

CURRICULUM VITAE

Xinfeng Chen PhD

Assistant Professor
Department of Radiation Oncology

OFFICE ADDRESS:

8850 William Coffey Drive

Milwaukee, WI 53226

EDUCATION:

07/1992 B.S. in Physics, Tianjin University, China

06/20/1995 M.S. in Physics, Institute of Modern Physics, Chinese Academy of Science, Lanzhou, China

05/09/2008 Ph.D. in Physics, Texas A & M University, College Station, TX

POSTGRADUATE TRAINING AND FELLOWSHIP APPOINTMENTS:

2013 - 2015 Postdoctoral Fellow, Radiation Oncology, Medical College of Wisconsin, Milwaukee, WI 53226

2015 - 2018 Medical Physics Resident, Radiation Oncology, Medical College of Wisconsin, Milwaukee, WI 53226

2015 CAMPEP Accredited Certificate in Medical Physics, Radiation Oncology, Medical College of Wisconsin, Milwaukee, WI 53226

2018 - Present Medical Physicist, Radiation Oncology, Medical College of Wisconsin, Milwaukee, WI 53226

SPECIALTY BOARDS AND CERTIFICATION:

<u>Certificates</u>	<u>Issued By</u>	<u>Issue Date</u>	<u>Expiration</u>
Part 1 - Clinical Physics - Passed: Part 1 - General Physics - Passed: Board Eligible after completing Part 2 Examination	American Board of Radiology (ABR)	08/2015	None

AWARDS AND HONORS:

1990 Outstanding Academic Performance Award in Physics Department, Tianjin University

1991 Outstanding Student Award, Tianjin University

1992 Admitted by Graduate School of Chinese Academy of Science with Exemption of Examination due to the Excellent Academic Records of Undergraduate Study, Institute of Modern Physics, Chinese Academy of Science

1993 Outstanding Graduate Student Award, Institute of Modern Physics, Chinese Academy of Science

1996 3rd Award for Scientific Research, Qingdao University

1998 Excellence in Teaching, College of Science, Qingdao University

MEMBERSHIPS IN HONORARY AND PROFESSIONAL SOCIETIES:

2005 - 2015 American Physics Society (APS) (Member)

2014 - Present American Association of Physicists in Medicine (AAPM) (Member)

RESEARCH GRANTS/AWARDS/CONTRACTS/PROJECTS:

Prior

Peer Review

Title:	Measuring the lifetimes of several nuclear energy levels of ^{120}Xe , ^{121}Cs and ^{117}I using RDDS method
Source:	Department of Energy
Role & Effort:	Graduate student at Institute of Modern Physics
Dates:	09/1992 - 06/1995
Title:	Building plunger - the apparatus for lifetime measurement of nuclear excited states with recoil distance Doppler shift (RDDS) method
Source:	Department of Energy
Role & Effort:	Graduate student at Institute of Modern Physics
Dates:	09/1992 - 06/1995
Title:	Building viewer for 0 degree giant resonance measurement, testing box for decay detector in target chamber, scintillator detector with its holder and light-tight box for Oxford detector
Source:	Department of Energy
Role & Effort:	Graduate Research Assistant at Cyclotron Institute, Texas A & M University
Dates:	05/2001 - 05/2008
Title:	Working on focal plane detector of the multipole-dipole-multipole magnetic spectrometer and maintenance on the wire detectors, ionization chamber and plastic scintillator detectors
Source:	Department of Energy
Role & Effort:	Graduate Research Assistant at Cyclotron Institute, Texas A & M University
Dates:	05/2001 - 05/2008
Title:	Writing codes and analyzed nuclear physics experimental data with Fortran, Python, Excel. Developed (using ECIS, DFPD4, CHEN2, OPTJLM1) and carried out double folding analyses of ^6Li data
Source:	Department of Energy
Role & Effort:	Graduate Research Assistant at Cyclotron Institute, Texas A & M University
Dates:	05/2001 - 05/2008
Title:	Participating in research and development of decay detector in target chamber of MDM spectrometer for giant

resonance study with inverse kinematic reaction

Source: Department of Energy
 Role & Effort: Postdoc Research Assistant at Cyclotron Institute, Texas A & M University
 Dates: 05/2008 - 07/2008

Title: Searching for property of low-lying state of ^{92}Pd with Gammasphere, FMA (Fragment Mass Analyzer) located at ATLAS accelerator and auxiliary detector arrays-Microball and Neutron Shell

Source: Department of Energy
 Role & Effort: Postdoc Research Associate at Chemistry Department, Washington University, St. Louis
 Dates: 07/2008 - 11/2012

Title: Developing a dynamic Monte-Carlo simulation method with Python code to extract nuclear magnetic moment through atomic structure calculation on hyperfine interaction

Source: Department of Energy
 Role & Effort: Postdoc Research Associate at Chemistry Department, Washington University, St. Louis
 Dates: 07/2008 - 11/2012

Title: Monte-Carlo simulation for nuclear g factor measurement with Recoil-into-Vacuum (RIV) technique

Source: Department of Energy
 Role & Effort: Research Scientist at Chemistry Department, Washington University, St. Louis
 Dates: 12/2012 - 07/2013

INVITED LECTURES/WORKSHOPS/PRESENTATIONS:

International

CHEN X, et al, Giant Resonance Study on ^{116}Sn with ^6Li Scattering (Oral Presentation), 2nd Joint Meeting of the Nuclear Physics Divisions of the APS and the Physical Society of Japan, Maui, Hawaii, 09/2005

CHEN X, et al, Giant Resonances in ^{24}Mg , ^{28}Si and ^{116}Sn from 240 MeV ^6Li Scattering (Oral Presentation), International Conference on Collective Motion in Nuclei Under Extreme Conditions (COMEX3), Mackinac Island, MI, 06/2009

National

CHEN X, Giant Resonance Study by ^6Li Scattering, Speaker at Physics Division, Argonne National Lab, 04/2008

CHEN X, Giant Resonance Study by ^6Li Scattering, Speaker at Department of Physics and Astronomy, Ohio University, 05/2008

CHEN X, Nuclear g Factor Measurement with Recoil-into-Vacuum Method, Speaker at 88-inch Cyclotron, Nuclear Science Division, Lawrence Berkeley National Lab, 08/2012

CHEN X, The Time-Dependent Monte-Carlo Simulation Method for Nuclear g Factor Measurement with RIV Method, Speaker at Cyclotron Institute, Texas A & M University, 12/2012

- CHEN X, Prior P, Schultz CJ, Li XA, et al, Dose Effect of Transverse Magnetic Field on IMRT Plans Delivered in a MR-Linac (Oral Presentation), ASTRO 56th Annual Meeting, San Francisco, CA, 09/14/2014 - 09/17/2014
- CHEN X, Prior P, Li XA, Dose Effect of Magnetic Field on Airtissue Interface in MR-guided IMRT and VMAT (Oral Presentation), ASTRO 57th Annual Meeting, San Antonio, TX, 10/18/2015 - 10/21/2015
- CHEN X, Tai A, Hall W, Prior P, Erickson B, Herman J, Li XA, An Analysis on Local Control of Chemoradiotherapy for the Locally Advanced Pancreatic Cancer Using a Bio-physical Model (Oral Presentation), ASTRO 59th Annual Meeting, San Diego, CA, 09/24/2017 - 09/27/2017

CLINICAL RESEARCH EXPERIENCE:

- Dose prescription map for pancreatic cancer with Poisson TCP model
Treatment plan study for MR-Linac: Dose effect of the magnetic field.

CLINICAL TRAINING EXPERIENCE:

- Special Procedures Participation: TSI, TBI, Shielding for Pregnant Patients
4D Sorting and Motion Management
Special Procedures Observation: HDR, Seeds-plant
MR-Linac Commissioning: 2ATL test and dosimetry measurement
Monthly QA: CT-Simulator, CT-on-Rail
Annual and Monthly QA: Siemens Artiste, Elekta Infinity and Versa HD, Accuray Radixact
Standard Linac Commissioning: Siemens Artiste, Elekta Versa HD and Accuray Radixact
In Vivo Dosimetry: OSLs and TLDs
IMRT QA: Siemens Artiste, Elekta Infinity and Versa HD, Accuray Radixact, TOMO
MR-Linac Commissioning: 1ATL test and dosimetry measurement
Monthly Planning System QA: Monaco TPS

TEACHING EXPERIENCE:

- 08/1995 - 12/2000 Instructor - Fortran, Computer Language for undergraduate (physics major), Physics Department, Qingdao University
08/1995 - 12/2000 Instructor - Classical Mechanics for undergraduate (physics major), Physics Department, Qingdao University
08/1995 - 12/2000 Instructor - General Physics for undergraduate (non-physics major), Physics Department, Qingdao University

BIBLIOGRAPHY

Refereed Journal Publications/Original Papers

1. Zhou X, Guo Y, Sun X, Lei X, CHEN X, Liu Z, Zhang Y, Jin H, Luo Y, Wen SX, Yuan GJ, Li GS, Yang CX. Observation of Isomeric States in 197Bi. *Z Phys.* 1995;A353,3
2. Liu Z, Sun X, Zhou X, Lei X, Zhang Y, Jin H, Pan Q, Guo Y, CHEN X, Luo Y, Wen S, Yuan GJ, Li GS, Yang CX, Luo WD, Chen YS. Observation of High Spin States in 117Xe. *Z Phys.* 1995;A351,363
3. Liu Z, Sun X, Zhou X, Lei X, Zhang Y, Jin H, Pan Q, Guo Y, CHEN X, Luo Y, Wen S, Yuan G, Yang C, Luo W, Chen YS, Xing Z, Chen XQ. Search for Positive Parity Bands in 117Xe. *Nucl Phys.* 1995;A583,221c
4. Zhou X, Sun X, Guo Y, Lei X, CHEN X, Liu Z, Zhang Y, Jin H, Luo Y, Wen S, Yuan G, Li G, Yang C. A High-Spin Isomer in 198Bi. *Chin Phys Lett.* 1996;13:576
5. Zhou XH, Sun XF, Guo YX, Lei XG, CHEN XF, Liu Z, Zhang YH, Jin HJ, Luo YX, Wen SX, Yuan GJ, Li GS, Yang CX. Excited States in Neutron-Deficient 198Bi. *Phys Rev.* 1996;C54:2948
6. CHEN X, Guo Y, Sun X, Lei X, Zhou X, Liu Z, Jin H, Liu M, Luo Y. The Technique of Lifetime Measurement with Recoil Distance Doppler Shift Method. *Nuclear Techniques.* 1996;19(8):466 in Chinese
7. Zhang YH, Zhou XH, Zhao QZ, Sun XF, Lei XG, Guo YX, Liu Z, CHEN XF, Zhu YT, Wen SX, Yuan GJ, Liu XA. First Observation of Yrast Band in Odd-Odd 162Lu. *Z Phys.* 1996;A355:335
8. Zhang Y, Zhou X, Zhao Q, Sun X, Lei X, Guo Y, Liu Z, CHEN X, Zhu Y, Wen S, Yuan G, Liu X. Signature Inversion of Yrast Band in Odd-Odd 162Lu Nucleus. *Chin Phys Lett.* 1996;13:257
9. Zhou XH, Sun XF, Guo YX, Lei XG, CHEN XF, Liu Z, Zhang YH, Jin HJ, Luo YX, Wen SX, Yuan GJ, Li

- GS, Yang CX. High-Spin States in 198Bi. *Z Phys.* 1996;A354:7
10. Liu Z, Sun XF, Zhou XH, Lei XG, Guo YX, Jin HJ, Zhang YH, CHEN XF, Luo YX, Wen SX, Yang CX, Yuan GJ, Li GS, Liu XA, Chen YS. Evidence for Octupole Correlations in 117Xe. *Chin Phys Lett.* 1996;13:805 in Chinese
 11. Zhou X, Sun X, Guo Y, Lei X, Liu Z, Zhang Y, CHEN X, Jin H, Luo Y. Determination of Half-lives for Isomeric States in 197Bi. *Nuclear Techniques.* 1997;20(9):527 in Chinese
 12. Liu Z, Sun X, Guo Y, Lei X, CHEN X, Zhou X, Zhang Y, Jin H, Luo Y, Wen S, Yuan G, Li G, Yang C, Liu X. Lifetime Measurement of the Negative-Parity Isomers in 117Xe. *High Energy Physics and Nuclear Physics.* 1997;21(10):881 in Chinese
 13. Zhang Y, Zhao Q, Zhou X, Sun X, Lei X, Guo Y, Liu Z, CHEN X, Zhu Y, Wen S, Yuan G, Liu X. High-spin States in 162Lu and Signature Inversion of Yrast Bands in Doubly Odd Nuclei Around A=160 Mass Range. *High Energy Physics and Nuclear Physics.* 1997;21(5):393 in Chinese
 14. Zhou XH, Sun XF, Guo YX, Lei XG, Liu Z, Zhang YH, CHEN XF, Jin HJ, Luo YX, Wen SX, Yuan GJ, Li GS, Yang CX. A New Method to Measure γ Ray Angular Distribution. *Nuclear Techniques.* 1997;20(6):338 in Chinese
 15. Liu Z, Sun X, Zhou X, Lei X, Guo Y, Zhang Y, CHEN X, Jin H, Luo Y, Wen SX, Yang CX, Yuan GJ, Li GS, Liu XA, Luo WD, Chen YS. High Spin States and Evidence for Octupole Correlations in 117Xe. *Eur Phys J.* 1998;1:125
 16. John B, Tokimoto Y, Liu Y-W, Clark HL, CHEN X, Youngblood DH. Isoscalar Electric Multipole Strength in 12C. *Phys Rev C.* 2003;68:014305
 17. Youngblood DH, Lui Y-W, John B, Tokimoto Y, Clark HL, CHEN X. Compression Mode Resonances in 90Zr. *Phys Rev C.* 2004;69:054312
 18. Youngblood DH, Lui Y-W, Clark HL, John B, Tokimoto Y, CHEN X. Isoscalar E0 - E3 Strength in 116Sn, 144Sm, 154Sm, and 208Pb. *Phys Rev C.* 2004;69:034315
 19. Lui Y-W, CHEN X, Clark HL, John B, Tokimoto Y, Youngblood DH. Isoscalar Giant Dipole Resonance for Several Nuclei with A > 90 Structure. *Nucl Phys A.* 2004;28:731
 20. Tokimoto Y, Lui Y-W, Clark HL, John B, CHEN X, Youngblood DH. Giant Resonances in 46,48 Ti. *Phys Rev C.* 2006;74:044308
 21. CHEN X, Lui YW, Clark HL, Tokimoto Y, Youngblood DH. Folding Model Analysis of 240 MeV6Li Elastic Scattering on 116Sn and Inelastic Scattering to Low-lying States of 116Sn. *Phys Rev C.* 2007;76:054606
 22. CHEN X, Lui Y-W, Clark HL, Tokimoto Y, Youngblood DH. Giant Resonance in 116Sn from 240 MeV6Li Inelastic Scattering. *Phys Rev C.* 2009;79:024320
 23. CHEN X, Lui Y-W, Clark HL, Tokimoto Y, Youngblood DH. Giant Resonance in 24Mg and 28Si from 240 MeV6Li Scattering. *Phys Rev C.* 2009;80:014312
 24. Youngblood DH, Lui YW, CHEN XF, Clark HL. Isoscalar Giant Resonance Strength in 24Mg. *Phys Rev C.* 2009;80:014312
 25. Krishichayan, CHEN X, Lui YW, Tokimoto Y, Button J, Youngblood DH. Elastic and Inelastic Scattering to Low-lying States of 58Ni and 90Zr Using 240 MeV6Li. *Phys Rev C.* 2010;81:014603
 26. Al-Abdullah T, Carstoiu F, CHEN X, Clark HL, Fu C, Gagliardi CA, Lui YW, Mukhamedzhanov A, Tabacaru G, Tokimoto Y, Trache L, Tribble RE. Steller Reaction Rate for 22Mg + p - 23Al From the Asymptotic Normalization Coefficients in the Mirror Nuclear System 22Ne + n - 23Ne. *Phys Rev C.* 2010;81:035802
 27. Krishichayan, CHEN X, Lui YW, Tokimoto Y, Button J, Youngblood DH. Elastic and Inelastic Scattering of 240 MeV 6Li Ions from 40Ca and 48Ca and Tests of a Systematic Optical Potential. *Phys Rev C.* 2010;81:044612
 28. Reviol W, Sarentites DG, CHEN X, Montero M, Pechenaya OL, Snyder J, Janssens RVF, Carpenter MP, Chiara CJ, Khoo TL, Lauritsen T, Lister CJ, Seweryniak D, Zhu S, Hauschild K, Lopez-Martens A, Hartley DJ, Frauendorf S. Tidal Wave and Onset of Collectivity Above N=126*. *Acta Phys Pol B.* 2011;42:671
 29. Lui YW, Youngblood DH, Shlomo S, CHEN X, Tokimoto Y, Krishichayan, Anders M, Button J. Isoscalar Giant Resonance in 48Ca. *Phys Rev C.* 2011;83:044327
 30. Bender PC, Tabor SL, Tripathi V, Hoffman CR, Hamilton L, Volya A, Clark RM, Fallon P, Macchiavelli AO, Paschalis S, Petri M, Carpenter MP, Janssens RVF, Lauritsen T, McCutchan EA, Seweryniak D, Zhu S, Chiara CJ, CHEN X, Reviol W, Sarantites DG, Toh Y. Multi-intruder Structures in 34P. *Phys Rev C.* 2012;85:044305
 31. Snyder JB, Reviol W, Sarantites DG, Afanasjev AV, Janssens RVF, Abusara H, Carpenter MP, CHEN X,

- Chiara CJ, Greene JP, Lauritsen T, McCutchan EA, Seweryniak D, Zhu S. High-spin Transition Quadrupole Moments in Neutron-rich Mo and Ru Nuclei: Testing g Softness? *Physics Letters B*. 2013;723:61-65
32. CHEN X, Sarantites DG, Reviol W, Snyder J. Time-dependent Monte Carlo Calculations of Recoil-in-vacuum g-factor Data for ^{122,126,130,132}Te. *Phys Rev C*. 2013;87:044305
33. Al-Adbullah T, Carstoiu F, CHEN X, Clark HL, Gagliardi CA, Lui YW, Mukhamedzhanov A, Tabacaru G, Tokimoto Y, Trache L, Tribble RE, Zhai Y. Astrophysical Reaction Rate for F17(p,gamma)Ne18 from the Transfer Reaction C13(O17,O18)C12. *Phys Rev C*. 2014;89:025809
34. Reviol W, Janssens RVF, Frauendorf S, Sarantites DG, Carpenter MP, CHEN X, Chiara CJ, Hartley DJ, Hauschild K, Lauritsen T, Lopez-Martens A, Montero M, Pechenaya OL, Seweryniak D, Snyder JB, Zhu S. Characterization of Octupole-type Structures in ²²¹Th. *Phys Rev C*. 2014;90:044318
35. Button J, Lui YW, Youngblood DH, CHEN X, Bonasera G, Shlomo S. Isoscalar E0,E1,E2 and E3 Strength in ⁹⁴Mo. *Phys Rev C*. 2016;94:034315
36. Prior P, CHEN X, Gore E, Johnstone C, Li XA. Is Bulky Electron Density Assignment Appropriate for MRI-only Based Treatment Planning for Lung Cancer? *Medical Physics*. 2016;43(6):SU-F-J-162,3445
37. Prior P, CHEN X, Botros M, Paulson E, Lawton C, Erickson B, Li XA. MRI-based IMRT Planning for MR-linac: Comparison Between CT-based and MRI-based Plans for Pancreatic and Prostate Cancers. *Phys Med Biol*. 2016;61:3819-3842
38. CHEN X, Prior P, Chen G-P, Schultz CJ, Li XA. Technical Note: Dose Effects of 1.5T Magnetic Field on Tissue Interfaces in MRI-guided Radiotherapy. *Medical Physics*. 2016;43:4797-4802
39. Prior P, CHEN X, Gore E, Johnstone C, Li XA. Technical Note: Is Bulk Electron Density Assignment Appropriate for MRI-only Based Treatment Planning for Lung Cancer? *Medical Physics*. 2017;44(7):3437-3443

Non-Refereed Journal Publications/Original Papers

1. Zhou X, Sun X, Lei X, Jin H, Liu Z, Zhang Y, Pan Q, Guo Y, CHEN X, Luo Y, Wen S, Yuan G, Li G, Yang C. Study of Low-lying Level Structure in ¹⁹⁸Pb. *High Energy Physics and Nuclear Physics* 1994;18(28 Suppl) in Chinese
2. Sun X, Liu Z, Zhou X, Lei X, Jin H, Pan Q, Zhang Y, Guo Y, CHEN X, Luo Y, Wen S, Yuan G, Li G, Yang C. Observation of a Possible $I_{h11/2}$ Band of ¹¹⁷Cs. *High Energy Physics and Nuclear Physics* 1994;18(1 Suppl) in Chinese
3. Zhou X, Sun X, Guo Y, Lei X, CHEN X, Liu Z, Jin H, Luo Y, Wen S, Yuan G, Li G, Yang C. Excited States in Neutron-Deficient ¹⁹⁷Bi. *Chin J Nucl Phys*. 1995;4:328
4. Zhong L, Sun X, Zhou X, Lei X, Jin H, Guo Y, Pan Q, Zhang Y, CHEN X, Luo Y, Wen S, Yuan G, Li G, Yang C. Identification of Excited States in ¹¹⁷Xe. *High Energy Physics and Nuclear Physics*. 1995;19(2):106 in Chinese
5. Zhang Y, Zhou X, Zhao Q, Sum X, Lei X, Guo Y, Liu Z, CHEN X, Zhu Y, Wen S, Yuan G, Liu X. First Observation of Yrast Band in Odd-Odd N=91 ¹⁶²Lu Nucleus. *Chin J Nucl Phys*. 1995;17(3):250
6. CHEN X, Guo Y, Sun X, Lei X, Zhou X, Liu Z, Jin H, Liu M, Luo Y. The Apparatus for Lifetime Measurement with Recoil Distance Method. *Nuclear Electronic & Detection Technology*. 1996;16(4):246 in Chinese

Abstracts

1. Prior P, Botros M, CHEN X, Paulson E, Erickson B, Li XA. Feasibility of MRI-only Based IMRT Planning for Pancreatic Cancer. *Medical Physics*. 2014;41(6):SU-E-J-193,201
2. CHEN X, Prior P, Paulson E, Lawton C, Li XA. IMRT Planning of Prostate Cancer for a MRI-Linac Based on MRI Only. *Medical Physics*. 2014;41(6):SU-E-J-239,212
3. Prior P, CHEN X, Paulson E, Li XA. Effect of Electron Density Assignment on MRI-based IMRT Planning. *Int J Radiat Oncol Biol Phys*. 2014;90(1 Suppl)S933
4. CHEN X, Prior P, Schultz CJ, Li XA. Dose Effect of Transverse Magnetic Field on IMRT Plans Delivered in a MR-Linac. *Int J Radiat Oncol Biol Phys*. 2014;90(1 Suppl)S98
5. Prior P, CHEN X, Schultz C, Li XA. Dosimetric Effects at Air-Tissue Boundary due to Magnetic Field in MR-Guided IMRT/VMAT Delivery for Head and Neck Cancer. *Medical Physics*. 2015;42(6):SU-F-BRB-14,3532
6. CHEN X, Dalah E, Prior P, Lawton , Li XA. MRI-Based Planning: Dosimetric Feasibility of Dose Painting for ADC Defined Intra-Prostate Tumor. *Medical Physics*. 2015;42(6):SU-E-J-228,3318
7. CHEN X, Prior P, Chen GP, Schultz CJ, Li XA. Dose Effects of a 1.5T Magnetic Field on Air-Tissue and

Lung-Tissue Interfaces in MRI-Guided Radiotherapy. *Medical Physics*. 2016;43(6):SU-G-
JeP2-05,3660