Jiangming Yao

Curriculum vitae

Research Associate
FRIB, Michigan State University
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www.researcherid.com/rid/C-2437-2009

Research Interest

- Microscopic modeling and calculation of atomic nuclei and decays
- Neutrinoless double beta decay and nature of neutrinos
- Nucleosynthesis and neutron stars
- Application of high-performance computing, statistic models and machine learning techniques in nuclear physics

Professional experience

2018– **Postdoctoral Research Associate**, *FRIB/NSCL, Michigan State University*.

2015–2017 **Postdoctoral Research Associate**, *University of North Carolina at Chapel Hill*.

2013–2015 **Assistant Professor**, *Tohoku University*, Japan.

2011–2012 **Postdoc**, *Université Libre de Bruxelles*, Belgium.

2009–2017 **Professor**, *Southwest University*, China.

Education

2004–2009 **PhD in Computational Nuclear Physics**, *Peking University*, China.
Thesis: Covariant density functional theory for nuclear spectroscopy
Supervisor: Jie Meng

2006–2008 **Exchange PhD program**, *Technical University of Munich*, Germany.
Supervisor: Peter Ring

2000–2004 **BSc**, *Nankai University*, China.

Teaching and tutoring experience

2005 **Teaching Assistant**, *Peking University, China*.

2009–2011 **Modern physics for undergraduate students**, *Southwest University, China*.

Nuclear Theory for graduate students, *Southwest University, China*.

2010 **The first school of nuclear covariant density functional theory**, *Beihang University, China*.

2009–2016 **Supervisor of six master students**, *Southwest University, China*.

Prizes and awards

2015 **J. M. Yao (PI)**, *National Natural Science Foundation of China*, Multi-reference covariant energy density functional theory for odd-dd nuclei, Grant No. 11575148.
$80,000 for period 01/01/2016–12/30/2019

2013 **J. M. Yao (PI)**, *National Natural Science Foundation of China*, Covariant energy density functional theory for the hyperon impurity effect in atomic nuclei, Grant No. 111105111.
$30,000 for period 01/01/2012 –12/30/2014

2009 **J. M. Yao (PI)**, *National Natural Science Foundation of China*, Covariant energy density functional theory for the low-lying states of exotic nuclei, Grant No. 10947013.
$20,000 for period 01/01/2010–12/30/2012

2006-2008 **European Community project Asia-Europe Link in Nuclear Physics and Astrophysics**, CN/ASIA-LINK/008 (094-791).

2008 **Wu-Si scholarship for top students**, *Peking University*.

2001 **First prize in the mathematics competition for university students**, *Tianjin municipality*.

Professional service

Reviewer for Journals **Physical Review C, Progress of Theoretical and Experimental Physics, Chinese Physics C, European Physical Journal A, International Journal of Modern Physics E, Communication in Theoretical Physics, Frontiers of Physics, Central European Journal of Physics, Science in China: Physics, Mechanics and Astronomy**.

References

Heiko Hergert, *hergert@frib.msu.edu*.

Jonathan Engel, *engelj@physics.unc.edu*.

Peter Ring, *peter.ring@tum.de*.

Kouichi Hagino, *hagino@nucl.phys.tohoku.ac.jp*.

Jie Meng, *mengj@pku.edu.cn* .

Publications

Summary **60+ peer reviewed research papers**.

20+ conference proceedings.

3 book chapters.

H-index is 23 and Sum of the Times Cited is 1684 , *Web of Science*.

ResearcherID **http://www.researcherid.com/rid/C-2437-2009**.

Inspirehep `http://inspirehep.net/search?ln=zh_CN&ln=zh_CN&p=find+au+j.+m.+yao&of=hcs&action_search=??&sf=&so=d&rm=&rg=25&sc=0`.

ORCID **http://orcid.org/0000-0001-9505-1852**.

Invited talks in conferences/workshops

2018/06/26 **Beyond relativistic mean-field approach to deformed hypernuclei**, *The 13th International Conference on Hypernuclear and Strange Particle Physics, June 24-29, 2018, Portsmouth Virginia, USA*.

2014/09/12 **Nuclear matrix elements for neutrinoless double beta decay: multi-reference covariant DFT**, *The Autumn meeting of Chinese Physical Society (CPS2014), Sep. 11-14, 2014, Harbin, China*.

2014/09/ **Multi-reference covariant density functional theory for nuclear spectroscopy: recent progress**, *The long-term workshop "Present Status of the Nuclear Interaction Theory", Aug 25-Sep 19, 2014, Kavli Institute for Theoretical Physics China (KITPC), Chinese Academy of Sciences, Beijing*.

2011/10 **Impurity effect of Lambda hyperon on the collective excitation of atomic nuclei**, *The 18th Nuclear Physics Workshop "Nuclear Collective Phenomena ", September 28 - October 02, 2011, Kazimierz Dolny, Poland*.

2011/09 **3D angular momentum restored calculations with a relativistic point-coupling Lagrangian**, *International workshop on "Restoring broken symmetries within the nuclear Energy Density Functional method", September 13-15, 2011, CEA/SPhN, Gif-sur-Yvette Cedex, Paris, France*.

2009/09 **An extended covariant density functional theory for low-lying states of exotic nuclei**, *The 2009 Autumn meeting of Chinese Physical Society, September 17-20, 2009, Shanghai, China* .

Contributed talks in conferences/workshops/seminars

2018/11/19 **Beyond mean-field approaches for nuclear physics**, *Physics Colloquium, Western Michigan University, Kalamazoo, USA*.

2018/11/15 **Computing low-lying states of deformed nuclei with chiral NN+3N interactions**, *FRIB/NSCL, Michigan State University, East Lansing, USA*.

2018/09/07 **GCM-based IMSRG and neutrinoless double beta decay**, *7-8 September, 2018 DBD Collaboration Meeting at Lawrence Berkeley National Laboraotory, USA*.

2018/05/29 **Multi-reference in-medium similarity renormalization group for deformed nuclei**, *2018 NUCLEI Collaboration Meeting, May 29 to June 1, 2018, Knoxville, Tennessee, USA*.

2018/04/03 **Generator Coordinate Method for Nuclear Low-Lying States: from MR-EDF to MR-IMSRG Calculations**, *Theory Seminar, NSCL/FRIB at MSU, East Lansing, USA*.

2017/06/20 **Multi-Reference In-Medium SRG for Neutrinoless Double Beta Decay**, *INT Program 17-2a, Neutrinoless Double-beta Decay, University of Washington, Seattle, USA*.

2017/06/08 **Multi-reference in medium SRG for neutrinoless double beta decay**, *NUCLEI Collaboration meeting, June 6-8, 2017 in Santa Fe, NM, USA*.

2017/02/03 **Multi-Reference In-medium Similarity Renormalization Group for the Nuclear Matrix Elements of Neutrinoless Double Beta Decay**, *2017 DBD Collaboration Meeting, UMass Amherst, USA*.

216/10/12 **Multi-reference covariant density functional theory for the nuclear matrix elements of Neutrinoless Double Beta Decay**, *Sichuan University, Chengdu, China*.

2016/08/01 **Multi-reference In-medium SRG for the Nuclear Matrix Elements of Neutrinoless Double Beta Decay**, *2016 DBD Collaboration Meeting, August 1-2, 2016, FRIB, Michigan State University, East Lansing, USA*..

2015/06/ **Towards Ab-initio Calculation of Nuclear Matrix Elements for Neutrinoless Double Beta Decay**, *NUCLEI SciDAC Collaboration Meeting, June 6-10, at Argonne National Laboratory, USA*.

2015/05/18 **Building New Nuclear Theory Research at York**, *University of York, UK*.

2015/02/12 **Beyond relativistic mean-field study of low-lying states for quadrupole-octupole deformed nuclei**, *Collaboration workshop, Feb.12-13, 2015, Aizu University, Japan*.

2014/09/18 **Unveiling nuclear structure with spectroscopic methods**, *School of Physics and Nuclear Energy Engineering, Beihang University, Beijing, China*.

2014/03/17 **A relativistic energy density functional calculation of the nuclear matrix elements in neutrinoless double beta decay**, *International Molecule-type Workshop on New correlations in exotic nuclei and advances of theoretical models, Yukawa Institute for Theoretical Physics (YITP), Kyoto University, Japan, 2014*.

2013/12/04 **Covariant density functional theory for nuclear collective excitations**, *Yukawa Institute for Theoretical Physics (YITP), Kyoto University, Japan*.

2013/12/03 **Beyond mean-field description of impurity effect of Lambda hyperon on nuclear collective excitations**, *The Strangeness Nuclear Physics Laboratory, RIKEN Nishina center for Accelerator-Based Science, Japan*.

2013/10/09 **Description of nuclear collective excitations with multi-reference covariant density functional theory: Role of dynamical correlation effects**, *The Theoretical Nuclear Physics Laboratory, RIKEN Nishina center for Accelerator-Based Science, Japan*.

2013/09/10 **Multi-Reference Covariant Density Functional Theory for Nuclear Spectroscopy**, *Sendai Nuclear Science Colloquium, Tohoku University, Japan*.

2012/01/17 **Beyond mean-field study of low-lying collective excitation states in lead region**, *Workshop on Coulex analysis in lead region, Jan. 16-17, 2012, K.U. Leuven, Belgium*.

2011/06 **Effects of triaxiality in low-lying states of magnesium isotopes: a relativistic 3DAMP+GCM study**, *International Symposium: "Advances in Nuclear Many-Body Theory", Primosten, Croatia, June 7-10, 2011*.

2010/09 **Configuration mixing of angular momentum projected triaxial relativistic mean-field states**, *The 17th Nuclear Physics Workshop, "Marie & Pierre Curie", "Symmetry and symmetry breaking in nuclear physics", 22-26th September 2010 in Kazimierz Dolny, Poland*.

2010/06 **Beyond the relativistic mean-field theory: configuration mixing of three-dimensional angular momentum projected states**, *The BLTP/JINR - KLFTP/CAS Joint Workshop on NUCLEAR PHYSICS, Dubna, Russia, June 28-July 4, 2010*.

2009/06 **Extending the covariant density functional theory for nuclear low-lying excited states – Three-dimensional angular momentum projected generator coordinate method**, *"Relativistic many-body problems for heavy and superheavy nuclei", Beijing, KITPC/ITP-CAS, June, 2009*.

Jiangming Yao

Publication list

Research Associate
FRIB, Michigan State University
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http://www.researcherid.com/rid/C-2437-2009

Peer Reviewed Articles

[1] J. M. Yao, J. Engel, L. J. Wang, C. F. Jiao, and H. Hergert. Generator-coordinate reference states for spectra and $0\nu\beta\beta$ decay in the in-medium similarity renormalization group. *Phys. Rev. C*, 98:054311, Nov 2018.

[2] Long-Jun Wang, Jonathan Engel, and J. M. Yao. Quenching of nuclear matrix elements for $0\nu\beta\beta$ decay by chiral two-body currents. *Phys. Rev. C*, 98:031301, Sep 2018.

[3] H. Mei, K. Hagino, J. M. Yao, and T. Motoba. Disappearance of nuclear deformation in hypernuclei: A perspective from a beyond-mean-field study. *Phys. Rev. C*, 97:064318, Jun 2018.

[4] Y. Fu, H. Tong, X. F. Wang, H. Wang, D. Q. Wang, X. Y. Wang, and J. M. Yao. Microscopic analysis of shape transition in neutron-deficient yb isotopes. *Phys. Rev. C*, 97:014311, Jan 2018.

[5] Y. Fu, H. Wang, L.-J. Wang, and J. M. Yao. Odd-even parity splittings and octupole correlations in neutron-rich ba isotopes. *Phys. Rev. C*, 97:024338, Feb 2018.

[6] X. Y. Wu, H. Mei, J. M. Yao, and Xian-Rong Zhou. Beyond-mean-field study of the hyperon impurity effect in hypernuclei with shape coexistence. *Phys. Rev. C*, 95:034309, Mar 2017.

[7] H. Xia, H. Mei, and J. M. Yao. Configuration mixing in low-lying spectra of carbon hypernuclei. *Science China Physics, Mechanics & Astronomy*, 60(10):102021, Jul 2017.

[8] L. S. Song, J. M. Yao, P. Ring, and J. Meng. Nuclear matrix element of neutrinoless double-β decay: Relativity and short-range correlations. *Phys. Rev. C*, 95:024305, Feb 2017.

[9] H. Mei, K. Hagino, J. M. Yao, and T. Motoba. Transition from vibrational to rotational character in low-lying states of hypernuclei. *Phys. Rev. C*, 96:014308, Jul 2017.

[10] E.F. Zhou, J. M. Yao, Z.P. Li, J. Meng, and P. Ring. Anatomy of molecular structures in 20ne. *Physics Letters B*, 753:227 – 231, 2016.

[11] J. M. Yao and K. Hagino. Anharmonicity of multi–octupole-phonon excitations in $^{208}\mathrm{Pb}$: Analysis with multireference covariant density functional theory and subbarrier fusion of $^{16}\mathrm{O} + ^{208}\mathrm{Pb}$. *Phys. Rev. C*, 94:011303, Jul 2016.

[12] H. Mei, K. Hagino, and J. M. Yao. Generator coordinate method for hypernuclear spectroscopy with a covariant density functional. *Phys. Rev. C*, 93:011301, Jan 2016.

[13] H. Mei, K. Hagino, J. M. Yao, and T. Motoba. Low-energy hypernuclear spectra within a microscopic particle-rotor model with a relativistic point-coupling hyperon-nucleon interaction. *Phys. Rev. C*, 93:044307, Apr 2016.

[14] J. Xiang, J. M. Yao, Y. Fu, Z. H. Wang, Z. P. Li, and W. H. Long. Novel triaxial structure in low-lying states of neutron-rich nuclei around $a \approx 100$. *Phys. Rev. C*, 93:054324, May 2016.

[15] J. M. Yao and J. Engel. Octupole correlations in low-lying states of $^{150}\mathrm{Nd}$ and $^{150}\mathrm{Sm}$ and their impact on neutrinoless double-β decay. *Phys. Rev. C*, 94:014306, Jul 2016.

[16] J. M. Yao, E. F. Zhou, and Z. P. Li. Beyond relativistic mean-field approach for nuclear octupole excitations. *Phys. Rev. C*, 92:041304, Oct 2015.

[17] J. M. Yao, M. Bender, and P.-H. Heenen. Beyond-mean-field study of elastic and inelastic electron scattering off nuclei. *Phys. Rev. C*, 91:024301, Feb 2015.

[18] K. Q. Lu, Z. X. Li, Z. P. Li, J. M. Yao, and J. Meng. Global study of beyond-mean-field correlation energies in covariant energy density functional theory using a collective hamiltonian method. *Phys. Rev. C*, 91:027304, Feb 2015.

[19] H. Mei, K. Hagino, J. M. Yao, and T. Motoba. Microscopic study of low-lying spectra of Λ hypernuclei based on a beyond-mean-field approach with a covariant energy density functional. *Phys. Rev. C*, 91:064305, Jun 2015.

[20] K. Hagino and J. M. Yao. Semimicroscopic modeling of heavy-ion fusion reactions with multireference covariant density functional theory. *Phys. Rev. C*, 91:064606, Jun 2015.

[21] J. M. Yao, L. S. Song, K. Hagino, P. Ring, and J. Meng. Systematic study of nuclear matrix elements in neutrinoless double-β decay with a beyond-mean-field covariant density functional theory. *Phys. Rev. C*, 91:024316, Feb 2015.

[22] W. X. Xue, J. M. Yao, K. Hagino, Z. P. Li, H. Mei, and Y. Tanimura. Triaxially deformed relativistic point-coupling model for Λ hypernuclei: A quantitative analysis of the hyperon impurity effect on nuclear collective properties. *Phys. Rev. C*, 91:024327, Feb 2015.

[23] Ying Wang, Jian Li, Jing Bin Lu, and J. M. Yao. A systematic study of even–even nuclei from ne to ca in covariant density functional theory with triaxiality. *Progress of Theoretical and Experimental Physics*, 2014(11):113D03, 2014.

[24] Qian-Shun Zhang, Zhong-Ming Niu, Zhi-Pan Li, J. M. Yao, and Jie Meng. Global dynamical correlation energies in covariant density functional theory: Cranking approximation. *Frontiers of Physics*, 9(4):529–536, Aug 2014.

[25] X. Y. Wu, J. M. Yao, and Z. P. Li. Low-energy structure and anti-bubble effect of dynamical correlations in ^{46}ar. *Phys. Rev. C*, 89:017304, Jan 2014.

[26] J. M. Yao, K. Hagino, Z. P. Li, J. Meng, and P. Ring. Microscopic benchmark study of triaxiality in low-lying states of $^{76}\mathrm{Kr}$. *Phys. Rev. C*, 89:054306, May 2014.

[27] H. Mei, K. Hagino, J. M. Yao, and T. Motoba. Microscopic particle-rotor model for the low-lying spectrum of Λ hypernuclei. *Phys. Rev. C*, 90:064302, Dec 2014.

[28] L. S. Song, J. M. Yao, P. Ring, and J. Meng. Relativistic description of nuclear matrix elements in neutrinoless double-β decay. *Phys. Rev. C*, 90:054309, Nov 2014.

[29] J. M. Yao, N. Itagaki, and J. Meng. Searching for a 4α linear-chain structure in excited states of $^{16}\mathrm{O}$ with covariant density functional theory. *Phys. Rev. C*, 90:054307, Nov 2014.

[30] Y. Fu, H. Mei, J. Xiang, Z. P. Li, J. M. Yao, and J. Meng. Beyond relativistic mean-field studies of low-lying states in neutron-deficient krypton isotopes. *Phys. Rev. C*, 87:054305, May 2013.

[31] J. M. Yao, H. Mei, and Z.P. Li. Does a proton bubble structure exist in the low-lying states of 34si? *Physics Letters B*, 723(4):459 – 463, 2013.

[32] J. Xiang, Z. P. Li, J. M. Yao, W. H. Long, P. Ring, and J. Meng. Effect of pairing correlations on nuclear low-energy structure: Bcs and general bogoliubov transformation. *Phys. Rev. C*, 88:057301, Nov 2013.

[33] H. Y. Sang, X. S. Wang, H. F. Lü, J. M. Yao, and H. Sagawa. Magnetic moments of Λ hypernuclei within the time-odd triaxial relativistic mean-field approach. *Phys. Rev. C*, 88:064304, Dec 2013.

[34] Z.P. Li, B.Y. Song, J. M. Yao, D. Vretenar, and J. Meng. Simultaneous quadrupole and octupole shape phase transitions in thorium. *Physics Letters B*, 726(4):866 – 869, 2013.

[35] X. S. Wang, H. Y. Sang, H. F. Lü, J. M. Yao, and H. Sagawa. Systematic study of hypernuclear magnetic moments under a perturb treatment. *The European Physical Journal A*, 49(8):101, Aug 2013.

[36] J. M. Yao, M. Bender, and P.-H. Heenen. Systematics of low-lying states of even-even nuclei in the neutron-deficient lead region from a beyond-mean-field calculation. *Phys. Rev. C*, 87:034322, Mar 2013.

[37] J. M. Yao, Simone Baroni, Michael Bender, and Paul-Henri Heenen. Beyond-mean-field study of the possible "bubble" structure of ^{34}si. *Phys. Rev. C*, 86:014310, Jul 2012.

[38] J. Xiang, Z.P. Li, Z.X. Li, J. M. Yao, and J. Meng. Covariant description of shape evolution and shape coexistence in neutron-rich nuclei at $n = 60$. *Nuclear Physics A*, 873:1 – 16, 2012.

[39] Z. P. Li, T. Nikšić, P. Ring, D. Vretenar, J. M. Yao, and J. Meng. Efficient method for computing the thouless-valatin inertia parameters. *Phys. Rev. C*, 86:034334, Sep 2012.

[40] Z.P. Li, C.Y. Li, J. Xiang, J. M. Yao, and J. Meng. Enhanced collectivity in neutron-deficient sn isotopes in energy functional based collective hamiltonian. *Physics Letters B*, 717(4):470 – 473, 2012.

[41] H. Mei, J. Xiang, J. M. Yao, Z. P. Li, and J. Meng. Rapid structural change in low-lying states of neutron-rich sr and zr isotopes. *Phys. Rev. C*, 85:034321, Mar 2012.

[42] H. Mei, Y. Huang, J. M. Yao, and H. Chen. Systematic study of the symmetry energy coefficient in finite nuclei. *Journal of Physics G: Nuclear and Particle Physics*, 39(1):015107, 2012.

[43] J. M. Yao, H. Mei, H. Chen, J. Meng, P. Ring, and D. Vretenar. Configuration mixing of angular-momentum-projected triaxial relativistic mean-field wave functions. ii. microscopic analysis of low-lying states in magnesium isotopes. *Phys. Rev. C*, 83:014308, Jan 2011.

[44] Z. P. Li, J. M. Yao, D. Vretenar, T. Nikšić, H. Chen, and J. Meng. Energy density functional analysis of shape evolution in $n = 28$ isotones. *Phys. Rev. C*, 84:054304, Nov 2011.

[45] J. M. Yao, Jing Peng, Jie Meng, and Peter Ring. g factors of nuclear low-lying states: A covariant description. *Science China Physics, Mechanics and Astronomy*, 54(2):198–203, Feb 2011.

[46] J. M. Yao, Z.P. Li, K. Hagino, M.Thi Win, Y. Zhang, and J. Meng. Impurity effect of lambda hyperon on collective excitations of nuclear core in mg25. *Nuclear Physics A*, 868-869:12 – 24, 2011.

[47] J. M. Yao, J. Meng, P. Ring, Z. X. Li, Z. P. Li, and K. Hagino. Microscopic description of quantum shape fluctuation in c isotopes. *Phys. Rev. C*, 84:024306, Aug 2011.

[48] Jian Li, J. M. Yao, Jie Meng, and Akito Arima. One-pion exchange current corrections for nuclear magnetic moments in relativistic mean field theory. *Progress of Theoretical Physics*, 125(6):1185–1192, 2011.

[49] Q. B. Chen, J. M. Yao, S. Q. Zhang, and B. Qi. Chiral geometry of higher excited bands in triaxial nuclei with particle-hole configuration. *Phys. Rev. C*, 82:067302, Dec 2010.

[50] S. Y. Wang, D. P. Sun, B. T. Duan, X. L. Ren, B. Qi, X. X. Zhu, F. Z. Lv, C. Liu, C. J. Xu, J. Meng, H. Hua, F. R. Xu, Z. Y. Li, S. Q. Zhang, Y. Shi, J. M. Yao,

L. H. Zhu, X. G. Wu, G. S. Li, Y. Liu, X. Q. Li, Y. Zheng, L. L. Wang, and L. Wang. Coexistence of collective and noncollective structures in $^{118}\mathrm{Sn}$. *Phys. Rev. C*, 81:017301, Jan 2010.

[51] J. M. Yao, J. Meng, P. Ring, and D. Vretenar. Configuration mixing of angular-momentum-projected triaxial relativistic mean-field wave functions. *Phys. Rev. C*, 81:044311, Apr 2010.

[52] P. W. Zhao, Z. P. Li, J. M. Yao, and J. Meng. New parametrization for the nuclear covariant energy density functional with a point-coupling interaction. *Phys. Rev. C*, 82:054319, Nov 2010.

[53] S. Y. Wang, B. Qi, D. P. Sun, X. L. Ren, B. T. Duan, F. Chen, C. Liu, C. J. Xu, L. Liu, H. Hua, Z. Y. Li, J. M. Yao, L. H. Zhu, X. G. Wu, G. S. Li, Y. Liu, X. Q. Li, Y. Zheng, L. L. Wang, and L. Wang. Shape coexistence and strongly coupled bands in $^{118}\mathrm{Sb}$. *Phys. Rev. C*, 82:057303, Nov 2010.

[54] J. M. Yao, B. Qi, S. Q. Zhang, J. Peng, S. Y. Wang, and J. Meng. Candidate multiple chiral doublets nucleus $^{106}\mathrm{Rh}$ in a triaxial relativistic mean-field approach with time-odd fields. *Phys. Rev. C*, 79:067302, Jun 2009.

[55] B. Qi, S. Q. Zhang, S. Y. Wang, J. M. Yao, and J. Meng. Examining $b(m1)$ staggering as a fingerprint for chiral doublet bands. *Phys. Rev. C*, 79:041302, Apr 2009.

[56] J. M. Yao, J. Meng, P. Ring, and D. Pena Arteaga. Three-dimensional angular momentum projection in relativistic mean-field theory. *Phys. Rev. C*, 79:044312, Apr 2009.

[57] J. M. Yao, Meng Jie, D. Pena Arteaga, and P. Ring. Three-dimensional angular momentum projected relativistic point-coupling approach for low-lying excited states in 24 mg. *Chinese Physics Letters*, 25(10):3609, 2008.

[58] J. Peng, H. Sagawa, S. Q. Zhang, J. M. Yao, Y. Zhang, and J. Meng. Search for multiple chiral doublets in rhodium isotopes. *Phys. Rev. C*, 77:024309, Feb 2008.

[59] J. M. Yao, B. Sun, P. J. Woods, and J. Meng. Effects of triaxial deformation and pairing correlation on the proton emitter $^{145}\mathrm{Tm}$. *Phys. Rev. C*, 77:024315, Feb 2008.

[60] S. Y. Wang, S. Q. Zhang, B. Qi, J. Peng, J. M. Yao, and J. Meng. Description of doublet bands in $^{106}\mathrm{Rh}$. *Phys. Rev. C*, 77:034314, Mar 2008.

[61] J. M. Yao, Lu Hong-Feng, Hillhouse Greg, and Meng Jie. Core polarization and tensor coupling effects on magnetic moments of hypernuclei. *Chinese Physics Letters*, 25(5):1629, 2008.

[62] H. Chen, H. Mei, J. Meng, and J. M. Yao. Binding energy differences of mirror nuclei in a time-odd triaxial relativistic mean field approach. *Phys. Rev. C*, 76:044325, Oct 2007.

[63] J. M. Yao, H. Chen, and J. Meng. Time-odd triaxial relativistic mean field approach for nuclear magnetic moments. *Phys. Rev. C*, 74:024307, Aug 2006.

Book Chapters

[1] "Beyond the relativistic mean-field approximation - collective correlations, Z. P. Li, T. Niksic, D. Vretenar, and J. M. Yao, A chapter in the book "Relativistic Density Functional for Nuclear Structure", World Scientific Publishing Company (Singapore), Editor Prof. Jie Meng, http://www.worldscientific.com/worldscibooks/10.1142/9872

[2] "Structure of hypernuclei in relativistic approaches", K. Hagino, J. M. Yao, A chapter in the book "Relativistic Density Functional for Nuclear Structure", World Scientific Publishing Company (Singapore), Editor Prof. Jie Meng, http://www.worldscientific.com/worldscibooks/10.1142/9872

[3] "Nuclear matrix elements for the neutrinoless double beta decay in covariant density functional theory", J. Meng, L. S. Song, and J. M. Yao, Int. J. Mod. Phys. Vol. 26 (2017) 1740020 (26 pages) http://www.worldscientific.com/doi/abs/10.1142/S0218301317400201 Contribution to the Gerry Brown 90th birthday memorial book published by World Scientific Publishing Company (Singapore).

Conference Proceedings

[1] Relativistic Mean-Field and Beyond Approaches for Deformed Hypernuclei, J. M. Yao, H. Mei, K. Hagino, T. Motoba, arXiv:1808.04042 (2018). Proceedings of the 13th International Conference on Hypernuclear and Strange Particle Physics (HYP2018).

[2] Nuclear Structure from the In-Medium Similarity Renormalization Group, H. Hergert, J. M. Yao, T. D. Morris, N. M. Parzuchowski, S. K. Bogner, J. Engel, Journal of Physics: Conference Series 1041 (1), 012007.

[3] Beyond-mean-field approach to low-lying spectra of Λ hypernuclei, K. Hagino, H. Mei, J. M. Yao, T. Motoba, JPS Conf. Proc. 17, 012007 (2017), Proceedings of the 12th International Conference on Hypernuclear and Strange Particle Physics (HYP2015)

[4] Recent developments in heavy-ion fusion reactions around the Coulomb barrier, K. Hagino, N. Rowley, and J. M. Yao, in the proceedings of the 5th International Workshop on Compound-Nuclear Reactions and Related Topics (CNR*15), October 9-23, 2015, Tokyo, Japan. Published in EPJ Web Conf. 122 (2016) 07002

[5] "Present status of coupled-channels calculations for heavy-ion subbarrier fusion reactions" K. Hagino, J. M. Yao, in the proceedings of the 12th International Conference on Nucleus-Nucleus Collisions (NN2015), June 21-26, 2015, Catania, Italy. EPJ Web of Conferences 117 (2016) 08003/1-10. DOI: 10.1051/epjconf/201611708003 Conference: C15-06-21.1 Proceedings, e-Print: arXiv:1508.04222 [nucl-th]

[6] Neutrinoless double-beta decay in covariant density functional theory, P. Ring, J. M. Yao, L.S. Song, K. Hagino, J. Meng, in the proceedings of the International Conference on Nuclear Structure and Dynamics '15, June 14-19, 2015, Portoroz, Slovenia. Published in AIP Conf.Proc. 1681 (2015) 050008

[7] Collective excitations of Λ hypernuclei, K. Hagino, J. M. Yao, F. Minato, Z.P. Li, M. Thi Win. Published in Nucl.Phys. A914 (2013) 151-159 DOI: 10.1016/j.nuclphysa.2012.12.077 Conference: C12-10-01 Proceedings, e-Print: arXiv:1211.5871 [nucl-th]

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