International Nuclear Physics Conference, INPC2004; 2004-06-27 - 2004-07-02
205. Hjorth-Jensen, Morten. Nuclear Structure for Radioactive Ion Beam Physic. ISOLDE PHYSICS GROUP SEMINAR SERIES; 2004-09-21 - 2004-09-21
206. Hjorth-Jensen, Morten. Selected Nuclear Structure Topics. Workshop on Nuclear structure Studies for Light Nuclei; 2004-07-04 - 2004-07-08
207. Hjorth-Jensen, Morten. Shell-Model Approaches and Effective Interactions for Weakly Bound Systems. Insitute Seminar Max-Planck Institut fuer Kern Chemie; 2004-12-06 - 2004-12-06
208. Hjorth-Jensen, Morten. Økt innsikt og læring ved hjelp av IKT i Fysikk. Det Umuliges kunst? IKT i utdanning - kvalitetetsreformen i praksis; 2004-04-28 - 2004-04-28
209. Vistnes, Arnt Inge; Hjorth-Jensen, Morten. Numerical methods as an integrated part of physics education. 9th Workshop on Multimedia in Physics Teaching and Learning; 2004-09-09 - 2004-09-11
210. Ovrum, Eirik; Leinaas, Jon Magne; Hjorth-Jensen, Morten. Quantum Computation of Energy Levels in a Spin Chain: A Detailed Simulation for a Small no of Spins. Gordon Research Conference; 2004-02-22 - 2004-02-28
211. Hjorth-Jensen, Morten. Bruk av numeriske verktøy i undervisningen. Pedagogisk modul i 'Undervisning i matematiske og naturvitenskapelige fag'; 2003-05-23 - 2003-05-23
212. Hjorth-Jensen, Morten. Challenges for shell-model studies and emergent phenomena in nuclei. APS april meeting; 2003-04-04 - 2003-04-07
213. Hjorth-Jensen, Morten. Computational quantum mechanics. CMA seminar; 2003-05-06 - 2003-05-06

214. Hjorth-Jensen, Morten. Effective interactions for weakly bound systems. DNP fall meeting; 2003-10-29 - 2003-11-01
215. Hjorth-Jensen, Morten. Effective interactions for weakly bound systems. Mini/workshop on nuclear many/body physics; 2003-04-02 - 2003-04-02
216. Hjorth-Jensen, Morten. Effective interactions from Greens functions. Recent advances in the nuclear shell model; 2003-06-29 - 2003-07-12
217. Hjorth-Jensen, Morten. Many-body methods and the nuclear shell-model. 10th Nordic Nuclear Physics Meeting; 2003-05-12 - 2003-05-16
218. Hjorth-Jensen, Morten. Neutron stars and challenges for RIA physics. RIA theory working group workshop; 2003-11-02 - 2003-11-03
219. Hjorth-Jensen, Morten. Pairing correlations in nuclear systems. COMEX1; 2003-06-10 - 2003-06-13
220. Hjorth-Jensen, Morten. Pairing correlations in nuclear systems. Foredrag ved Oak Ridge National lab; 2003-08-12 - 2003-08-12
221. Hjorth-Jensen, Morten. Complex scaling and effective interactions for weakly bound nuclei. ; 2002
222. Hjorth-Jensen, Morten. Effective interactions and the nuclear shell model. Continuum aspects of the nuclear shell model; 2002-06-03
223. Hjorth-Jensen, Morten. Effective interactions for the nuclear shell model. Advanced computational methods for solving the nuclear many-body problem; 2002-03-12
224. Hjorth-Jensen, Morten. Effective interactions of the nuclear shell model. ; 2002
225. Hjorth-Jensen, Morten. Pairing correlations in nuclear systems. ; 2002
226. Hjorth-Jensen, Morten. Pairing correlations in nuclear systems, from neutron stars to finite nuclei. ; 2002
227. Hjorth-Jensen, Morten. Theory of effective interactions. ; 2002
228. Hjorth-Jensen, Morten. Brukerinformasjon om tungregneberegninger. Møte mellom Usit of Hewlett Packard; 2001-02-14
229. Hjorth-Jensen, Morten. Effective interactions for finite nuclei. Nato advanced workshop on the nuclear many-body problem; 2001-06-02
230. Hjorth-Jensen, Morten. Effective Interactions for the nuclear shell model. ISOL01; 2001-03-11

231. Hjorth-Jensen, Morten. Effective interactions for the nuclear shell-model. International workshop on continuum aspects of the nuclear shell model; 2001-09-24
232. Hjorth-Jensen, Morten. From finite nuclei to neutron stars and dense matter. Annual Meeting of the Norwegian physics society; 2001-06-14
233. Hjorth-Jensen, Morten. Kvantedatamaskinen, den neste teknologiske revolusjonen?. Faglig pedagogisk dag universitetet i oslo; 2001-01-03
234. Hjorth-Jensen, Morten. Nye trender i kvantefysikk. Fysikk kurs for gymnaslærere; 2001-11-27
235. Hjorth-Jensen, Morten. Pairing correlations in nuclear systems. ; 2001
236. Hjorth-Jensen, Morten. Pairing correlations in nuclear systems, from neutrons starts to finite nuclei. Yukawa International seminar 2001, Physics of unstable nuclei; 2001-11-05
237. Hjorth-Jensen, Morten. Phases of dense matter in neutron stars. Graduate programme in nuclear physics, Copenhagen-Giessen; 2001-01-25
238. Hjorth-Jensen, Morten, Effective interactions for medium heavy nuclei. 5th international conference on radioactive nuclear beams; 2000-04-03
239. Hjorth-Jensen, Morten. Effective interactions for finite nuclei. Physics with Radioactive Beams; 2000-11-27
240. Hjorth-Jensen, Morten. Effective interactions for nuclear systems. Nuclear structure for the 21st century; 2000-10-15
241. Hjorth-Jensen, Morten. Kvantedatamaskinen, den neste teknologiske revolusjonen?. IAESTE næringslivsdager; 2000-09-13
242. Hjorth-Jensen, Morten. Nuclear structure from finite nuclei to neutron stars. Twelfth summer school in nuclear physics; 2000-07-03
243. Hjorth-Jensen, Morten. Phases of dense matter in neutron stars. EOS2000; 2000-02-20
244. Dean, David J.; Hjorth-Jensen, Morten; Liotta, Roberto; Zuker, A.P.. Advances in shell model studies in nuclei far from stability. Advances in shell model studies in nuclei far from stability; 1999-01-01
245. Hjorth-Jensen, Morten. Effective interactions for finite nuclei. Advances in nuclear many-body theory; 1999-08-01
246. Hjorth-Jensen, Morten. Faseoverganger i endelige systemer?. ; 1999
247. Hjorth-Jensen, Morten. From finite nuclei to neutron stars. NFR meeting on Cern related Physics; 1999-10-01

248. Hjorth-Jensen, Morten. Pairing correlations, from finite nuclei to infinite matter. Recent progress in Many-Body theories 10; 1999-09-10
249. Hjorth-Jensen, Morten. Phases of dense matter in neutron stars. ; 1999
250. Hjorth-Jensen, Morten. Properties of Pairing Correlations in Infinite Nuclear Matter. Condensed Matter theories 21; 1998-01-01
251. Hjorth-Jensen, Morten. Realistic Effective Interactions and Large-Scale Nuclear Structure Calculation. Highlights of modern nuclear structure; 1998-05-01
252. Hjorth-Jensen, Morten. Nuclear structure from  $N \approx Z$  to  $N \gg Z$ . Highlights of modern nuclear structure; 1998-05-01
253. Engeland, Torgeir; Hjorth-Jensen, Morten; Holt, Anne; Osnes, Eivind. Extensive Shell-Model calculations in the tin isotopes. workshop on double-beta decay; 1996-01-01
254. Engeland, Torgeir; Hjorth-Jensen, Morten; Holt, Anne; Osnes, Eivind. Realistic Large basis shell-model calculation in the low-mass tin isotopes. symposium on frontiers of nuclear structure physics; 1996-01-01
255. Hjorth-Jensen, Morten. Conference: International Conference on Realistic Nuclear Structure, to Celebrate the 60th Birthday of TTS (TOM) Kuo Location: SUNY Stony Brook, phys dept, STONY BROOK, NY, May 28-30, 1992
256. Hjorth-Jensen, Morten, Microscopic nuclear-structure calculations with modern meson-exchange potentials, 3rd international spring seminar on nuclear physics, Ischia, Italy, May 21-25, 1990

## Courses, study programs and educational initiatives

I am strongly involved in teaching at all levels. I have been heading the bachelor program Physics, Astronomy and Meteorology ( FAM ) in the period 2002-2011. I am also strongly involved in the project Computing in Science Education. Furthermore, with European and American colleagues, we have established the recent successful Nuclear Talent initiative.

Since 1999 I have established an activity in computational physics at the Department of Physics at the University of Oslo. I have also started from scratch and developed several courses on computational physics, machine learning and many-body physics. This activity was recognized with the Excellence in Teaching award from the University of Oslo in 2015. During the last twenty years I have guided more than 100 graduate students (Master of Science and PhD levels) and post-doctoral fellows.

With colleagues at the University of Oslo, I have been strongly involved in the development of a totally new teaching philosophy which merges computation

with the traditional science and mathematics curriculum . This project is called [Computing in Science Education](#) and has received considerable support from the University of Oslo and the Norwegian Ministry of research and education. It received the University of Oslo award for excellence in teaching in 2011 and the NOKUT award in 2012.

With colleagues from the USA and other European countries, we started in 2010 the Nuclear Talent initiative: "<http://www.nucleartalent.org>", where we aim at providing an advanced and comprehensive training to graduate students and young researchers in low-energy nuclear theory. The network aims at developing a broad curriculum that will provide the platform for a cutting-edge theory for understanding nuclei and nuclear reactions. Over the years I have taught and organized several such intensive courses (see list below).

I initiated in 2015 and chair the new [Master of Science program on Computational Science at the University of Oslo](#). This is a new and multi-disciplinary program across several disciplines at the College of Natural Science of the University of Oslo.

I teach or have taught recently the following courses at the University of Oslo and Michigan State University:

- [FYS3150/4150 Computational Physics I](#), Fall semester, senior undergraduate level (Oslo)
- [FYS4411 Computational Physics II: Quantum mechanical systems](#), graduate level, Spring semester (Oslo)
- [FYS4480 Quantum mechanics for many-particle systems](#), graduate level, Fall semester (Oslo)
- [PHY981 Nuclear Structure](#), graduate level, Spring semester (MSU)
- [PHY480/905 Computational Physics](#) (MSU), undergraduate and graduate level, Spring semester
- [FYS5419 Quantum Computing](#)
- [FYS5429 Advanced Machine Learning for the Physical Sciences](#)

From the fall of 2018 I have developed and teach the new course on **Applied Data analysis and Machine Learning** at the University of Oslo. This course is a compulsory course that is part of the new interdisciplinary Master of Science program [Computational Science](#). The link to the course is

- [FYS-MAT3155/4155 Data Analysis and Machine Learning](#), senior undergraduate and graduate level, Fall semester (Oslo)
- [PHY321 Classical Mechanics](#), MSU, undergraduate course, spring semester. First time spring 2020.

I have also taught introductory quantum physics, FYS2140, 2000-2004, Statistical Mechanics, FYS4130, 1990-1994 and I have developed an advanced course on [FYS-KJM4480 Quantum mechanics for many-particle systems](#), 2009-2014, all at the at the University of Oslo, Norway. At Michigan State Univeristy I have also taught an advanced course in Nuclear Structure Physics PHYS981 Nuclear Structure, graduate level, Spring semester, 2013-2016. In addition, with Scott Bogner at Michigan State University, we taught a specialized course on Nuclear Force, PHY989, during the fall semester of 2018.

### **Present PhD students.**

1. [Øyvind Sigmundsson Schøyen](#), University of Oslo, started fall 2019. Thesis defense spring/summer 2024. Research topic: Time-dependent many-body theory and quantum computing
2. [Stian Bilek](#), University of Oslo, started fall 2020. Quantum Computing and Machine Learning
3. [Jonas Boym Flaten](#), University of Oslo, started fall 2020. Quantum Many-Body theories and quantum computing
4. [Oskar Leinonen](#), University of Oslo, started fall 2022. Quantum computing
5. [Danny Jammaa](#), Michigan State University, started 2020, co-supervisor. Research topic: Quantum Computing and Machine Learning.
6. [Patrick Cook](#), Michigan State University, started 2020, co-supervisor. Research topic: Quantum Computing and Machine Learning.
7. [Aymeric McRae](#), Michigan State University, started 2020, co-supervisor. Research topic: Quantum Computing and Machine Learning.
8. [Nicholas Cariello](#), Michigan State University, started 2020, co-supervisor. Research topic: Quantum Computing and Machine Learning.
9. [Paulina Souza Tedesco](#), University of Oslo, started 2020, defends thesis fall 2024, Machine Learning and Meteorology, co-supervisor
10. [Katarzyna Michałowska](#), University of Oslo, started 2021, defends thesis fall 2024, Machine Learning, co-supervisor
11. Einar Aurbakken, University of Oslo, started 2020, defends thesis fall 2024, Quantum Chemistry and Many-body Physics, co-supervisor
12. [Andreas H. Mjøs](#), started fall 2021. Thesis topic: Bayesian statistics applied to nuclear physics experiments, co-supervisor
13. [Erlend Lima](#), started fall 2021. Thesis topic: Bayesian statistics applied to nuclear physics experiments, co-supervisor

14. [Christina Kappatou](#), started fall 2022. Thesis topic: Geoscience and Machine Learning, co-supervisor
15. [Alf Johan Skarpeid](#), started fall 2023, Thesis topic: Experimental condensed matter physics, co-supervisor
16. [Ruben Pariente Bassa](#), started fall 2023, co-supervisor. Research topic: Quantum Computing.
17. [Sunniva Meltzer](#), started fall 2023, co-supervisor. Research topic: Machine learning.

#### **Former PhD students and their present positions.**

1. [Jane Kim](#), Michigan State University, started fall 2018. Defended thesis July 20, 2023. Research topic: Machine Learning and the Nuclear Many-body problem. Now post-doctoral research fellow at University of Ohio, Athens, USA
2. [Julie Butler](#), Michigan State University, started fall 2018. Defended thesis July 18, 2023. Research topic: Machine Learning and the Nuclear Many-body problem. Now assistant professor at Mt Union university, Ackron, Ohio
3. [Benjamin Hall](#), Michigan State University, started 2017. Defended thesis August 25, 2022. Research topic: Quantum Computing and the Nuclear Many-body problem. Present job: scientist and researcher at [Super.Tech](#)
4. John Mark Aiken, University of Oslo, started 2017, defended thesis September 2020, co-supervisor. Research Topic: Machine Learning applied to Physics Education Research. Now post-doctoral fellow at the University of Oslo and scientist at Expert Analytics
5. [Justin Lietz](#) (PhD MSU, June 2019), permanent position as scientist at Oak Ridge National Laboratory, Computational Science Division, 2019-2023. Now researcher at NVidia.
6. [Samuel Novario](#) (PhD MSU, February 2018), post-doctoral fellow at Oak Ridge National Laboratory, Physics Division, 2018-2020, post-doctoral fellow at Los Alamos National Laboratory 2020-2023 and now staff scientist at University of Washington. St. Louis since fall 2023.
7. [Fei Yuan](#) (PhD MSU, January 2018), Software engineer at Google
8. [Gustav Baardsen](#) (PhD UiO 2014). From 2015 to 2018, post-doctoral researcher at the Center for Theoretical and Computational Chemistry (CTCC), University of Oslo. Now employed by Varian Medical Systems, Helsinki, Finland.



9. [Simen Kvaal](#) (PhD UiO 2009), researcher, Department of Chemistry, University of Oslo. Recipient of an ERC starting grant
10. [Gustav Jansen](#) (PhD UiO 2012), now permanent position as scientist at the Computational Science Division of Oak Ridge National Laboratory
11. [Torquil MacDonald Sørensen](#) (PhD UiO 2012), post-doctoral fellow at the Department of Mathematics, UiO
12. [Jon Kerr Nilsen](#) (PhD UiO 2010), senior engineer at the University of Oslo center for information technologies (co-supervisor)
13. [Marius Lysebo](#) (PhD UiO 2010), Professor at Oslo University College, (co-supervisor)
14. [Elise Bergli](#) (PhD UiO 2010), teacher Ås high school, Norway and Assistant Professor at the Norwegian University of Life Sciences.
15. [Eirik Ovrum](#) (PhD UiO 2007), now Associate Professor at the University College of Southeast of Norway
16. [Gaute Hagen](#) (PhD UiB and UiO 2005), now permanent position as scientist at the Physics Division of Oak Ridge National Laboratory. Recipient of the Department of Energy Early career award

**Post-doctoral fellows and their present positions.**

1. [Andreas Ekstrøm](#) (UiO and MSU 2010-2014), Professor at Chalmers Technological University in Gothenburg, Sweden
2. [Øyvind Jensen](#) (UiO 2011), researcher at the [Institute for Energy Technology](#)
3. [Simen Kvaal](#) (UiO 2008-2012), Associate Professor, Department of Chemistry, University of Oslo. Recipient of an ERC starting grant
4. [Elise Bergli](#) (UiO 2010-2011), now teacher at Ås high school, Norway
5. [Solve Selstø](#) (UiO 2008-2010), now Professor at Oslo Metropolitan University
6. [Nicolas Michel](#) (MSU 2013), Professor at Institute of modern physics Lanzhou, China

**Member of Graduate Advisory Committees at Michigan State University.** I am (have been) member or chair person of the following graduate student committees at Michigan State University:

1. Justin Lietz, chair, defended thesis June 2019.
2. Fei Yuan, chair. Defended thesis January 2018.
3. Sam Novario, chair. Defended thesis February 2018.
4. John Bower, chair together with Scott Bogner. Master of Science thesis May 2017.
5. Adam Jones, committee member. Master of Science thesis July 2017.
6. Chris Sullivan, committee member. Defended thesis January 2018.
7. Thomas Redpath, committee member. Defended thesis October 2019.
8. Sean Sweany, committee member, defends thesis fall 2020.
9. Rachel Taverner, committee member. Defended thesis May 2019.
10. Nathan Parzuchowski, committee member. Defended thesis April 2017.
11. Titus Morris, committee member. Defended thesis May 2016
12. Kenneth Whitmore, committee member. Defended thesis June 2016
13. Alex Dombos, committee member. Defended thesis May 2018.
14. Josh Bradt, committee member, Defended thesis July 2017.
15. Charles Loelius, committee member, Defended thesis May 2017.
16. Safwan Shanab, committee member. Defended thesis January 2020.
17. Hao Lin, committee member. Defended thesis July 2020.
18. Mao Xingze, committee member. Defended thesis July 2020.
19. Amy Lovell, committee member. Defended thesis January 24 2018.
20. Debra Richman, committee member, defends thesis December 2020.
21. Roy Ready, committee member. Defended thesis May 2021.
22. Nathan Watwood, committee member. Defended thesis February 2021.
23. Ben Hall, chair, thesis defense August 2022
24. Udiani Omokuyani, committee member
25. Julie Butler, chair, defended thesis July 2023

26. Jane Kim, chair, defended thesis July 2023
27. Khan Zhu, committee member.
28. Byeon Heejun, committee member. Defended thesis December 2020.
29. Golubev Timofey, committee member. Defended thesis December 2020.
30. Hermansen, Kirby, committee member
31. Watkins Jacob, , committee member
32. Hill Matthew Steven, committee member
33. Larose, Ryan, committee member, defended thesis May 2022

**Present Master of Science Students.**

1. Daniel Haass Beccatini Lima (2022-2024)
2. Håkon Kvernmoen (2022-2024)
3. Keran Chen (2022-2024)
4. Simen Løken (2022-2024)
5. Henrik Modahl Breitenstein (2022-2024)
6. Odin Johansen (2023-2025)
7. Jonny Igeh Aarstad (2023-2025)
8. Yevgehnii Volkov (2023-2025)
9. Ida Madsen (2023-2025), co-supervisor
10. Luis Roberto Jiminez Arteta (2023-2025), co-supervisor
11. Joseph Ivan Panana Vera (2023-2025), co-supervisor

**Former Master of Science Students.**

1. Linus Ekstrøm (UiO 2020-2022)
2. Philip Karim Niane Sørli (UiO 2020-2022)
3. Karl Henrik Fredly (UiO 2020-2022)
4. Adrian Kleven (UiO 2020-2022), co-supervisor
5. Kaspara Gåsvær (UiO 2020-2022), co-supervisor
6. Maria Horgen (UiO 2020-2022), co-supervisor

7. Jens Due Bratten, University of Oslo, (2019-2021)
8. Kristian Wold, University of Oslo, (2019-2021)
9. Martin Krokan Hovden, University of Oslo, (2019-2021)
10. Johan Nereng, University of Oslo, (2019-2021)
11. Oliver Hebnes, University of Oslo, (2019-2021), co-supervisor
12. Heine Aabø, University of Oslo, (2018-2020)
13. Stian Bilek, University of Oslo, (2018-2020)
14. Thomas Sjøstad, University of Oslo, (2018-2020), co-supervisor
15. Halvard Sutterud, University of Oslo, (2018-2020), co-supervisor
16. Marius Holm, University of Oslo, (2018-2020), co-supervisor
17. Geir Utvik, University of Oslo, (2018-2020)
18. Vebjørn Gilberg, University of Oslo, (2017-2020), co-supervisor
19. Kari Eriksen, University of Oslo, (2017-2020)
20. Robert Solli, University of Oslo, (2017-2019)
21. Andreas Lefdalsnes, University of Oslo, (2017-2019)
22. Joseph Knutson, University of Oslo, (2017-2019)
23. Bendik Samseth, University of Oslo, (2017-2019)
24. Even Nordhagen, University of Oslo, (2017-2019)
25. Øyvind Schøyen Sigmundson, University of Oslo, (2017-2019)
26. Sebastian Gregorius Winther-Larsen, University of Oslo, (2017-2019)
27. Giovanni Pederiva, University of Oslo, (2016-2018), co-supervisor
28. Anna Gribovskaya, University of Oslo, (2016-2018)
29. Andrei Kucharenka, University of Oslo, (2016-2018)
30. Vilde Moe Flugsrud, University of Oslo, (2016-2018)
31. Alfred Alocias Mariadason, University of Oslo, (2016-2018)
32. Marius Jonsson, University of Oslo, (2016-2018)
33. Hans Mathias Vege Mamen, University of Oslo, (2016-2019), co-supervisor
34. Alexander Fleischer, University of Oslo, (2015-2017)

35. Håkon Emil Kristiansen, University of Oslo, (2015-2017)
36. Morten Ledum, University of Oslo, (2015-2017)
37. Håkon Treider Vikør, University of Oslo, (2015-2017), co-supervisor
38. Jon-Andreas Stende, University of Oslo, (2015-2017), co-supervisor
39. Sean Bruce Sangholt Miller, University of Oslo, (2015-2017)
40. Christian Fleischer, University of Oslo, (2015-2017)
41. John Bower, Michigan State University, (2014-2017)
42. Wilhelm Holmen, University of Oslo (2014-2016)
43. Roger Kjøde, University of Oslo, (2014-2016)
44. Håkon Sebastian Mørk, University of Oslo, (2014-2016)
45. Jonas van den Brink, University of Oslo, (2014-2016), co-supervisor
46. Marte Julie Sætra, University of Oslo, (2014-2016), co-supervisor
47. Audun Skau Hansen, University of Oslo, (2013-2015)
48. Henrik Eiding, University of Oslo, (2012-2014)
49. Svenn-Arne Dragly, University of Oslo, (2012-2014)
50. Milad Hobbi Mobarhan, University of Oslo, (2012-2014)
51. Ole Tobias Norli, University of Oslo, (2012-2014)
52. Filip Sand, University of Oslo, (2012-2014), co-supervisor
53. Emilie Fjørner, University of Oslo, (2012-2014), co-supervisor
54. Jørgen Høgberget, University of Oslo, (2011-2013)
55. Sarah Reimann, University of Oslo, (2011-2013)
56. Karl Leikganger, University of Oslo, (2011-2013)
57. Sigve Bøe Skattum, University of Oslo, (2011-2013)
58. Veronica Berglyd Hansen, University of Oslo, (2010-2012)
59. Camilla Nestande Kirkemo, University of Oslo, (2010-2012), co-supervisor
60. Christoffer Hirth, University of Oslo, (2009-2011)
61. Marte Hoel Jørgensen, University of Oslo, (2009-2011)
62. Yang Min Wang, University of Oslo, (2009-2011)

63. Ivar Nikolaisen, University of Oslo, (2009-2011)
64. Vegard Amundsen, University of Oslo, (2008-2010)
65. Håvard Sandsdalen, University of Oslo, (2008-2010)
66. Lars Eivind Lervåg, University of Oslo, (2008-2010)
67. Magnus Lohne Pedersen, University of Oslo, (2008-2010)
68. Simen Sørby, University of Oslo, (2008-2010), co-supervisor
69. Sigurd Wenner, University of Oslo, (2008-2010), co-supervisor
70. Lene Norderhaug Drøsdal, University of Oslo, (2007-2009)
71. [Islen Vallejo](#), [University of Oslo](#), (2007-2009), works at the Norwegian Institute for Air Research
72. Jacob Kryvi, Norwegian University of Science and Technology, (2007-2009), co-supervisor
73. Rune Albrigtsen, University of Oslo, (2007-2009)
74. Johannes Rekkedal, University of Oslo, (2007-2009)
75. Patrick Merlot, University of Oslo, (2007-2009)
76. Gustav Jansen, University of Oslo, (2006-2008)
77. Ole Petter Harbitz, University of Oslo, (2006-2008)
78. Sutharsan Amurgian, University of Oslo, (2005-2007)
79. Jon Thonstad, University of Oslo, (2005-2007)
80. Espen Flage-Larsen, University of Oslo, (2003-2005)
81. Joachim Berdahl Haga, University of Oslo, (2004-2006)
82. Jon Kerr Nilsen, University of Oslo, (2002-2004)
83. Simen Kvaal, University of Oslo, (2002-2004)
84. Simen Reine Sommerfelt, University of Oslo, (2002-2004)
85. Mateuz Marek Røstad, University of Oslo, (2002-2004)
86. Victoria Popsueva, University of Oslo, (2002-2004)
87. Eivind Brodal, University of Oslo, (2001-2003)
88. Eirik Ovrum, University of Oslo, (2001-2003)
89. Ronny Kjelsberg, Norwegian University of Science and Technology, (2001-2003)

## Selected research grants as PI and co-PI, financed and pending applications

1. 2022-2025 400 kUSD from the Department of Energy, Effective Field Theory and Renormalization Group Studies of Quantum Algorithms, Co-PI with Dean Lee and others, Michigan State university
2. 2023-2025 STREAMLINE Collaboration: Machine Learning for Nuclear Many-Body Systems, 2 MUSD from the Department of Energy, co-PI with Dean Lee and otherd, Michigan State University
3. 2023-2026 600 kUSD from the National Science Foundation for the project Many-Body Theories and Methods for Nuclear Physics, CO-PI with Scott Bogner. Michigan State University.
4. 2020-2022 750 kUSD from the Department of Energy, From Quarks to Stars; A Quantum Computing Approach to the Nuclear Many-Body Problem. PI, grant number DoE-0000248785
5. 2020-2023 600 kUSD from the National Science Foundation for the project From nuclei to neutron stars, CO-PI with Scott Bogner, Grant number PHY-013877.
6. 2016-present Co-PI at the Norwegian center of excellence in Education *Center for Computing in Science Education*, University of Oslo wit annual funding from NOKUT of 5MNOK
7. 2017-2020 600 kUSD from the National Science Foundation for the project From nuclei to neutron stars, CO-PI with Scott Bogner. Grant number PHY-1713901
8. 2014-2017 600 kUSD from the National Science Foundation for the project Computational Nuclear Many-body Physics, CO-PI with Scott Bogner. Grant number PHY-1404159
9. 2010-2015 15 MNOK from the Research Council of Norway, Multi-scale physics on the computer, Collaboration between Universities. Grant number ISP-Fysikk/216699 in Trondheim, Ås, and Oslo on research and education in computational physics
10. 2008-2012 1.5 MNOK for organizing the MSU-UT/ORNL-UiO network on Computational Nuclear Many-Body Theory. Sponsor, SiU, the Norwegian center for internationalization in higher education
11. 2003-2013 Co-PI of the Norwegian Center of Excellence Mathematics for Applications, with annual funding from the Research Council of Norway of 15 MNOK.