

# Publications

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## Publications, books and refereed scientific articles

### Books:

1. Morten Hjorth-Jensen, *Computational Physics, an introduction*, to be published by IOP in 2017.
2. Morten Hjorth-Jensen, *Computational Physics, an advanced course*, to be published by IOP in 2017.
3. Morten Hjorth-Jensen, *Nuclear many-body physics, a computational perspective*, in preparation for Taylor Francis.
4. 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. Morten Hjorth-Jensen, *Understanding the limits of nuclear stability*, Physica Scripta Focus issue on 21st Century Frontiers, in press (2017).
2. Morten Hjorth-Jensen, *Correlations i many-body systems*, *Progress in Particle and Nuclear Physics*, in press (2017).
3. 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).
4. 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).

5. 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).
6. 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*, "in press (2017).
7. Morten Hjorth-Jensen, *Scattering Experiments Tease Out the Strong Force*, *Physics*, 10:72 (2017).
8. 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).
9. 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).
10. 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).
11. 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).
12. 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).
13. 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).
14. Zs. Vajta, M. Stanoiu, D. Sohler, G. R. Jansen, F. Azaiez, Zs. Dombrádi, O. Sorlin, B. A. Brown, M. Bellegruic, 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).

15. 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).
16. 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).
17. 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).
18. N. Tsunoda, K. Takayanagi, M. Hjorth-Jensen and T. Otsuka, *Multi-shell effective interactions*, *Physical Review C*, 89:024313 (2014).
19. G. Baardsen, A. Ekstrom, G. Hagen, and M. Hjorth-Jensen, *Coupled-cluster studies of infinite nuclear matter*, *Physical Review C*, 88:054312 (2013).
20. 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  $\text{Sn}$  nuclei:  $^{104}\text{Sn}$  and the role of proton excitations*, *Physical Review C*, 88:051301(R) (2013).
21. 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).
22. 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).
23. 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).

24. 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).
25. 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 66,68Fe and inferred proton and neutron excitations across  $Z = 28$  and  $N = 40^*$ , *Physical Review C*, 87:014325, 2013.
26. 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 109Sn: Single-neutron and collective excitations near 100Sn*, *Physical Review C*, 86:031302(R), 2012.
27. 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 107Sn*, *European Journal of Physics A*, 48:105, 2012.
28. 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.
29. 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.
30. 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 96Ru g-factor and its nuclear structure interpretation*. *Physical Review C*, 85:017305, 2012.
31. 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.
32. Naofumi Tsunoda, Takaharu Otsuka, Koshiroh Tsukiyama, and Morten Hjorth-Jensen *Renormalization persistency of the tensor force in nuclei*. *Physical Review C*, 84:044322, 2011.
  33. 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.
  34. 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.
  35. 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.
  36. 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.
  37. Morten Hjorth-Jensen, *The Carbon Challenge*, *Physics*, 4:38, 2011.
  38. 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.
  39. Angelo Signoracci, B. Alex Brown, and Morten Hjorth-Jensen, *Renormalized interactions with a realistic single-particle basis*, *Physical Review C*, 83:024315, 2011.
  40. Boyd Alexander Brown, Angelo Signoracci, and Morten Hjorth-Jensen, *Configuration interactions constrained by energy density functionals*, *Physics Letters B*, 695:507, 2011.
  41. 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.
  42. 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.
43. 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.
  44. 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.
  45. 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.
  46. 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.
  47. 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. Wohr, 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.
  48. 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.
  49. C. Barbieri and Morten Hjorth-Jensen, *Quasiparticle and quasihole states of nuclei around  $^{56}\text{Ni}$* , *Physical Review C*, 79:064313, 2009.
  50. 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.
51. 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.
  52. Micho Honma, Takahuro Otsuka, T. Mizusaki, and Morten Hjorth-Jensen, *New effective interaction for fp-shell nuclei*. *Physical Review C*, 80:064323, 2009.
  53. Koshiroh Tsukiyama, Morten Hjorth-Jensen, and Gaute Hagen, *Gamow shell-model calculations of drip-line oxygen isotopes*. *Physical Review C*, 80:051301(R), 2009.
  54. 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.
  55. 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.
  56. 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.
  57. 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.
  58. 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. Wöhr, J. Wrzesinski, and S. Zhu, *Rotation-aligned coupling in  $61\text{Fe}$* , *Physical Review C*, 77:044314, 2008.
  59. 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.
60. 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.
  61. 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.
  62. Maxim Kartamychiev, Torgeir Engeland, Morten Hjorth-Jensen, and Eivind Osnes, *Effective interactions and shell model studies of heavy tin isotopes*, *Physical Review C*, 76:024313, 2007.
  63. 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.
  64. 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.
  65. 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.
  66. Gaute Hagen, Morten Hjorth-Jensen, and Michel Nicolas, *Gamow shell model and realistic nucleon-nucleon interactions*, *Physical Review C*, 73:064307, 2006.
  67. 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. Wohn, J. Wrzesinski, and S. Zhu. *Yrast structure of  $^{64}\text{Fe}$* . *Physical Review C*, 74:064313, 2006.
  68. 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.
  69. 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, *108Sn studied with intermediate-energy Coulomb excitation*, *Physical Review C*, 72:061305, 2005.
70. 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.
71. 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.
72. Gaute Hagen, Morten Hjorth-Jensen, and Jan S. Vaagen, *Effective interaction techniques for the Gamow shell model*, *Physical Review C*, 71:044314, 2005.
73. 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.
74. 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.
75. 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.
76. 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.
77. 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.
78. 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.

79. 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.
80. 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.
81. David J. Dean and Morten Hjorth-Jensen, *Pairing in nuclear systems: from neutron stars to finite nuclei*, *Reviews of Modern Physics*, 75:607, 2003.
82. I. Dillmann, K. L. Kratz, A. Wöhr, 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  $^{130}\text{Cd}$* , *Physical Review Letters*, 91:162503, 2003.
83. 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.
84. 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  $^{56,57}\text{Fe}$  and  $^{96,97}\text{Mo}$* , *Physical Review C*, 68:054326, 2003.
85. N. Fotiades, 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  $^{92,93,94,95}\text{Zr}$* , *Physical Review C*, 65:044303, 2002.
86. 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  $^{100}\text{Sn}$  core*, *Physical Review C*, 66:011302, 2002.
87. 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  $^{105}\text{Sb}$* , *Physical Review C*, 65:051037, 2002.
88. M. Lipoglavsek, C. Baktash, M. P. Carpenter, David J. Dean, Torgeir Engeland, Morten Hjorth-Jensen, and Eivind Osnes, *Core excitations in  $^{102}\text{In}$* , *Physical Review C*, 65:021302(R), 2002.
89. 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  $^{109}\text{Te}$   $\beta^+$  and electron capture decay of  $^{109}\text{Sb}$* , *Physical Review C*, 66:024308, 2002.

90. 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.
91. 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.
92. 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.
93. Andreas Schiller, Amund Bjerne, Magne Guttormsen, Morten Hjorth-Jensen, Finn Ingebretsen, Elin Melby, John Bernhard Rekstad, Sunniva Siem, and Stein Westad Odegaard, *The critical temperature for quenching of pair correlations*, *Physical Review C*, 63:021306, 2001.
94. Teemu Siiskonen, Morten Hjorth-Jensen, and Jouni Suhonen, *Renormalization of the weak hadronic current in the nuclear medium*, *Physical Review C*, 63:024315, 2001.
95. 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.
96. Magne Guttormsen, Amund Bjerne, 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.
97. 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.
98. 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.
99. Henning Heiselberg and Morten Hjorth-Jensen, *Phases of dense matter in neutron stars*, *Physics Reports*, 328:237, 2000.
100. 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.
101. 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.

102. 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.
103. 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.
104. 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.
105. Henning Heiselberg and Morten Hjorth-Jensen, *Phase transitions in neutron stars and maximum masses*, *Astrophysical Journal Letters*, 525:L45, 1999.
106. 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 fpq shell nuclei 58Ni, 61Cu and 61Zn*, *Physical Review C*, 60:064308, 1999.
107. 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 162Dy, 166Er, 172Yb nuclei*, *Physical Review Letters*, 83:3150, 1999.
108. Teemu Siiskonen, Jouni Suhonen, and Morten Hjorth-Jensen, *Shell-model effective operators for muon capture in 20Ne*, *Journal of Physics G: Nuclear and Particle Physics*, 25:L55, 1999.
109. 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.
110. 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.
111. 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.
112. Oystein Elgaroy and Morten Hjorth-Jensen, *Nucleon-nucleon phase shifts and pairing in infinite matter*, *Physical Review C*, 57:1174, 1998.
113. 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.

114. Henning Heiselberg and Morten Hjorth-Jensen, *Phase transitions in rotating neutron stars*, *Physical Review Letters*, 80:5485, 1998.
115. Anne Holt, Torgeir Engeland, Morten Hjorth-Jensen, and Eivind Osnes, *Shell-model calculations of heavy Sn isotopes*, *Nuclear Physics A*, 634:41, 1998.
116. Artur Polls, Herbert Muther, Ruprecht Machleidt, and Morten Hjorth-Jensen, *Phaseshift equivalent NN potentials and the deuteron*, *Physics Letters B*, 432:1, 1998.
117. 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.
118. 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.
119. 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. Rahkila, and Morten Hjorth-Jensen, *Ground state magnetic dipole moment of  $^{135}\text{I}$* , *Nuclear Physics A*, 644:277, 1998.
120. 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.
121. 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.
122. 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.
123. 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.
124. 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.
125. Lars Engvik, Morten Hjorth-Jensen, Eivind Osnes, G. Bao, and Erlend Ostgaard, *Asymmetric Nuclear Matter and Neutron Star Properties*, *Astrophysical Journal*, 469:794, 1996.

126. Alessandro Drago, Umberto Tambini, and Morten Hjorth-Jensen, *Massive quarks in neutron stars*, *Physics Letters B*, 380:13, 1996.
127. 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.
128. Oystein Elgaroy, Lars Engvik, Morten Hjorth-Jensen, and Eivind Osnes, *Superfluidity in beta-stable neutron star matter*, *Physical Review Letters*, 77:1428, 1996.
129. 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.
130. 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.
131. 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.
132. Morten Hjorth-Jensen, Herbert Muther, Artur Polls, and Angels Ramos, *Self-energy of Lambda in finite nuclei*, *Nuclear Physics A*, 605:458, 1996.
133. 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.
134. Morten Hjorth-Jensen, T. Kuo, and Eivind Osnes, *Realistic effective interactions for nuclear systems*, *Physics Reports*, 261:125, 1995.
135. 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.
136. 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.
137. 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.
138. Morten Hjorth-Jensen, Herbert Muther, and Artur Polls, *Width of the  $\Delta$  resonance in nuclei*, *Physical Review C*, 50:501, 1994.

139. Torgeir Engeland, Morten Hjorth-Jensen, Anne Holt, and Eivind Osnes, *The structure of the neutron deficient Sn isotopes*, *Physical Review C*, 48:R535, 1993.
140. 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.
141. 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.
142. 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.
143. 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.
144. 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.
145. Morten Hjorth-Jensen and Kjell Aashamar, *Oscillator strengths and life-times for low-lying terms in the Al isoelectronic sequence*. *Physica Scripta*, 42:309, 1990.
146. 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.
147. 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.
148. 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. 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)
2. Malthe-Sørenssen, Anders; Hjorth-Jensen, Morten; Langtangen, Hans Petter; Mørken, Knut Martin. *Integrasjon av beregninger i fysikkundervisningen*, UNIPED, 38:303, 2015.

3. Engeland, Torgeir; Hjorth-Jensen, Morten; Kartamyshev, Maxim; Osnes, Eivind. The Kuo–Brown effective interaction: From  $^{18}\text{O}$  to the Sn isotopes. *Nuclear Physics A*, 928:, 2014
4. 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.
5. 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)
6. 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
7. 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
8. 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
9. Tsunoda, Naofumi; Otsuka, Takahuro; Tsukiyama, Koshiro; Hjorth-Jensen, Morten. Tensor force in effective interaction of nuclear force. *Journal of Physics, Conference Series* 2011 ;Volume 267.
10. 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
11. Ekstrom, A; Cederkall, Joakim; Fahlander, Claes; Hjorth-Jensen, Morten; Engeland, Torgeir; Butler, PA; Davinson, T; Eberth, J; Finke, F; Gorgen, 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
12. 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
  13. 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
  14. 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
  15. Hjorth-Jensen, Morten. *Computational Quantum Mechanics. META* 2007 ;Volume 2. p. 10-15
  16. Hjorth-Jensen, Morten. High-performance computing and basic education in computational Science. *META* 2007 (1) p. 18-19
  17. 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
  18. 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
  19. 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
  20. 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
  21. 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

22. Wloch, Marta; Dean, David J.; Grou, 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
23. 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
24. 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.
25. 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
26. 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
27. 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
28. 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.
29. 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

30. Belic, Alexandar; Dean, David J.; Hjorth-Jensen, Morten. Pairing correlations and transitions in nuclear systems. *Nuclear Physics A* 2004 ;Volume 731. p. 381-391
31. 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
32. 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
33. 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
34. Dean, David J.; Hjorth-Jensen, Morten. Toward coupled-cluster implementations in nuclear structure. *AIP Conference Proceedings* 2003 ;Volume 656. p 197-204
35. 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
36. Hjorth-Jensen, Morten. Pairing correlations, from neutron stars to finite nuclei. *Progress of Theoretical Physics Supplement* 2002 ;Volume 146. p. 289-298
37. 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
38. 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
39. 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

40. 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
41. 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
42. 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
43. 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
44. 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
45. 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
46. 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
47. 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

48. 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
49. 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
50. 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
51. White, G.N.; Stone, N.J.; Rikovska, 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
52. 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
53. 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
54. Engeland, T, Hjorth-Jensen, M, Holt, A., and Osnes, E., Extensive nuclear structure calculations in the tin isotopes. Edited by: Klapdor Klegrothaus, 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
55. 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

56. 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
  
57. 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
  
58. 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