KENNETH S. KRANE
Curriculum Vitae

Education:

1965	B.S., Physics, University of Arizona
1967	M.S., Physics, Purdue University
1970	Ph.D., Physics, Purdue University

Professional Employment:

1974-Present	Oregon State University, Department of Physics
1974-78	Assistant Professor
1978-84	Associate Professor
1984-2003	Professor
2003-Present	Professor Emeritus
1984-1998	Department Chair and Director of Engineering Physics Program
1993-94	Program Director for Physics, Division of Undergraduate Education, National Science Foundation
1980-81	Staff Member, Physics Division, Los Alamos National Laboratory (sabbatical)
1978	Visiting Professor, Oxford University
1972-74	Postdoctoral Research Associate, Lawrence Berkeley Laboratory
1970-72	Postdoctoral Research Associate, Los Alamos Scientific Laboratory
1966	Quality Control Officer, Philco Corporation
1965-70	Teaching and Research Assistant, Department of Physics, Purdue University
1962-65	Laboratory Assistant, Department of Physics, University of Arizona

Professional Societies:
American Physical Society, American Association of Physics Teachers, Sigma Xi

Honors and Awards:
American Association of Physics Teachers Distinguished Service Certificate, 2017
Alumnus of the Year, University of Arizona College of Science, 2014
Fellow (Inaugural Cohort), American Association of Physics Teachers, 2014
Eminent Professor, Oregon State University Honors College, 2008
Outstanding Professor, Oregon State University Honors College, 2008
Millikan Award for Creative Teaching of Physics, American Association of Physics Teachers, 2004
D. Curtis Mumford Faculty Service Award, Oregon State University, 1996
Alumni Distinguished Faculty Award, Oregon State University, 1993
Distinguished Alumnus Award, Purdue University, 1992
Fellow, American Physical Society, 1990
ORAU Summer Faculty Research Participant, 1983
Alfred P. Sloan Foundation Fellowship, 1976-1978
Senior Research Fellowship, Oxford University, 1978
NORCUS Summer Faculty Research Award, 1975
NASA Fellowship, 1966-1969
Listed in American Men and Women of Science, Who's Who in Technology Today
Phi Kappa Phi

Other Professional Activities:

National Science Foundation review panels: College Science Instrumentation Program, 1987; Instrumentation and Laboratory Improvement Program, 1988, 1991 (panel chair), 1993; Teacher Enhancement Program, 1993; Programs for Women and Girls, 1994; Science and Humanities Program, 1995; Course and Curriculum Development Program, 1996 (panel chair); Institution-wide Reform Program, 1997 (panel chair); Professional Opportunities for Women in Research and Education, 1998; Course, Curriculum, and Laboratory Improvement, 1999; Teacher Preparation, 2001; Distinguished Teaching Scholars, 2001, 2002, 2004; CCLI (panel chair), 2005.

Associate Editor, Hyperfine Interactions (research journal in nuclear and solid-state physics), 1984-98

Proposal reviewer for National Science Foundation, Department of Energy

Consultant, Los Alamos Scientific Laboratory, 1976-81

Legal consultant and expert witness in traffic accident reconstruction

Referee for Physical Review C, Physical Review Letters, American Journal of Physics, Hyperfine Interactions, Nuclear Physics, Applied Radiation and Isotopes

Panel member, Symposium on Textbook Content, APS Annual Meeting, San Francisco, January 1987

External thesis reviewer, Monash University (Australia), University of Leuven (Belgium), Oxford University (England)

Chair, UNISOR Executive Committee, 1988-90; Vice Chair, 1987-88

Chair and Director, UNISOR Workshop on Nuclear Orientation, June 1989

Chair and Director, Second UNISOR Workshop on Nuclear Orientation, July 1990

Chair, 2nd International Conference on On-Line Nuclear Orientation and Related Topics, 1991

Book review editor, Newsletter of the Forum on Physics and Society, 1992-95

Member, American Physical Society Committee on the Status of Women in Physics, 1992-95

Member, AAPT Committee on Physics in Graduate Education, 1994-97

Steering Committee, Conference on the Introductory Physics Course, May 1993

Associate Editor, School Science and Mathematics (journal for K-12 educators), 1995

Member, American Physical Society Committee on Education, 1994-97, 2001-04; Vice-chair, 1996; Chair, 1997

Steering Committee, American Physical Society Conference on Graduate Education, May 1995

Director, AAPT/APS/AAS Workshop for New Faculty, 1995-2006

Member, APS Maria Goeppert Mayer Award Committee, 1995-96

Steering Committee, APS/AAPT Physics Department Chairs Conference, 1997

Member, AIP Advisory Committee on Physics Education, 1998-2005 (chair, 2002-2004)

Organizing Committee, APS Northwest Section, 1998

Member-at-Large, APS Forum on Education Executive Committee, 1998-01

Steering Committee, Preparing Future Faculty Project, Council on Graduate Schools, 1998-2002.

Users' Executive Committee, Lawrence Berkeley National Laboratory Cyclotron, 1998-2002

Member, National Task Force on Undergraduate Physics, 1999-2005

Associate Editor, *American Journal of Physics*, 2000-2003

APS Forum on Education Vice-Chair (2000-01), Chair-Elect (2001-02), Chair (2002-03)

APS Northwest Section Vice-Chair (2003-04), Chair-Elect (2004-05), Chair (2005-06)

APS Education Award Selection Committee (2006-08); Vice-chair (2006-07); Chair (2007- 08)

AAPT Nominating Committee (2006)

External Visiting Committees: Southern Oregon University (1988); Purdue University (1998); Colorado School of Mines (2001); Utah State University (2001); Eastern Washington University (2001); Grand Valley State College (2001); Rutgers University (2001); University of Arizona (2002); Reed College (2002); University of Central Florida (2003); University of Texas – El Paso (2003); University of Northern Iowa (2004); Wabash College (2004); Notre Dame University (2005); Central Washington University (2005); Kent State University (2006); Berea College (2008); University of Central Florida (2010); Central Washington University (2010); Westmont College (2013); Central Washington University (2018)

University Service:

Condon Lecture Committee, 1980
College of Science Long-Range Planning Committee, 1981-82
OSU Computer Literacy Committee, 1982-83
College of Science Computer Committee, 1983
Chair, OSU Task Force on Personal Computers, 1983-84
Chair, Ad Hoc Committee on Instruction in Computing, 1984-86
Acting Dean of Science Search Committee, 1985-86
College of Science representative, Majestic Theater fund-raising committee, 1987-88
Baccalaureate Core Committee, 1988-89
Committee on Scientific Misconduct, 1988-89
Curriculum Council, 1989-93 (chair, 1991-93)
Accreditation Committee, 1989
Forest Engineering Graduate Program Review, 1989
College of Science Library Committee (chair), 1990, 1993
College of Science Ad Hoc Committee on Science and Math Education (chair), 1991
Faculty Consultative Group, 1991-92
Director, SMILE Physics and Math Summer Camp, 1991-96
Leadership Implementation Team Subcommittee on Outsourcing and Elimination, 1992-93
Committee on Faculty Productivity and Workload, 1993
TQM Key Team, 1993
Faculty Senate: Member, 1991-93; President-elect, 1995; President, 1996
HB3565 Articulation Group (statewide K-12 science education), 1992-93
Chair, Honors Council, 1994-96
College of Science Promotion and Tenure Committee, 1995 (chair), 1996 (chair), 1998 (chair)
Board of Directors, Center for the Humanities, 1995-98
Presidential Search Screening Committee, 1995
Faculty Senate Membership Task Force, 1997
Chair, Faculty Senate Task Force on Post-Tenure Review, 1997-98
Chair, Faculty Senate Committee on Bylaws and Nominations, 1997-98
Honorary Doctorate Committee, 1998-99
College of Science Dean's Advisory Council, 1998
Executive Board, OUS Oregon - Baden-Wuerttemberg Exchange Program, 1998-2000
Search Committee, Provost and Executive Vice President, 1999-2000
Graduate Student Union Negotiating Team, 2000
Advancement of Teaching Committee, 2000-03
University Honors College Board of Regents, 2010-2022

Other Service:

Science Advisory Panel, Corvallis School District, 1983-86
Awards and Finance Chairman, Corvallis Science-Math Expo, 1983-86
Board of Directors, Congregation Beit Am, 1982-85 (President, 1983-84), 2019-23 (Treasurer)
Board of Directors, OSU Retirement Association, 2004-07 (Vice-President, 2005-06; President, 2006-07)
Board of Directors, Jackson Street Youth Shelter, 2002-10 (Treasurer, 2006-10)
Board of Directors, Corvallis-OSU Piano International, 2005-13
Board of Directors, Corvallis-OSU Symphony Society, 2007-18 (President, 2010-13, 2014-15)

Research Grants and Contracts:

NORCUS Faculty Appointment, summer 1975, $3000
Cottrell Research Grant, Research Corporation, 1975-77, $6400
Fellowship, U.K. Science Research Council, 1978, $1000
Alfred P. Sloan Fellowship for Basic Research, 1977-79, $18,000
Instructional Scientific Equipment Program, National Science Foundation, 1977-80, $6600
"Perturbed Angular Correlations" (co-PI with J. A. Gardner), 1979-83, $232,000
"Medium Energy Nuclear Physics" (co-PI with L. W. Swenson and A. W. Stetz), National Science Foundation, 1983-86, $278,905; 1980-83, $211,522; 1977-80, $200,281
Oak Ridge Associated Universities Summer Faculty Appointment, 1983, $5000
"g-factor data compilations," Department of Energy, 1983-86, $35,000
"Nuclear Orientation at the Holifield Heavy-Ion Research Facility" (co-PI), Department of Energy, 1983-86, $149,000
NATO grant for international research collaboration, 1984-85, $4000
U.S.-U.K. Cooperative Science Grant, National Science Foundation, 1984-85, $5270
U.S.-U.K. Cooperative Science Grant, National Science Foundation, 1986-88, $5650
"Nuclear Orientation and Nuclear Structure," Department of Energy, 1997-2000, $365,000; 1993-96, $271,000; 1990-93, $207,000; 1987-90, $165,000
"Nuclear Physics Data Analysis System" (co-PI), National Science Foundation, 1988-89, $14,000
"Physics Graduate Fellowships," U.S. Department of Education, 1990-93, $300,000
"Young Scholars Physics and Math Summer Camp," National Science Foundation, 1995-97, $129,462; 1993-95, $111,063; 1991-93, $100,488
"Instructional Laboratories in Optics," M. J. Murdock Charitable Trust, 1991-94, $326,000
"Symposium on Graduate Study in Science for Undergraduate Women," National Science Foundation, 1993-96; $93,538; 1992, $21,293
"Workshops for Needs Assessment for Teacher Preparation in Oregon" (co-PI), National Science Foundation, 1995, $50,000
"Graduate Assistance in Areas of National Needs," U.S. Department of Education, 1995-98, $501,753; 1998-2001, $378,330
"Research Experiences for Undergraduates," National Science Foundation, 1996-98, $145,098
"Workshop for New Physics Faculty" (co-PI), National Science Foundation, 1996-99, $240,000
"The OSU PhysTEC Project," American Physical Society (subcontract), 2001-2006, $556,312
"Determination of Unknown Neutron Cross Sections for the Production of Medical Isotopes," Department of Energy (co-PI), 2001-03, $248,261
"Workshop for New Physics Faculty," National Science Foundation, 2002-07, $773,411
"Materials for Active Engagement in the Modern Physics Course," National Science Foundation, 2004-07, $198,088
"Materials for Active Engagement in Nuclear and Particle Physics Courses," (co-PI), National Science Foundation, 2011-14, $199,972

Graduate Research and Thesis Projects Supervised:

Jaser Shobaki, Ph.D., 1978
Hossam Ghaleb, M.S., 1980
Dong Xiao, M.S., 1985
Daniel E. Brown, M.S., 1987
Volker Rieckert, M.S., 1987
Yue-shu Xu, Ph.D., 1992
Mark Gummin, Ph.D., 1992
Brian Busse, Ph.D., 1997
Koorosh Zaerpoor, Ph.D., 1998
James Coburn, M.S., 1998
Maribel Rios, M.S., 1999
Joseph Elliot, M.S., 1989
Michael Dragowsky, Ph.D., 1999
Paul Schmelzenbach, Ph.D., 2003
Jeffrey Loats, Ph.D., 2004
C. J. Stapels, Ph.D., 2004
Pornrat Wattanakasiwich, Ph.D., 2005

Undergraduate Research and Thesis Projects Supervised:

Miriam Lambert (Honors), 2000
Jeremy Wolf, 2001
Skye Dorsett, 2001
Rachel Bartlett, 2002
Christopher Duncan, 2003
Robert Casperson, 2004
Werner Hager (Honors), 2004
Jeremy Sylvester, 2005
Micah Eastman, 2006
Ken Takahashi, 2008
Alex Dauenhauer, 2010
Sol Torrel, 2010
Allison Gicking, 2012
Nick Peterson, 2012
Mason Keck (Honors), 2012
Howard Dearmon, 2018

Kenneth S. Krane
Peer-reviewed Research Publications

1. "Determination of the E2/M1 Multipole Mixing Ratios of the Gamma Transitions in ^{110}Cd," K. S. Krane and R. M. Steffen, *Phys. Rev. C* **2**, 724 (1970).

2. "Experimental Test of the Kumar-Baranger Pairing-Plus-Quadrupole Force Model in the A = 190 Region Through E2-M1 Mixing Amplitudes," K. S. Krane and R. M. Steffen, *Phys. Rev. C* **3**, 240 (1971).

3. "Directional Correlation Measurements of the Gamma Rays Emitted in the Decay of ^{160}Tb," K. S. Krane and R. M. Steffen, Nucl. Phys. **A164**, 439 (1971).

4. "E2/M1 Mixing Ratios in the 'Spherical' Nuclei ^{124}Te, ^{126}Te, and ^{126}Xe," Z. W. Grabowski, K. S. Krane, and R. M. Steffen, *Phys. Rev. C* **3**, 1649 (1971).

5. "Nuclear Orientation Study of the Decay of ^{125}Sb," K. S. Krane, James R. Sites, and W. A. Steyert, *Phys. Rev. C* **4**, 565 (1971).

6. "Observation of 1.5% Parity-Nonconserving γ-Ray Asymmetry," K. S. Krane, C. E. Olsen, James R. Sites, and W. A. Steyert, *Phys. Rev. Letters* **26**, 1579 (1971).

7. "Electron-Capture and β^- Decay of ^{122}Sb Oriented in Iron," K. S. Krane, James R. Sites, and W. A. Steyert, *Phys. Rev. C* **4**, 1329 (1971).

8. "Ultralow Temperature Rotating Nuclear Polarization System," K. S. Krane, James R. Sites, and W. A. Steyert, *Rev. Sci. Instr.* **42**, 1475 (1971).

9. "E2/M1 Multipole Mixing Ratios of Gamma Transitions in the 'Quasi-spherical' Nucleus Xe^{132}," K. S. Krane and R. M. Steffen, *Phys. Rev. C* **4**, 1419 (1971).

10. "Parity-Violating Asymmetry of the 501 keV Gamma Ray Emitted in the Decay of ^{180m}Hf," K. S. Krane, C. E. Olsen, James R. Sites, and W. A. Steyert, *Phys. Rev. C* **4**, 1906 (1971).

11. "Parity Mixing and Nuclear Structure in the Decays from Oriented ^{153,159}Gd and ^{161}Tb," K. S. Krane, C. E. Olsen, James R. Sites, and W. A. Steyert, *Phys. Rev. C* **4**, 1942 (1971).

12. "Solid-Angle Correction Factors for Coaxial Ge(Li) Detectors," K. S. Krane, *Nucl. Instr. Methods* **98**, 205 (1972).

13. "Nuclear Structure and Parity Mixing in the Decays from Oriented ^{182}Ta," K. S. Krane, James R. Sites, and W. A. Steyert, *Phys. Rev. C* **5**, 1104 (1972).

14. "Parity-Violating and Normal Miltipole Mixing Ratios of the 57 keV Gamma Transition of ^{180}Hf," K. S. Krane, C. E. Olsen, and W. A. Steyert, *Phys. Rev. C* **5**, 1663 (1972).

15. "Nuclear Orientation Study of the Decay of ^{239}Np Polarized in $ZrFe_2$: Parity Mixing in ^{239}Pu and Nuclear Structure of ^{239}Pu and Fission Products ^{131,132,133}Xe," K. S. Krane, C. E. Olsen, and W. A. Steyert, *Phys. Rev. C* **5**, 1671 (1972).

16. "Nuclear Orientation Study of the Decays of ^{126,127,128}Sb," K. S. Krane and W. A. Steyert, *Phys. Rev. C* **6**, 2268 (1972).

17. "Parity Mixing and the Nuclear Structure of ^{183,184}W and Nuclear Spin-Lattice Relaxation Following the Decays of Oriented ^{183,184g,184m}Re," K. S. Krane, C. E. Olsen, and W. A. Steyert, *Phys. Rev. C* **7**, 263 (1973).

18. "Nuclear Orientation and Parity Mixing Studies of the Decays of ^{171}Er and ^{169,175}Yb," K. S. Krane, C. E. Olsen, and W. A. Steyert, *Nucl. Phys.* **A197**, 352 (1972).

19. "Directional Correlations of Gamma Radiations Emitted from Nuclear States Oriented by Nuclear Reactions or Cryogenic Methods," K. S. Krane, R. M. Steffen, and R. M. Wheeler, *Nuclear Data Tables* **11**, 351 (1973).

20. "Orientation Parameters for Low-Temperature Nuclear Orientation," Kenneth S. Krane, *Nuclear Data Tables* **11**, 407 (1973).

21. "Nuclear Orientation Studies of the Decays of ^{187}W and ^{135,191,193}Os," K. S. Krane and W. A. Steyert, *Phys. Rev. C* **7**, 1555 (1973).

22. "Approach to Magnetic Saturation of Impurities in Fe: Effects on Alignment, Perturbed Angular Correlations, and Mossbauer and -ray Thermometry," K. S. Krane, B. T. Murdoch, and W. A. Steyert, *Phys. Rev. Letters* **30**, 321 (1973).

23. "The Spin and Parity of the 1771.2 keV Excited State of ^{108}Pd," M. Behar, K. S. Krane, R. M. Steffen, and M. Bunker, *Nucl. Phys.* **A201**, 126 (1973).

24. "Solid-Angle Correction Factors for 'Five-Sided' Coaxial Ge(Li) Detectors," K. S. Krane, *Nucl. Instr. Methods* **109**, 401 (1973).

25. "E2/M1 Multipole Mixing Ratios of Gamma Transitions in Even-Even Deformed Nuclei," K. S. Krane, *Phys. Rev. C* **8**, 1494 (1973).

26. "Effect of Time Reversal Non-Invariance on Nuclear γ-Decay Observables," W. A. Steyert and K. S. Krane, *Phys. Letters* **47B**, 294 (1973).

27. "Enhanced-Sensitivity γ-γ Correlation Test of Time-Reversal Invariance in ^{180}Hf," B. T. Murdoch, C. E. Olsen, W. A. Steyert, and K. S. Krane, *Phys. Rev. Letters* **31**, 1514 (1973).

28. "Non-Alignment of the Magnetic Hyperfine Field of Ir in Fe," K. S. Krane and W. A. Steyert, *Phys. Rev. C* **9**, 2063 (1974).

29. "Apparent Absence of Electromagnetic and Strong Interaction Time-Reversal Violation of the Decay of ^{180m}Hf," K. S. Krane, B. T. Murdoch, and W. A. Steyert, *Phys. Rev. C* **10**, 840 (1974).

30. "Nuclear Orientation Study of the Decay of ^{177}Lu^{m}," K.S. Krane, C. E. Olsen, and W. A. Steyert, *Phys. Rev. C* **10**, 825 (1974).

31. "E2/M1 Multipole Mixing Ratios of 2'→ 2 Gamma Transitions in Even-Even Spherical Nuclei," K. S. Krane, *Phys. Rev. C* **10**, 1197 (1974).

32. "Nuclear Orientation Measurement of Parity Admixture in the 501-keV Gamma Transition in ^{180m}Hf," T. S. Chou, K. S. Krane, and D. A. Shirley, *Phys. Rev. C* **12**, 286 (1975).

33. "Gamma-Ray Angular Distributions and Parity Tests in the Decays of Polarized ^{173}Lu and ^{174}Lu^{m,g}," K. S. Krane, C. E. Olsen, S. S. Rosenblum, and W. A. Steyert, *Phys. Rev. C* **12**, 1999 (1975).

34. "E2/M1 Multipole Mixing Ratios in Even-Even Nuclei, A $\geq$ 152," K. S. Krane, *Atomic Data and Nuclear Data Tables* **16**, 383 (1975).

35. "Nuclear Orientation of ^{95,97}Nb and ^{95}Zr in $ZrFe_2$," K. S. Krane, C. E. Olsen, S. S. Rosenblum, and W. A. Steyert, *Phys. Rev. C* **13**, 831 (1976).

36. "Gamma-Ray Angular Distributions in the Decays of Polarized ^{171,172}Lu," K. S. Krane, C. E. Olsen, S. S. Rosenblum, and W. A. Steyert, *Phys. Rev. C* **13**, 1295 (1976).

37. "Nuclear Orientation of ^{76}As," J. A. Barclay, S. S. Rosenblum, W. A. Steyert, and K. S. Krane, *Phys. Rev. C* **13**, 1991 (1976).

38. "Beta-Decay Asymmetry from the Decay of Oriented ^{52}Mn," S. T. Hung, K. S. Krane, and D. A. Shirley, *Phys. Rev. C* **14**, 1162 (1976).

39. "The Nuclear Magnetic Moment of ^{59}Fe," K. S. Krane, S. S. Rosenblum, and W. A. Steyert, *Phys. Rev. C* **14**, 653 (1976).

40. "The Nuclear Magnetic Moment of ^{65}Ni," K. S. Krane, S. S. Rosenblum, and W. A. Steyert, *Phys. Rev. C* **14**, 650 (1976).

41. "Determination of the Nuclear Magnetic Moment of ^{175}Hf by Nuclear Orientation," K. S. Krane, S. S. Rosenblum, and W. A. Steyert, *Phys. Rev. C* **14**, 656 (1976).

42. "Nuclear Orientation of ^{97,103,105}Ru and ^{105}Rh," J. A. Barclay, S. S. Rosenblum, W. A. Steyert, and K. S. Krane, *Phys. Rev. C* **14**, 1183 (1976).

43. "E2/M1 Multipole Mixing Ratios of Odd-Mass Nuclei with A > 150," K. S. Krane, *Atomic Data and Nuclear Data Tables* **18**, 137 (1976).

44. "Angular Correlations in the Decay of ^{97}Ru," K. S. Krane and J. M. Shobaki, *Phys. Rev. C* **15**, 1589 (1977).

45. "Angular Correlation Measurements in the Decay of ^{105}Ru," K. S. Krane and J. M. Shobaki, *Phys. Rev. C* **16**, 1576 (1977).

46. "E2, M1 Multipole Mixing Ratios in Odd-Mass Nuclei, 59<A<149," K. S. Krane, *Atomic Data and Nuclear Data Tables* **19**, 363 (1977).

47. "Isomer Shift of the 2.164-MeV Gamma Transition in Muonic ^{208}Pb," E.B. Shera, M.V. Hoehn, L. K. Wagner, Y. Yamazaki, R. M. Steffen, and K. S. Krane, *Physics Letters* **67B** 26 (1977).

48. "E2, M1 Multipole Mixing Ratios in Even-Even Nuclei, 58$\leq$A$\leq$150," K. S. Krane, *Atomic Data and Nuclear Data Tables* **20**, 211 (1977).

49. "Angular Correlation Study of the Levels of ^{97}Nb Populated in the Decay of ^{97}Zr," K. S. Krane, *Nucl. Phys.* **A295**, 27 (1978).

50. "Coincidence Measurements of Quasielastic Pion Scattering by ^{27}Al and ^{208}Pb," L. W. Swenson, T. Sharma, K. Krane, P. Varghese, D. K. McDaniels, H. A. Thiessen, N. Tanaka, M. Greenfield, and C. F. Moore, *Phys. Rev. Letters* **40**, 10 (1978).

51. "Angular Correlation Measurements in the Decay of ^{71m}Zn," K. S. Krane, *Phys. Rev. C* **17**, 2213 (1978).

52. "Proton Yields from Quasielastic Pion Scattering on ^{27}Al and ^{208}Pb," T. Sharma, L. W. Swenson, K. Krane, P. Varghese, D. K. McDaniels, H. A. Thiessen, N. Tanaka, R. R. Silbar, M. Greenfield, and C. F. Morre, *Nucl. Phys.* **A333**, 461 (1980).

53. "E2, M1 Multipole Mixing Ratios in Nuclei with A$\leq$57," K. S. Krane, *Atomic Data and Nuclear Data Tables*, **22**, 269 (1978).

54. "Energetic Charged-Particle Spectrum Following μ^--Capture by Nuclei," K. S. Krane, T.C. Sharma, L. W. Swenson, D. K. McDaniels, P. Varghese, B. E. Wood, R. R. Silbar, H. D. Wohlfahrt, and C. A. Goulding, *Phys. Rev. C* **20**, 1873 (1979).

55. "Measurement of the M3/E2 Mixing Ratio of the 1173 keV -Transition in ^{60}Ni," K. S. Krane, J. R. Sites, H. A. Smith, and W. A. Steyert, *Nucl. Inst. Meth.* **169**, 573 (1980).

56. "Gamma-Ray Angular Correlations in the Decay of ^{131}Ba," K. S. Krane, *Nucl. Phys.* **A349**, 68 (1980).

57. "Angular Correlations in the Decays of ^{147,149}Eu," K. S. Krane, *Phys. Rev. C* **22**, 1254 (1980).

58. "The Falling Raindrop: Variations on a Theme of Newton," K. S. Krane, *Am. J. Phys.* **49**, 113 (1981).

59. "Probability, Statistics, and the World Series of Baseball," K. S. Krane, *Am. J. Phys.* **49**, 696 (1981).

60. "E2, M1 Multipole Mixing Ratios: Supplement and Corrections through December 1979," K. S. Krane, *Atomic Data and Nuclear Data Tables* **25**, 29 (1980).

61. "Nuclear Orientation of Rare-Earth Metals," K. S. Krane, G. L. Morgan, and J. D. Moses, *Hyperfine Interactions* **10**, 1171 (1981).

62. "Motional Correlation Time of Dilute ^{111}Cd Impurities in Liquid S and Se," D. K. Gaskill, J. A. Gardner, K. S. Krane, K. Krusch, and R. L. Rasera, *Hyperfine Interactions* **10**, 1023 (1981).

63. "Motional Correlation Time of Dilute ^{111}Cd Impurities in Se-Rich Liquid Se-Te Alloys," D. K. Gaskill, J. A. Gardner, K. S. Krane, K. Krusch, and R. L. Rasera, in *Nuclear and Electron Resonance Spectroscopies Applied to Materials Science*, edited by E. N. Kaufmann and G. K. Shenoy, p. 369 (1981).

64. "Nuclear Orientation Study of ^{166m}Ho," K. S. Krane and J. D. Moses, *Phys. Rev. C* **24**, 654 (1981).

65. "Nuclear Orientation of ^{191}Pt in Fe," W. M. Lattimer, K. S. Krane, N. J. Stone, and G. Eska, *J. Phys. G: Nucl. Phys.* **7**, 1713 (1981).

66. "Regression Line Analysis," K. S. Krane and L. Schecter, *Am. J. Phys*. **50**, 82 (1982).

67. "Nuclear Orientation of ^{160}Tb in Tb Metal," K. S. Krane, *Nucl. Phys.* **A377**, 176 (1982).

68. "Iterative Solutions of Transcendental Equations of Mathematical Physics with the Programmable Pocket Calculator," K. S. Krane, *Am. J. Phys*. **50**, 521 (1982).

69. "The Nuclear Magnetic Moment of ^{186}Ir," A. L. Allsop, S. Hornung, K. S. Krane, and N. J. Stone, *J. Phys. G: Nucl. Phys.* **8**, 857 (1982).

70. "Nuclear Orientation of ^{103}Ru: Reanalysis," K. S. Krane, *Phys. Rev. C* **27**, 411 (1983).

71. "Some Remarks Concerning Triple Angular Correlations," K. S. Krane, *Nucl. Instr. Meth*. **214**, 321 (1983).

72. "First Excited 0^+ State in ^{144}Nd," K. S. Krane, S. Raman, and F. K. McGowan, *Phys. Rev. C* **27**, 2863 (1983).

73. "Phase Transformation Study of Cu_2S," J. A. Gardner, D. K. Gaskill, M. Hirscher, H. Jaeger, K. S. Krane, and R. L. Rasera, *Hyperfine Interactions* **15**/**16**, 849 (1983).

74. "Dilute Impurity Hyperfine Fields in Fe, Co, Ni, Gd," K. S. Krane, *Hyperfine Interactions* **15**/**16**, 1069 (1983).

75. "Angular-Correlation Study of the Level Scheme of ^{193}Ir," H. H. Ghaleb and K. S. Krane, *Nucl. Phys.* **A426**, 20 (1984).

76. "Kinematically Complete Measurement of the ($\pi^{\pm}$,$\pi^{\pm}$p) Reaction on ^{12}C at 220 MeV," J. A. Faucett, B. E. Wood, D. K. McDaniels, P. A. M. Gram, M. E. Hamm, M. A. Oothoudt, C. A. Goulding, L. W. Swenson, K. S. Krane, A. W. Stetz, H. S. Plendl, J. Norton, H. Funsten, and D. Joyce, *Phys. Rev. C* **30**, 1622 (1984).

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28. "On-Line Nuclear Orientation Facility at UNISOR," I. C. Girit, K. S. Krane, J. H. Hamilton, D. Olive, E. F. Zganjar, J. D. Cole, B. D. Kern, H. K. Carter, M. L. Simpson, C. R. Bingham, G. D. Alton, D. Dowling, C. A. Reed, and W. B. Newbolt, Fifth International Conference on Nuclei Far From Stability, Rosseau Lake, Ontario, Canada, September 1987.

29. "UNISOR Nuclear Orientation Facility," I. C. Girit, J. H. Hamilton, K. S. Krane, H. K. Carter, M. L. Simpson, E. F. Zganjar, J. D. Cole, B. D. Kern, and C. R. Bingham, *Bull. Am. Phys. Soc.* **32**, 2145 (1987); APS Nashville Meeting, November 1987.

30. "The UNISOR On-Line Nuclear Orientation Facility," I. C. Girit, G. D. Alton, C. R. Bingham, H. K. Carter, M. L. Simpson, J. D. Cole, J. H. Hamilton, E. A. Jones, H. Xie, B. D. Kern, K. S. Krane, P. F. Mantica, Jr., W. B. Newbolt, and E. F. Zganjar, Workshop on On-Line Nuclear Orientation and Related Topics, Oxford, England, September 1988.

31. "On-Line Nuclear Orientation of ^{191,193}Hg," I. C. Girit, J. H. Hamilton, E. F. Jones, H. Xie, J. Kormicki, P. M. Gore, K. S. Krane, Y. S. Xu, E. F. Zganjar, M. O. Kortelahti, C. R. Bingham, B. D. Kern, W. G. Nettles, P. F. Mantica, Jr., B. E. Zimmerman, H. K. Carter, and G. J. Baker, *Bull. Am. Phys. Soc.* **33**, 1604 (1988); APS Sante Fe Meeting, October 1988.

32. "Angular Correlations of Gamma Rays in the Decay of ^{172}Er to ^{172}Tm," K. S. Krane, J. Elliott, and M. A. Gummin, *Bull. Am. Phys. Soc.* **34**, 1825 (1989); APS Asilomar Meeting, October 1989.

33. "On-Line Nuclear Orientation of ^{184}Au," Y.-S. Xu, K. S. Krane, M. A. Gummin, J. T. Elliott, H. K. Carter, I. C. Girit, D. Rupnik, E. F. Zganjar, J. L. Wood, P. F. Mantica, Jr., and B. E. Zimmerman, *Bull. Am. Phys. Soc.* **35**, 1657 (1990); APS Champaign-Urbana Meeting, October 1990.

34. "Building a Gender-Neutral Physics Department," K. S. Krane, *AAPT Announcer* **21**, 51 (1991); AAPT Vancouver Meeting, June 1991.

35. "Upper Limit on the Population of the Superdeformed Band of ^{192}Hg," P. K. Joshi, E. F. Zganjar, D. Rupnik, H. K. Carter, P. F. Mantica, L. Rayburn, M. Zhang, C. R. Bingham, J. Kormicki, J. H. Hamilton, H. Iimura, Y. Hatsukawa, W. Walters, M. Gummin, K. Krane, J. Breitenbach, M. Jarrio, and J. L. Wood, *Bull. Am. Phys. Soc.* **XX**, XXX (1994); APS Washington Meeting, April 1994.

36. "A New Teaching Apprentice Program," K. S. Krane, *AAPT Announcer* **25**, 47 (1995); AAPT Reno Meeting, January 1996.

37. "Gamma Ray Transitions in ^{180}Ta," R.-M. Larimer, Y. D. Chan, M. P. Isaac, K. T. Lesko, A. O. Macciaveli, R. W. MacLeod, M. E. Moorhead, E. B. Norman, K. Krane, K. Zaerpoor, J. Becker, L. A. Bernstein, and L. P. Farris, *Bull. Am. Phys. Soc.* **41**, 985 (1996); APS Indianapolis Meeting, May 1996.

38. "On the Cosmic-Ray Half Life of ^{54}Mn," Y. D. Chan, D. E. DiGregorio, M. R. Dragowsky, M. M. Hindi, M. C. P. Isaac, K. S. Krane, R. M. Larimer, A. O. Macchiavelli, R. W. MacLeod, P. Miocinovic, E. B. Norman, and K. Zaerpoor, 25th International Cosmic Ray Conference, Durban, South Africa, July 1997.

39. "On the Cosmic-Ray Half Life of ^{144}Pm," Y. D. Chan, D. E. DiGregorio, M. R. Dragowsky, M. M. Hindi, M. C. P. Isaac, K. S. Krane, R. M. Larimer, A. O. Macchiavelli, R. W. MacLeod, P. Miocinovic, E. B. Norman, S. J. Robinson, and K. Zaerpoor, 25th International Cosmic Ray Conference, Durban, South Africa, July 1997.

40. "Cosmic-Ray Half Life of ^{54}Mn," K. Zaerpoor, M. R. Dragowsky, K. S. Krane, Y. D. Chan, M. C. P. Isaac, R. M. Larimer, A. O. Macchiavelli, R. W. MacLeod, E. B. Norman, D. E. DiGregorio, M. M. Hindi, and P. Miocinovic, *Bull. Am. Phys. Soc.* **42**, 1656 (1997); APS Vancouver Meeting, October 1997.

41. "Cosmic-Ray Half Life of ^{144}Pm," E, B. Norman, Y. D. Chan, M. C. P. Isaac, R. M. Larimer, A. O. Macchiavelli, R. W. MacLeod, M. R. Dragowsky, K. S. Krane, K. Zaerpoor, D. E. DiGregorio, M. M. Hindi, S. J. Robinson, and P. Miocinovic, *Bull. Am. Phys. Soc.* **42**, 1655 (1997); APS Vancouver Meeting, October 1997.

42. "Angular Correlations in ^{144}Nd using Gammasphere," S. J. Robinson, M. M. Hindi, E. B. Norman, Y. D. Chan, M. C. P. Isaac, R. M. Larimer, A. O. Macchiavelli, R. W. MacLeod, D. E. DiGregorio, M. R.

Dragowsky, K. S. Krane, K. Zaerpoor, and P. Miocinovic, *Bull. Am. Phys. Soc.* **42**, 1659 (1997); APS Vancouver Meeting, October 1997.

43. "Nuclear Orientation at TRIUMF-ISAC," P. P. J. Delheij, C. A. Davis, J. D'Auria, K. P. Jackson, R. Kiefl, A. Kotlicki, K. S. Krane, J. Pond, and B. Turrell, *Bull. Am. Phys. Soc.* **42**, 1661 (1997); APS Vancouver Meeting, October 1997.

44. "The Cosmic-Ray Half-Life of ^{56}Ni," K. Zaerpoor, M. R. Dragowsky, K. S. Krane, Y. D. Chan, M. C. P. Isaac, R. M. Larimer, A. O. Macchiavelli, R. W. Macleod, and E. B. Norman, *Bull. Am. Phys. Soc.* **43**, 1157 (1998); APS/AAPT Columbus, OH, Meeting, April 1998.

45. "Thermal Neutron Capture Cross Sections of ^{44}Ti, ^{68}Ge, and ^{148}Gd," K. S. Krane, M. Rios, R. Ejnisman, I. D. Goldman, R. R. P. Teixeira, Y. Nakazawa, E. B. Norman, and J. Reel, *Bull. Am. Phys. Soc.* **43**, 1592 (1998); APS Santa Fe Meeting, October 1998.

46. "The Neutron Capture Cross Section of ^{44}Ti," R. Ejnisman, I. D. Goldman, K. S. Krane, Y. Nakazawa, E. B. Norman, and J. Reel, 2nd Oak Ridge Symposium on Atomic and Nuclear Astrophysics, December 1997.

47. "Cosmic Ray History Derived from the ^{54}Mn, ^{56}Ni, and ^{144}Pm Chronometers," K. Zaerpor, Y. D. Chan, D. E. DiGregorio, M. R. Dragowsky, M. M. Hindi, M. C. P. Isaac, K. S. Krane, R. M. Larimer, A. O. Macchiavelli, R. W. Macleod, P. Miocinovic, E. B. Norman, and S. J. Robinson, International Conference on Nuclear Physics (Paris, August 1998).

48. "A Comprehensive Program to Prepare Graduate Students for Careers in College or University Teaching," K. S. Krane, APS/NW Section Meeting, Vancouver BC, May 1999.

49. "Measurement of Thermal Neutron Capture Cross Sections of Radioactive Nuclei by Activation," K. S. Krane and E. B. Norman, APS/NW Section Meeting, Vancouver BC, May 1999.

50. "Test of the Low Temperature Nuclear Orientation setup at TRIUMF-ISAC," P. P. J. Delheij, C. A. Davis, A. Kotlicki, K. S. Krane, P. F. Mantica, J. Pond, B. G. Turrell, A. Waterhouse, J. Wood, APS/NW Section Meeting, Vancouver BC, May 1999.

51. "Nuclear Collective Motion in the N=90 Isotones ^{152}Sm, ^{154}Gd, and ^{156}Dy," W. D. Kulp, B. MacDonald, J. L. Wood, M. R. Dragowsky, K. S. Krane, J. Loats, P. Schmelzenbach, C. J. Stapels, R.-M. Larimer, E. B. Norman, A. Piechaczek, *Bull. Am. Phys. Soc.* **44**, 63 (1999); APS Division of Nuclear Physics Meeting, Asilomar, CA, October 1999.

52. "Thermal Neutron Capture Cross Sections of ^{166}Ho and ^{166m}Ho," K. S. Krane and C. J. Stapels, *Bull. Am. Phys. Soc.* **45**, 37 (2000); APS Long Beach Meeting, April 2000.

53. "Identification of Shape Coexistence in the N = 90 Isotones: ^{154}Gd and ^{156}Dy," W. D. Kulp, J. L. Wood, K. S. Krane, J. Loats, P. Schmelzenbach, C. J. Stapels, E. B. Norman, and R.-M. Larimer, APS DNP Meeting, Williamsburg VA, October 2000.

54. "Precision Test of One-Parameter Band Mixing in ^{166}Er from the decays of ^{166m}Ho (1200 y) and ^{166}Tm (7.7 h)," P. Fatemi, W. D. Kulp, J. W. Wood, K. S. Krane, J. Loats, P. Schmelzenbach, C. J. Stapels, R.-M. Larimer, and E. B. Norman, APS DNP Meeting, Williamsburg VA, October 2000.

55. "Weak Decay Branches and Identification of Shape Coexistence in ^{152}Sm." J. L. Wood, W. D. Kulp, K. S. Krane, J. Loats, P. Schmelzenbach, C. J. Stapels, R. M. Larimer, and E. B. Norman, APS DNP Meeting, East Lansing, MI, October 2002.

56. “Some Practical Experiences Using a PRS System in Large and Small Classes,” K. S. Krane, Annual Winter Meeting of the AAPT, Austin TX, January 2003.

57. “Students' Classical Mode of Thinking in the Modern Physics Classroom,” Pornrat Wattanakasiwich and K. S. Krane, Annual Summer Meeting of the AAPT, Madison WI, August 2003.

58. “The Angular Correlation Effect in Gamma-Ray Coincidence Summing,” W. Hager and K. Krane, Annual Meeting of the Northwest Section of the APS, Pullman WA, May 2004.

59. “Students’ Conceptions about Probability in a Double-Slit Experiment for Electrons,” P. Wattanakasiwich and K. Krane, Annual Summer Meeting of the AAPT, Sacramento CA, August 2004.

60. “An Investigation of ^{154}Eu as a High-Precision Multi-γ-Ray Intensity Calibration Standard for Detector Arrays,” W. D. Kulp, J.L. Wood, K. S. Krane, J. Loats, P. D. Schmelzenbach, C. J. Stapels, and E. B . Norman, International Conference on Nuclear Data for Science and Technology, Sante Fe NM, September 2004.

61. “Modeling Student Understanding of Probability,” P. Wattanakasiwich and K. Krane, Annual Meeting of the Northwest Section of the APS, Victoria BC, May 2005.

62. “Neutron Capture Cross Sections of Tin Isotopes,” J. Sylvester and K. Krane, Annual Meeting of the Northwest Section of the APS, Victoria BC, May 2005.

63. “Neutron Capture Cross Sections of Tellurium Isotopes,” M. Eastman and K. S. Krane, Annual Meeting of the Northwest Section of the APS, Tacoma WA, May 2006.

64. “Shape Coexistence in Transitional Nuclei,” W. D. Kulp, P. Schmelzenbach, J. L. Wood, J. M. Allmond, K. S. Krane, J. Loats, C. J. Stapels, and E. B. Norman, APS DNP Meeting, Newport News VA, October 2007.

65. "Measurement of Neutron Capture Cross Sections of Selenium Isotopes, " H. D. Dearmon and K. S. Krane, Annual Meeting of the Northwest Section of the APS, Corvallis OR, October 2011.

66. “Neutron Capture by Cadmium: Thermal Cross Sections and Resonance Integrals of ^{106,108,110,112,114,116}Cd,” A. M. Gicking and K. S. Krane, Annual Meeting of the Northwest Section of the APS, Corvallis OR, October 2011.

67. “SPIN-UP Regional Workshops: Enhancing Undergraduate Physics Programs,” R. Hilborn, R. Howes, K. Krane, March Meeting of the APS, Baltimore MD, March 2013.

Invited Conference Talks

1. "Symmetry Experiments at Low Temperature," Workshop on Low-Temperature Nuclear Orientation, Bonn, June 1980.

2. "Experiments with Oriented Nuclei," Meeting of the Southeastern Section of the American Physical Society, Lexington, October 1982.

3. "Nuclear Spectroscopy from On-Line Nuclear Orientation," Eighth Conference on the Application of Accelerators in Research and Industry, Denton, Texas, November 1984.

4. "On-Line Nuclear Orientation," Eleventh International Conference on Electromagnetic Isotope Separators and Techniques Related to Their Applications, Los Alamos, August 1986.

5. "Nuclear Spectroscopy with Oriented Nuclei," Symposium on Nuclear Spectroscopic Quantities--Their Determination and Use, Annual Meeting of American Chemical Society, Anaheim, September 1986.

6. "Electromagnetic Moments of Odd-A Deformed Nuclei," International Conference on Nuclear Structure Through Static and Dynamic Moments, Melbourne, Australia, August 1987.

7. "Nuclear Orientation and Nuclear Structure," Workshop on On-Line Nuclear Orientation and Related Topics, Oxford, England, September 1988.

8. "Nuclear Physics at Ultralow Temperatures," Annual Fall Meeting of the Oregon Section of the AAPT, Corvallis, October 1988.

9. "Accommodating International Scholars," Conference of the National Association of Foreign Student Advisors, Portland, May 1989.

10. "Recruitment of Female Graduate Students in Physics," Conference on the Recruitment and Retention of Women in Physics, Washington DC, November 1990.

11. "On-Line Nuclear Orientation at UNISOR," Symposium on Recent Advances in Nuclear Structure Research, American Chemical Society, Atlanta, April 1991.

12. "Building a Gender-Neutral Physics Department," Annual Summer Meeting of the AAPT, Vancouver, June 1991.

13. "Recent Developments in On-Line Nuclear Orientation: Review and Summary," Second International Conference on On-Line Nuclear Orientation and Related Topics, Oak Ridge, October 1991.

14. "Studying Low-Level Nuclear Structure using the Nuclear Orientation Facility," Workshop on Experimental Apparatus for the Holifield RIB Facility, Oak Ridge, October 1992.

15. "Future of Text and Electronic Publishing," Conference on the Introductory Physics Course, Troy, NY, May 1993.

16. "Heavy-Ion Reactions, Nuclear Spectroscopy, and Nuclear Orientation," American Chemical Society, Chicago, August 1993.

17. "Materials Science Studies Using On-Line Nuclear Orientation," American Chemical Society, Chicago, August 1993.

18. "Experiments with Oriented Nuclei," Workshop on Using Radioactive Beams and ISAC-1, Vancouver, BC, September 1995.

19. "Nuclear Structure and Low-Temperature Nuclear Orientation," Workshop on Experiments and Equipment at Isotope Separators, Vancouver, BC, April 1997.

20. "New Faculty: Experiences and Concerns," Annual Summer Meeting of the AAPT, Denver, August 1997.

21. "The AAPT New Faculty Conference," Annual Joint Meeting of APS/AAPT, Columbus, OH, April 1998.

22. "The AAPT New Faculty Workshop," Annual Summer Meeting of the AAPT, Lincoln, August 1998.

23. "Good Teaching Makes Good Research," APS Centennial Meeting, Atlanta, March 1999; Bull. Am. Phys. Soc. **44**, 413 (1999).

24. "Thermal Neutron Capture Cross Sections of Long-Lived Nuclei Measured by Activation," 10th International Symposium on Capture Gamma Rays and Related Topics, Sante Fe, NM, August 1999.

25. "The Oregon State University PhysTEC Project," Annual Winter Meeting of the AAPT, Philadelphia, January 2002.

26. "The SPIN-UP Survey of Undergraduate Physics Programs," Annual Summer Meeting of the AAPT, Boise, August 2002.

27. "Workshop for New Faculty in Physics and Astronomy: An Overview," Annual Meeting of the AAS, Nashville, TN, May 2003.

28. "The Characteristics of Thriving Undergraduate Physics Programs: What We Have Learned from Project SPIN-UP," Annual Meeting of the APS Northwest Section, Portland, OR, May 2003.

29. "Review of Survey Data," AIP Academic-Industrial Workshop, San Jose, CA, October 2003.

30. "The Need for Reform," Introductory Calculus-Based Physics Conference, Arlington, VA, October-November, 2003.

31. "Preparing Physics and Astronomy Faculty to be Successful Teachers," Annual Meeting of the Northwest Section of the APS, Pullman WA, May 2004.

32. "The Challenges of Teaching Modern Physics," AAPT Millikan Award Lecture, Annual Meeting of the AAPT, Sacramento CA, August 2004.

33. "Preparing New Faculty to Teach Physics," Annual Meeting of the AAAS, Washington DC, February 2005.

34. "Nuclear Physics in the 20th Century," Annual Meeting of the AAPT, Salt Lake City UT, August 2005.

35. "Maintaining the Story Line: How to Build a Coherent Physics Course," Annual Meeting of the AAPT, Syracuse NY, July 2006.

36. "Linking Undergraduate STEM Education to the Workforce – What Physics Departments Have Done, Can Do, and Should Do," First Symposium on Physics Education, Annual Meeting of the AAPT, Seattle WA, January 2007.

37. “Making a Modern Physics Textbook: The Collision of Full-Time Commitments,” Linus Pauling and his Era: The Scientist as Educator and Public Citizen, Corvallis OR, October 2007.

38. “The Workshop for New Faculty in Physics and Astronomy,” National Academy of Sciences Workshop on Linking Evidence and Promising Practices in STEM Undergraduate Education, Washington DC, October 2008.

39. “A Dozen Years and a Thousand Participants: The Workshops for Preparing New Faculty in Physics and Astronomy,” APS March Meeting, Pittsburgh PA, March 2009.

40. “A National Workshop in the United States to Prepare New Faculty in Physics and Astronomy,” International Conference on Physics Education, Bangkok, Thailand, October 2009.

41. “Halliday-Resnick Plus 50,” APS Northwest Section, Corvallis OR, October 2011.

42. “The Workshops for New Faculty in Physics and Astronomy,” Council of Scientific Society Presidents Meeting, Washington DC, May 2012.