

Dermott E. Cullen

May 2025

Home Address

1466 Hudson Way
Livermore, CA 94550

tele: 925-443-1911

cell: 925-321-4177

home e. mail: redcullen1@comcast.netpersonal website: <http://RedCullen1.net/HOMEPAGE.NEW>**Work Address**

retired March 2009 from,
University of California
Lawrence Livermore National Laboratory

Date and Place of Birth

November 22, 1939 Brooklyn, New York

Education

Bachelor of Science, August 1961 (Marine Engineering), U.S. Merchant Marine Academy

Master of Science, January 1964 (Nuclear Science and Engineering) Columbia University

Doctor of Engineering Science, September 1969 (Nuclear Science and Engineering) Columbia University.

Thesis

"Numerical Solution of the Linear Integral Boltzmann Transport Equation"

Thesis Advisors

Professors Herbert Goldstein and Leon J. Lidofsky

Honors

Dean's List, Graduated Cum Laude (1961).

Certificate for Outstanding Achievement in Graduate Studies (1964).

Paper Presentation Award, American Nuclear Society Student Conference (1966).

Elected to Kappa Chapter, Sigma Xi (1967).

Director of winter workshops on nuclear physics and reactor engineering, International Centre for Theoretical Physics, Trieste, Italy (1980-2009).

Advisory Editor, Nuclear Science and Engineering (1989-present)

Associate Editor, Radiation Physics and Chemistry (2006-present)

Professional Experience

1961-1962 Third Assistant Engineer, U.S. Merchant Marine

1963-1964 Third Assistant Engineer, U.S. Merchant Marine (summers)

1963-1964 Instructor, Electrical Engineering, U.S. Merchant Marine Academy, King's Point, New York

1966-1967 Nuclear Consultant, Charles F. Bonilla & Associates, Tenafly, New Jersey

1967-1968 Assistant Physicist, National Neutron Cross Section Center, Brookhaven National Laboratory, Upton, New York

1968-1972 Associate Physicist, National Nuclear Cross Section Center, Brookhaven National Laboratory, Upton, New York

1972-1972 Physicist, National Nuclear Cross Section Center, Brookhaven National Laboratory, Upton, New York

1972-1979 Physicist, Lawrence Livermore Laboratory, Livermore, California

1979-1987 Physicist, International Atomic Energy Agency, Vienna, Austria

1987-2009 Physicist, Lawrence Livermore Laboratory, Livermore, California

2009 Present Retired

Professional Societies

Sigma Xi

American Nuclear Society

American Association for the Advancement of Science

New York Academy of Science

Research Reports and Publications

1. "RIGEL - A Code to Retrieve ENDF/B Data," BNL-50300, ENDF-110, (TID-4500) (1970).
2. "PLOTFB - A Code to List or Plot ENDF/B Data," BNL-50300, ENDF-100, (TID-4500) (1970).
3. "DICTION - A Code to Prepare Random Access Pointers for ENDF/B Data," in BNL-110, ENDF-110 (TID-4500) (1970).
4. "Angular Distribution in Neutron Induced Reactions - Third Edition, Vol. I," BNL-400 (EANDC(US)-128 "U") (1971).
5. "Angular Distribution in Neutron Induced Reactions - Third Edition, Vol. II," BNL-400 (EANDC(US)-138 "U") (1971).
6. "Graphic Displays in Cross Section Evaluation," PDP Applications in Science 2, Digital Equipment Corporation, Maynard, Massachusetts (1971).
7. "Relaxation Techniques Applied to Integral Transport Problems," BNL-16419 (1972).
8. "Closing the Pn Equations Using an Integral Equation," BNL-16479 (1972).
9. "SCOPE - The ENDF/B Interactive Graphics System," BNL-16700 (1972).
10. "Application of the Probability Table Method of Multi-Group Calculations," BNL-17000 (1972).
11. "IRT - The Experimental Cross Sections Interactive Graphics Systems," BNL-17115 (1972).
12. "ENDF/B Cross Sections," BNL-17100 (ENDF-200) (1972).
13. "Numerical Solution of the Linear Integral Boltzmann Equation, Part I: Critical Problems," BNL-16399A (1972).
14. "Numerical Solution of the Linear Integral Boltzmann Equation, Part II: Source Problems," BNL-16399B (1972).
15. with O. Ozer and C.R. Weisbin "Exact Doppler Broadening of Evaluated Neutron Cross Section," Trans. Amer. Nuc. Soc. 16, p. 320 (1973).
16. "Conservation During Doppler Broadening," Nuc. Sci. and Eng. 52, p. 498 (1973).
17. with E. Plechaty "Calculation of Resonance Self-Shielding in Pu239," Lawrence Livermore Laboratory Report UCIR-710, 1973.
18. with E. Plechaty "Calculation of Resonance Self-Shielding in U235," Lawrence Livermore Laboratory Report UCIR-711, 1973.
19. with C.R. Weisbin "Determination of Multi-Group Weighting Spectra and Cross Sections," Trans. Amer. Nucl. Soc. 17, p. 488 (1973).
20. with E. Plechaty "Calculation of Resonance Self-Shielding in Pu239 and U235," Trans. Amer. Nucl. Soc. 17, p. 488 (1973).
21. with C.R. Weisbin, J.S. Hendricks, E.M. Oblo and P.O. Soran "Multi-Group Cross Section Dependence on Weighting Function Model," Trans. Amer. Nucl. Soc. 17, p. 483 (1973).

22. "Application of the Probability Table Method to Multi-Group Calculations," BNL-50387 (ENDF-187), Brookhaven, New York (1973).
23. "Program SIGMA1 (Version 74-1)," Lawrence Livermore Laboratory Report UCID-16426, January 1974.
24. with E. Plechaty "Calculation of Resonance Self-Shielding in Pu239," Lawrence Livermore Laboratory Report UCID-16433, January 1974.
25. with R.J. Howerton and S.T. Perkins "ECSIL, A System for Storage, Retrieval and Display of Experimental Neutron Data," Lawrence Livermore Laboratory Report UCRL-50400, Vol. 1 March 1974.
26. with T. Perkins, R. Haight, R. Howerton and M. MacGregor "A Bibliography of the Experimental Data of Neutron-Induced Reactions," Lawrence Livermore Laboratory Report UCRL-50400, Vol. 2, March 1974.
27. with T. Perkins, R. Haight, R. Howerton and M. MacGregor "An Index of the Experimental Data of Neutron-Induced Reactions," Lawrence Livermore Laboratory Report UCRL-50400, Vol. 3 March 1974.
28. with R. Haight, R. Howerton, M. MacGregor and T. Perkins "Graphical Experimental Data for Major Neutron-Induced Interaction," Lawrence Livermore Laboratory Report UCRL-50400, Vol. 7, Parts A & B, April 1974.
29. "Application of the Probability Table Method to Multi-Group Calculations," Nuc. Sci. and Eng. 56, p. 387-400, (1974).
30. with R. Haight, R. Howerton, M. MacGregor and T. Perkins "Graphical Experimental Data for Supplement Neutron-Induced Interactions," Lawrence Livermore Laboratory Report UCRL-50400, Vol. 8, Parts A & B, October 1974.
31. "Numerical Solution of the Linear Integral Boltzmann," Nuc. Sci. and Eng. 53, p. 93-106 (1974).
32. with C.R. Weisbin "Fast Reactor Cross Section Processing Codes -- Is there a Dollar Worth of Difference Between Them?" Advance Reactors: Physics Design and Economics, Eds. J.M. Kallfelz and R.A. Karam, Pergamon Press, Oxford, p. 468-490 (1975).
33. with R. Haight, R. Howerton, M. MacGregor and S. Perkins "Tabulated Experimental Data for Neutron-Induced Reactions," Lawrence Livermore Laboratory Report UCRL-50400, Vol. 10, Rev. 1, November 1974.
34. "Application of the Probability Table Method to Multi-Group Calculations of Neutron Transport," Nucl. Sci. and Eng. 55, p. 387-400 (1974).
35. with E. Plechaty and R. Howerton "Tabular and Graphical Presentation of 175 Neutron Group Constants Derived from the LLL Evaluated Neutron Data Library (ENDL)," Lawrence Livermore Laboratory Report UCRL-50400, Vol. 16, January 1975.
36. with C. Weisbin, R. Wright and J. White "Comparison of Doppler Broadening Methods," Lawrence Livermore Laboratory Report UCRL-76628, Washington, D.C., March 1975.
37. with O. Ozer and C. Weisbin "Tabular Cross Section File Generation and Utilization Techniques," Lawrence Livermore Laboratory Report UCRL-76629, Washington, D.C., March 1975.
38. "Comments on Influence of Deep Minima on Multi-Group Cross Sections," Nuclear Science and Engineering 58, p. 261 (1975).
39. with C.R. Weisbin "Exact Doppler Broadening of Tabulated Cross Sections," Nuclear Science and Engineering 60, p. 199 (1975)

40. with R. Howerton, R. Haight, M. MacGregor, T. Perkins, and E. Plechaty "The LLL Evaluated Nuclear Data Library (ENDL): Evaluated Techniques, Reaction Index and Description of Individual Evaluations," Lawrence Livermore Laboratory Report UCRL-50400, Vol. 15A, September 1975.
41. with E. Plechaty and R. Howerton "Tables and Graphs of Photon Interaction Cross Sections from 1.0 keV to 100 MeV Derived from the LLL Evaluated Library (ENDL)," Lawrence Livermore Laboratory Report UCRL-50400, Vol. 6, Rev. 1, October 1975.
42. "Comments on Resonance Region Analysis Without Resonance Parameters," Lawrence Livermore Laboratory Report UCRL-78080, April 1976.
43. with E. Plechaty, R. Howerton and J. Kimlinger "Tabular and Graphical Presentation of 175 Neutron Group Constants Derived from LLL Evaluated Neutron Data Library (ENDL)," Lawrence Livermore Laboratory Report UCRL-50400, Vol. 16, Rev. 1, April 1976.
44. with R. Howerton, M. MacGregor, T. Perkins, and E. Plechaty "Graphical Presentation of Cross Sections from the LLL Evaluated Neutron Data Library (ENDL)," Lawrence Livermore Laboratory Report UCRL-50400, Vol. 15B, April 1976.
45. "Direct Calculation of Cross Section Probability tables," Trans. Amer. Nucl. Soc. 23, p 526 (1976).
46. with E. Plechaty "Resonance Self-Shielding Calculations Using the Probability Table Method," Lawrence Livermore Laboratory Report UCID-17230, August 1976.
47. with M. MacGregor, R. Howerton and T. Perkins "An Integrated System...A Bibliography of the Experimental Data of Neutron - Induced Interactions," Lawrence Livermore Laboratory Report UCRL-50400, Vol. 2, July 1976.
48. with M. MacGregor, R. Howerton and T. Perkins "An Integrated System...An Index of the Experimental Data of Neutron - Induced Interactions," Lawrence Livermore Laboratory Report UCRL-50400, Vol. 3, July 1976.
49. with R. Howerton, M. MacGregor and T. Perkins "An Integrated System...Graphical Experimental Data for Major Neutron-Induced Interactions ($Z < 55$)," Lawrence Livermore Laboratory Report UCRL-50400, Vol. 7A, July 1976.
50. with R. Howerton, M. MacGregor and T. Perkins "An Integrated System...Graphical Data for Major-Induced Interactions ($Z \geq 55$)," Lawrence Livermore Laboratory Report UCRL-50400, Vol. 7B, July 1976.
51. with R. Howerton, M. MacGregor and T. Perkins "An Integrated System...Graphical Experimental Data for Supplemental Neutron-Induced Interactions ($Z < 55$)," Lawrence Livermore Laboratory Report UCRL-50400, Vol. 7B, July 1976.
52. with R. Howerton, M. MacGregor and T. Perkins "An Integrated System...Graphical Experimental Data for Supplemental Neutron-Induced Interactions ($Z \geq 55$)," Lawrence Livermore Laboratory Report UCRL-50400, Vol. 8B, July 1976.
53. with M. MacGregor and T. Perkins "An Integrated System...Neutron-Induced Interactions: Tabulated Experimental Data," Lawrence Livermore Laboratory Report UCRL-50400, Vol. 10, July 1976.
54. with K. Hill, R. Howerton and T. Perkins "An Integrated System for Production of Neutronics and Photonics Calculated Constants," Lawrence Livermore Laboratory Report UCRL-50400, Vol. 1, September 1976.
55. "Program SIGMA1: Doppler Broaden Evaluated Data in the ENDF/B Format (Version 76-2)," Lawrence Livermore Laboratory Report UCRL-50400, Vol. 17B, January 1977.

56. "Program LINEAR: Linearize Evaluated Data in the ENDF/B Format (Version 76-2)," Lawrence Livermore Laboratory Report UCRL-50400, Vol. 17A, January 1977.
57. with R.J. Howerton, M. MacGregor, and T. Perkins "Neutron Induced Angular Energy Distributions: Graphical Experimental Data," Lawrence Livermore Laboratory Report UCRL-50400, Vol. 19, April 1977.
58. with C.R. Weisbin "The Role of "Standard" Fine Group Cross Section Libraries in Shielding Analysis," Proc. of Fifth International Conference on Reactor Shielding, p. 472, Knoxville, Tennessee, April 1977.
59. with E. Plechaty and L. Levitt (Brookhaven) "Applications of the Probability Table Method to Practical Problems," Lawrence Livermore Laboratory Report UCRL-79759, San Francisco, CA, December 1977.
60. "Calculation of Probability Table Parameters to Include Intermediate Resonance Self-Shielding," Lawrence Livermore Laboratory Report UCRL-79761, San Francisco, CA, December 1977.
61. with S.T. Perkins "Multigroup Constants for Charged Particle Elastic Nuclear (Plus Interference)," Lawrence Livermore Laboratory Report UCRL-17564, August 1977.
62. with E.F. Plechaty, R.J. Doyas, C.R. Weisbin and J.E. White "Cross Section Probability Tables in Multigroup Transport Calculations," Lawrence Livermore Laboratory Report UCRL-80655, Livermore, CA, March 1978.
63. "Definition of Two Band Parameters for Use in Photon Transport Calculations," Lawrence Livermore Laboratory Report UCRL-17774, April 1978.
64. "Multi-Band Parameters and Bondarenko Self-Shielded Cross Sections Derived from the ENDL Library," Lawrence Livermore Laboratory Report UCRL-50400, Vol. 20, 1978.
65. "Program LINEAR: Linearize Evaluated Data in the ENDF/B Format (Version 78-1)," Lawrence Livermore Laboratory Report UCRL-50400, Vol. 17A, July 1978.
66. "Program SIGMA1: Doppler Broadened Evaluated Data in the ENDF/B Format (Version 78-1)," Lawrence Livermore Laboratory Report UCRL-50400, Vol. 17B, July 1978
67. "Multiband Calculations of Neutron and Photon Transport," Energy and Technology Review, Lawrence Livermore Laboratory, Livermore, CA, October 1978.
68. with E.F. Plechaty and R.J. Howerton "Tables and Graphs of Photon Interaction Cross Sections from 100 eV to 100 MeV Derived from the LLL Evaluated Nuclear Data Library," Lawrence Livermore Laboratory Report UCRL-50400, Vol. 6, Rev. 2, October 1978.
69. with E.F. Plechaty and R.J. Howerton, "Tabular and Graphical Presentation of 175 Neutron Group Constants Derived from the LLL Evaluated Nuclear Data Library," Lawrence Livermore Laboratory Report UCRL-50400, Vol. 16, Rev. 2, October 1978.
70. with R.J. Howerton, M.H. MacGregor, and E.F. Plechaty "The LLL Evaluated Nuclear Data Library (ENDL): Graphs of Cross Sections from Library," Lawrence Livermore Laboratory Report UCRL-50400, Vol. 15b, Rev. 1, October 1978.
71. "Program ECSX4 (Version 78-1): Conversion of Experimentally Measured Cross Section Data From the Four Center Exchange (X-4) Format to the Livermore ECSIL Format," Lawrence Livermore Laboratory Report UCRL-50400, Vol. 1, Part B, December 1978.

72. "DOWNER (Version 79-1): Group Collapse Cross Sections and Transfer Matrices," Lawrence Livermore Laboratory Report UCRL-50400, Vol. 17, Part F, January 1979.
73. "Program EVALPLOT (Version 79-1): Plot Data in the Evaluated Nuclear Data File/Version B (ENDF/B) Format," Lawrence Livermore Laboratory Report UCRL-50400, Vol. 17, Part E, February 1979.
74. "Program SIGMA1 (Version 79-1): Doppler Broaden Evaluated Cross Section in the Livermore Evaluated Nuclear Data Library (ENDL) Format," Lawrence Livermore Laboratory Report UCRL-50400, Vol. 21, Part C, March 1979.
75. with S.T. Perkins "Conservation of Reaction Rate and Average Rate of Energy Loss in Charged Particle Multigroup Transport," (to be submitted for publication in Nuclear Science and Engineering).
76. with R.J. Howerton and E.F. Plechaty "Temperature Effects on Charged Particle Induced Cross Sections," Technical Note, Nuclear Science and Engineering 74, 140-147 (1980).
77. "Program LINEAR (Version 79-1): Linearize data in the Evaluated Nuclear Data File/Version B (ENDF/B) Format," Lawrence Livermore Laboratory Report UCRL-50400, Vol. 17, Part A, Rev. 2, October 1979.
78. "Program SIGMA1 (Version 79-1): Doppler Broaden Evaluated Cross Sections in The Evaluated Nuclear Data File/Version B (ENDF/B) Format," Lawrence Livermore Laboratory Report UCRL-50400, Vol. 17, Part B, Rev. 2, October 1979.
79. "Program RECENT (Version 79-1): Reconstruct Energy Dependent Cross Sections from Resonance Parameters in the Evaluated Nuclear Data File/Version B (ENDF/B) Format," Lawrence Livermore Laboratory Report UCRL-50400, Vol. 17, Part C, October 1979.
80. "Program GROUPIE (Version 79-1): Calculate Bondarenko Self-Shielded Cross Sections and Multiband Parameters from Data in the Evaluated Nuclear Data File/Version B (ENDF/B) Format," Lawrence Livermore Laboratory Report UCRL-50400, Vol. 17, Part D, October 1979.
81. with G.C. Pomraning "The Multiband Method in Radiative Transfer Calculations," Lawrence Livermore Laboratory Report UCRL-83731, December 1979, The Journal of Quantitative Spectroscopy and Radiation Transfer, 24, 97 (1980).
82. with R.J. Howerton and E.F. Plechaty "Temperature Effects on Charged Particle Induced Cross Sections", Nuclear Science and Engineering, 74, 140, May 1980.
83. with S.T. Perkins "Elastic Nuclear Plus Interference Cross Sections for Light Charged Particles", Nuclear Science and Engineering, 77, 20, January 1981.
84. with H.D. Lemmel "The Computation Format for Experimentally Measured Data ", NDS-Memo-408, June 1981.
85. "Introduction to the EXFOR System", NDS-Memo-429, July 1981.
86. "Summary of ORR and YAYOI data for the REAL-80 Project", IAEA, Vienna, IAEA-NDS-33, February 1981.
87. Editor, Proceedings of the IAEA Consultants Meeting on Uranium and Plutonium isotope Resonance Parameters, INDC(NDS)-129, IAEA, Vienna (1982).
88. with O. Schwerer "Comparison of Uranium and Plutonium Group Averaged Cross Sections and Staircase Plots", Proc. IAEA Consultants Meeting on Uranium and Plutonium Resonance Parameters, INDC(NDS)-129, IAEA, Vienna (1982).

89. with V. Pronyaev "Comparison of Strength Functions and Average Level Spacing for U and Pu isotopes", Proc. IAEA Consultants Meeting on Uranium and Plutonium Resonance Parameters, INDC(NDS)-129, IAEA Vienna (1982);
90. with W.L. Zijp, C. Ertek, E.M. Zsolnay, E.J. Szondi and H.J. Nolthenius "First Results of the REAL-80 Exercise", Proc. IAEA Advisory Group Meeting on Nuclear Data for Radiation Damage Assessment and Related Safety Aspects", IAEA, Vienna, INDC(NDS)-128 (1982).
91. with N. Kocherov and P.K. McLaughlin "The International Reactor Dosimetry File (IRDF-82)", IAEA, Vienna, IAEA-NDS-41/42 and 48 (1982).
92. Summary of the ENDF/B Pre-processing Codes", IAEA, Vienna, IAEA-NDS-39, (1982).
93. with W.L. Zijp, C. Ertek, E.M. Zsolnay, E.J. Szondi and H.J. Nolthenius "Results of the REAL-80 Exercise", Proc. Fourth ASTM Meeting, Washington D.C., March 1982.
94. with N. Kocherov and P.K. McLaughlin "The International Reactor Dosimetry File (IRDF-82)", Proc. Fourth ASTM Meeting, Washington, D.C., March 1982.
95. with W.L. Zijp, H.J. Nolthenius, E.M. Zsolnay, E.J. Szondi, G.C.H.M. Verhaag and C. Ertek "Interim Report on the REAL-80 Exercise", Netherlands Energy Research Foundation, Petten, Netherlands, ECN-82-65, May 1982.
96. with S.T. Perkins "Conserving Average Rate of Energy Loss in Transport Calculations for Light Charged Particles", Nuclear Science and Engineering, 81, 75, May 1982.
97. with W.L. Zijp and R.E. MacFarlane "Verification of Nuclear Cross Section Processing Codes", Proc. of the Topical Meeting on Advances in Reactor Physics and Core Thermal Hydraulics, 1069, Kiamesha Lake, New York, September 1982.
98. "Preliminary Information on the Interregional Training Course on the Methodology of Evaluation and Processing of Nuclear Data for Nuclear Reactor Applications", IAEA, Vienna, INDC(81), December 1982.
99. with W.L. Zijp, E.M. Zsolnay, H.J. Nolthenius, E.J. Szondi, G.C.H.M. Verhaag and C. Ertek "Final Report on the REAL-80-Exercise", Netherlands Energy Research Foundation, Petten, Netherlands, ECN-128/INDC(NED)-7, February 1983.
100. with V.G. Pronyaev "INDL/F-83: Evaluated Neutron Reaction data Library for INTOR Fusion Neutronics Calculations", IAEA, Vienna, IAEA-NDS-57, March 1983.
101. with N. Kocherov and P.K. McLaughlin "Comparison of Experimental and Calculated CF-252 and U-235 Spectrum Averaged Cross Sections using the International Reactor Dosimetry File (IRDF-82)", Nuclear Science and Engineering, 83, 497, April 1983.
102. Editor "Proceedings of the IAEA Consultants' Meeting on the Assessment of the Results of the REAL-80 Project on Cross Section Unfolding Codes and Planning for Continuation of this Project", IAEA, Vienna, INDC(NDS)-148, June 1983.
103. Editor "Proceedings of the IAEA Consultants' Meeting on the U-235 Fast Neutron Cross Section and the CF-252 Fission Neutron Spectrum", Smolenice, Czechoslovakia, INDC(NDS)-146, July 1983.
104. with V.G. Pronyaev and H.D. Lemmel "Current Problems in the Data Base for a Re-evaluation of the U-235 fission cross section in the Fast Neutron Energy Region", Proc. of the IAEA Consultants' Meeting on the U-235 Fast Neutron Cross Section and the Cf-252 Fission Neutron Spectrum", Smolenice, Czechoslovakia, INDC(NDS)-146, July 1983.

105. with H.D. Lemmel and J.J. Schmidt "Nuclear Data Files for Reactor Calculations and Other Applications: Experimental Data - Evaluated Data", Computer Physics Communications, 33, North-Holland, Amsterdam (1984).
106. with J. Russell "Implementing and Using the Database Management System", Database Management in Science and Technology, 197, Elsevier Science Publishers B.V./CODATA (1984).
107. Editor "Proceedings of the IAEA Consultants' Meeting on Nuclear Data for Structural Materials", IAEA, Vienna, INDC(NDS)-152, October 1984.
108. "Comparison of Fe, Na and Cr Evaluated Nuclear Data", Proc. IAEA Consultants' Meeting on Nuclear Data for Structural Materials, IAEA, Vienna, INDC(NDS)-152, October 1984.
109. with P.K. McLaughlin "The International Reactor Dosimetry File (IRDF-85)", IAEA, Vienna, IAEA-NDS-41/42 and 48, rev. 1 (1985).
110. "ENDL-84: The Lawrence Livermore National Laboratory Evaluated Nuclear Data Library in the ENDF/B Format", IAEA, Vienna, IAEA-NDS-11, rev. 4, May 1985.
111. "Report on the IAEA Cross Section Processing Code Verification Project", IAEA, Vienna, INDC(NDS)-170, May 1985.
112. with J.J. Schmidt and A. Lorenz "Basic Nuclear Data for Nuclear Fission and Fusion Reactors", The Role of Data in Scientific Progress, Elsevier Science Publishers B.V., North-Holland, Amsterdam/CODATA (1985).
113. "The Accuracy of Data Processing", Proc. of the International State of the Art seminar on Nuclear Data, Cross Section Libraries and their Application in Nuclear Technology, Bonn, October 1985.
114. with E.M. Gryntakis and G. Mundy "Thermal Neutron Cross Sections and Infinite Dilution Resonance Integrals", Handbook on Nuclear Activation Data, IAEA, Vienna (in press).
115. "The Accuracy of Data Processing", submitted for publication as a technical note in Nuclear Science and Engineering.
116. "Nuclear Cross Section Processing", Handbook of Nuclear Reactor Calculation, vol. I, Yigal Ronen, Editor, CRC Press, inc., Boca Raton, Florida (1986).
117. "Summary of ENDF/B Pre-processing Codes", IAEA, Vienna, IAEA-NDS-39, rev. 1, February 1986.
118. with P. Vertes, A. Trkov "Proposed Card Image Format for Multigroup Constants", INDC(NDS)-169/NI, January 1985.
119. with W.L. Zijp, E.M. Zsolnay, H.J. Nolthenius, E.J. Szondi, G.C.H.M. Verhaag and C. Ertek "Final Report on the REAL-80 Exercise", BME-TR-RES-6/82, February 1983.
120. "Recommended Resonance-Parameters from BNL-325 (Sept. 1981) for U-235,-238, Pu-239,-242, in ENDF/B format", BNL-325, February 1983.
121. "EXFOR/Computation Format Codes", C4, Nuclear Data Section, IAEA, Vienna, Austria, February 1983.
122. "EXFOR/Computation Format Codes", C4/D, , Nuclear Data Section, IAEA, Vienna, Austria, February 1983.
123. with W.L. Zijp and R.E. MacFarlane "Verification of Nuclear Cross Section Processing Codes", INDC(NDS)-123/G, May 1982.

124. with W.L. Zijp and E.M. Zsolnay "Information Sheet for the REAL-84 Exercise", INDC(NDS)-166, March 1985.
125. with P. Vertes and A. Trkov "Proposed Card Image Format for Multigroup Constants", INDC(NDS)-169/NI, 1985.
126. "Report on the IAEA Cross Section Processing Code Verification Project", INDC(NDS)-170/NI, May 1985.
127. "Program X4TOC4. Converts nuclear data from EXFOR format to a computation format.", IAEA-NDS-80, September 1986.
128. "Program PLOT4. Plots evaluated nuclear data from ENDF format and/or experimental data in a computation format.", IAEA-NDS-79, rev. 1., June 1987.
129. "Program PLOTTAB. General plotting program.", IAEA-NDS-82, June 1987.
130. "Implementing and testing program PLOTTAB", IAEA-NDS-83, June 1987.
131. with R. Muranaka and J.J. Schmidt, Editor of Proceedings of the International Centre for Theoretical Physics' Workshop on Applications in Nuclear Data and Reactor Physics, International Centre for Theoretical Physics, Trieste, Italy, World Scientific Publishing Co. Pte Ltd, Singapore, 1987
132. with J.J. Smith "LINTAB, HEATER and PLOTTAB code package. Computer codes for model parameters and cross-section data.", IAEA-NDS-84, July 1987.
133. with J.J. Smith "Implementing and testing the LINTAB, HEATER and PLOTTAB code package", IAEA-NDS-85, July 1987.
134. "The Use of Personal Computers in Reactor Physics", UCRL-97996, January 1988, Proceedings of the International Atomic Energy Agency's Consultant's Meeting on Reactor Physics Calculations Using Small Computers, Vienna, Austria
135. "Advances in Personal Computers for Scientific Applications", UCRL-98555, April 1988, Proceedings of the International Centre for Theoretical Physics Workshop on Applied Nuclear Theory and Nuclear Model Calculations for Nuclear Technology Applications, Trieste, Italy
136. with S. Ganesan, V. Gopalakrishnan and M.M. Ramanadhan, "Verification of the Accuracy of Doppler Broadened, Self-Shielded Multigroup Cross Sections for Fast Power Reactor Applications", Ann. Nucl. Energy, to be published May 1988
137. "The Accuracy of Processed Nuclear Data", Nuc. Sci. and Eng., 99, 172-181, June 1988
138. with R. Muranaka and J.J. Schmidt, Editor of Proceedings of the International Centre for Theoretical Physics' Workshop on Applied Nuclear Theory and Nuclear Model Calculations for Nuclear Technology Applications, International Centre for Theoretical Physics, Trieste, Italy, World Scientific Publishing Co. Pte Ltd, Singapore, 1989
139. with S.T. Perkins, E.F. Plechaty, and J. Rathkopf, "The All Particle Method: Coupled Neutron, Photon, Electron, Charged Particle Monte Carlo Calculations", Lawrence Livermore National Laboratory UCRL-98975, June 1988 and the proceedings of the Seventh International Conference on Radiation Shielding, Bournemouth, England, September 1988
140. with J.A. Rathkopf, "Summary of the coordination meeting for contributors to the new Livermore photon cross section data base", Lawrence Livermore National Laboratory, UCID-21448 SUME, June 1988

141. with S.T. Perkins, "The Livermore bremsstrahlung data base", Lawrence Livermore National Laboratory, UCID-21627, February 1989
142. with S.T. Perkins, "The Livermore electron impact ionization data base", Lawrence Livermore National Laboratory, UCID-21628, February 1989
143. "A simple model to account for the production of energetic photons by bremsstrahlung", Lawrence Livermore National Laboratory, Monte Carlo Group, MC-4, May 1989
144. with S.T. Perkins, "Program IONE: a code designed to create an electron ionization data base in the ENDL format", Lawrence Livermore National Laboratory, UCID-21635, May 1989
145. with S.T. Perkins, "Program BREMS: a code designed to create a bremsstrahlung data base in the ENDL format", Lawrence Livermore National Laboratory, UCID-21694, July 1989
146. with P.K. McLaughlin "Summary of the ENDF/B Pre-processing Codes", IAEA Nuclear Data Section, Vienna, Austria, IAEA-NDS-39, Rev. 2, May 1989
147. with M.H. Chen, J.H. Hubbell, S.T. Perkins, E.F. Plechaty, J.A. Rathkopf and J.H. Scofield "Tables and Graphs of Photon-Interaction Cross Sections from 10 eV to 100 GeV Derived from the LLNL Evaluated Photon Data Library (EPDL), UCRL-50400, Vol. 6, Rev. 4, Part A: Z = 1 to 50, October 1989
148. with M.H. Chen, J.H. Hubbell, S.T. Perkins, E.F. Plechaty, J.A. Rathkopf and J.H. Scofield "Tables and Graphs of Photon-Interaction Cross Sections from 10 eV to 100 GeV Derived from the LLNL Evaluated Photon Data Library (EPDL), UCRL-50400, Vol. 6, Rev. 4, Part B: Z = 51 to 100, October 1989
149. "Program GROUPL: A Code Designed to Calculate Self-Shielded Multi-Group Photon Cross Sections", Lawrence Livermore National Laboratory, UCID-21784, November 1989
150. with S.T. Perkins, "Self-Shielded Group Averaged Photon Interaction Cross Sections", Lawrence Livermore National Laboratory, UCID-21846, November 1989
151. "Program SCATMAN: A Code Designed to Calculate Photon Coherent Scattering Anomalous Scattering Factors and Cross Sections", Lawrence Livermore National Laboratory, UCRL-ID-103422, November 1989
152. with P. Lee, J. Rathkopf and S.T. Perkins, "Tables of Average Distributions of Particles Emitted by Ionized Elements (Z = 6 - 100)", Lawrence Livermore National Laboratory, UCID-21918, January 1990
153. with S.T. Perkins, "The Livermore Electron Elastic Scattering Data Base", Lawrence Livermore National Laboratory, UCRL-ID-103170, March 1990
154. with S.T. Perkins and J.A. Rathkopf, "The 1989 Livermore Evaluated Photon Data Library (EPDL)", Lawrence Livermore National Laboratory, UCRL-ID-103424, March 1990
155. with J.A. Rathkopf, C.T. Ballinger, S.T. Perkins, and E.F. Plechaty, "The All Particle Monte Carlo Method: 1990 Status Report", Lawrence Livermore National Laboratory, UCRL-102786, July 1990
156. with J.A. Rathkopf and S.T. Perkins, "The All Particle Monte Carlo Method: Atomic Data Files", Lawrence Livermore National Laboratory, UCRL-JC-105438, November 1990
157. with R. Muranaka and J.J. Schmidt, Editor of Proceedings of the International Centre for Theoretical Physics' Workshop on Reactor Physics Calculations for Applications in Nuclear Technology, International Centre for Theoretical Physics, Trieste, Italy, World Scientific Publishing Co. Pte Ltd, Singapore, 1991

158. with C.T. Ballinger, S.T. Perkins, J.A. Rathkopf, W.R. Martin and S.J. Wilderman, "Single-Scatter Monte Carlo Compared to Condensed History Results for Low Energy Electrons", Lawrence Livermore National Laboratory, UCRL-JC-107067, May 1991.
159. with C.T. Ballinger and S.T. Perkins, "The All Particle Method: 1991 Status Report", Lawrence Livermore National Laboratory, UCRL-JC-108-61, July 1991.
160. with M.H. Chen, J.H. Hubbell, S.T. Perkins, J. Rathkopf and J. Scofield, "Tables and Graphs of Atomic Subshell and Relaxation Data Derived from the LLNL Evaluated Atomic Data Library (EADL), $Z = 1 - 100$ ", Lawrence Livermore National Laboratory, UCRL-50400, Vol. 30, October 1991.
161. with S.T. Perkins and S.M. Seltzer, "Tables and Graphs of Electron Interaction Cross 10 eV to 100 GeV Derived from the LLNL Evaluated Electron Data Library (EEDL), $Z = 1 - 100$ ", Lawrence Livermore National Laboratory, UCRL-50400, Vol. 31, November 1991.
162. with S.T. Perkins and E.F. Plechaty, "The ENDF/B-VI Photon Interaction Library", Lawrence Livermore National Laboratory, UCRL-JC-109764, January 1992.
163. with S.T. Perkins and S.M. Seltzer, "Photon and Electron Data Bases and Their Use in Radiation Transport Calculations", Lawrence Livermore National Laboratory, UCRL-JC-109763, February 1992.
164. "The 1992 ENDF/B Pre-Processing Codes", The International Atomic Energy Agency, Vienna, Austria, IAEA-NDS-39, Rev. 7, February 1992.
165. "PROGRAM SIXPAK: A Code Designed to Check Double-Differential Data and Calculate 'Equivalent' Uncorrelated Data", Lawrence Livermore National Laboratory, UCRL-ID-110241, February 1992.
166. "PROGRAM PLOTTAB: A Code Designed to Plot Continuous and/or Discrete Physical Data", Lawrence Livermore National Laboratory, UCRL-ID-110240, March 1992.
167. "PROGRAM RELAX: A Code Designed to Calculate X-Ray and Electron Emission Spectra as Singly Charged Atoms Relax Back to Neutrality", Lawrence Livermore National Laboratory, UCRL-ID-110438, March 1992.
168. with C.T. Ballinger, S.T. Perkins, J.A. Rathkopf, W.R. Martin and S.J. Wilderman, "Single-Scatter Monte Carlo Compared to Condensed History Results for Low Energy Electrons", Nuc. Inst. and Methods in Phys. Res. B72, 19 (1992).
169. with S.T. Perkins and S.M. Seltzer, "Photon and Electron Data Bases and Their Use in Radiation Transport Calculations", Applied Radiation and Isotopes, Vol. 44, No. 10/11, pp. 1343-1347, 1993, Pergamon Press.
170. "Red's Natural Editor: A Program designed to edit FORTRAN Programs", Lawrence Livermore National Laboratory, UCRL-ID-115226, Sept. 1993
171. "The 1994 ENDF/B Pre-Processing Codes", The International Atomic Energy Agency, Vienna, Austria, IAEA-NDS-39, Rev. 8, Jan. 1994.
172. "Photon Interaction Data for ENDF/B-VI", UCRL-JC-116332 and the proceedings of the 1994 Reactor Physics Topical Meeting of the ANS, Feb. 1994.
173. "Program EPICSHOW: A Computer Code to Allow Interactive viewing of the EPIC Data Libraries (Version 94-1)", UCRL-ID-116819, Feb. 1994.

174. "Photon and Electron Interaction Databases and Their Use in Medical Applications", UCRL-JC-117419-D, May 1994, and the proceedings of the 1994 World Conference on Medical Physics and Biomedical Engineering, Rio de Janeiro, Brazil, Aug. 1994.
175. with S.T. Perkins, "ENDL Type Formats for the LLNL Evaluated Atomic Data Library, EADL, for the Evaluated Electron Data Library, EEDL, and for the Evaluated Photon Data Library, EPDL", Lawrence Livermore National Laboratory, UCRL-ID-117796, July 1994.
176. "A Room Temperature, ENDF/B-VI, Mod. 2 Cross Section Library", Lawrence Livermore National Laboratory, UCRL-ID-117797, July 1994.
177. "Program WALKMAN: a Code Designed to Perform Electron Single Collision Elastic Scattering Monte Carlo Calculations", Lawrence Livermore National Laboratory, UCRL-ID-118276, Aug. 1994.
178. "Photon and Electron interaction Data Bases and Their Use in Medical Applications", proceedings of the 1994 World Congress on Medical Physics and Biomedical Engineering, Rio de Janeiro, Brazil, Aug. 1994.
179. "A Simple Model of Photon Transport", Lawrence Livermore National Laboratory, UCRL-JC-118254, Rev. 1, Sept. 1994.
180. "Program EPICP: Electron Photon Interaction Code: Photon Test module", Version 94.2, Lawrence Livermore National Laboratory, UCRL-ID-118400, Sept. 1994.
181. "THERMAL: A Routine Designed to Calculate Neutron Thermal Scattering", Lawrence Livermore National Laboratory, UCRL-ID-120560, Feb. 1995.
182. with A. Bielajew, "Incorporating the Livermore Photon Interaction Data Base into the Electron-Photon Monte Carlo Transport Code EGS4", proceedings of the International Conference on Mathematics and Computations, Reactor Physics, and Environmental Analyses, Portland, Oregon, May 1995
183. with A.L. Edwards and E.F. Plechaty, "TART95: A Coupled Neutron-Photon Monte Carlo Transport Code", Lawrence Livermore National Laboratory, UCRL-MA-121319, July 1995.
184. "A Simple Model of Photon Transport", Nuclear Instrumentation and Methods in Physics Research B 101 (1995) pp. 499-510
185. "THERMAL: A Routine Designed to Calculate Neutron Thermal Scattering", Lawrence Livermore National Laboratory, UCRL-ID-120560-Rev-1, Sept. 1995.
186. "A Room Temperature ENDF/B-VI, Mod. 3 Cross Section Library", Lawrence Livermore National Laboratory, UCRL-ID-124171, March 1996.
187. "TART96: A Coupled Neutron-Photon 3-D, Combinatorial Geometry Monte Carlo Transport Code", Lawrence Livermore National Laboratory, UCRL-ID-126455, November, 1996.
188. "The 1996 ENDF/B Pre-Processing Codes", The International Atomic Energy Agency, Vienna, Austria, IAEA-NDS-39, Rev. 9, November 1996.
189. "A Temperature Dependent ENDF/B-VI, Release 4 Cross Section Library," Lawrence Livermore National Laboratory, UCRL-ID-127776, July 1997 .
190. "EPDL97: the Evaluated Photon Data Library, '97 Version," Lawrence Livermore National Laboratory, UCRL-50400, Vol. 6, Rev. 5, September 1997.

191. "TART97: A Coupled Neutron-Photon 3-D, Combinatorial Geometry Monte Carlo Transport Code," Lawrence Livermore National Laboratory, UCRL-ID-126455, Rev. 1, November, 1997.
192. "TART97 Installation," Lawrence Livermore National Laboratory, UCRL-ID- 130839, May 1998.
193. with M.M. Svatos, "A Simple Model of Electron Transport", Radiation Physics and Chemistry 53 (1998) 349-350
194. TART Website: <http://reddog1.llnl.gov>, Lawrence Livermore National Laboratory, UCRL-MI-129090, September 1998
195. "Photon and Electron Data for Use in Accelerator Applications", Proceedings of the Fifteenth International Conference on the Application of Accelerators in Research and Industry, held Nov. 4-7, 1998, University of North Texas, Denton, Texas, and Lawrence Livermore National Laboratory, UCRL-JC-133079.
196. "TART98: A Coupled Neutron-Photon 3-D, Time Dependent, Combinatorial Geometry Monte Carlo Transport Code," Lawrence Livermore National Laboratory, UCRL-ID-126455, Rev. 2, November 1998.
197. "PREPRO2000: 2000 ENDF/B Pre-Processing Codes", The International Atomic Energy Agency, Vienna, Austria, IAEA-NDS-39, Rev. 10, July 2000.
198. "A Temperature Dependent ENDF/B-VI, Release 7 Cross Section Library", Lawrence Livermore National Laboratory, UCRL-ID-127776, Rev. 1, November 2000.
199. "TART2000: A Coupled Neutron-Photon 3-D, Time Dependent, Combinatorial Geometry Monte Carlo Transport Code," Lawrence Livermore National Laboratory, UCRL-ID-126455, Rev. 3, November 2000.
200. "Mass and Density, Criticality Relationships," Lawrence Livermore National Laboratory, UCID-143496, March 2001.
201. "Why are the P_n and S_n Methods Equivalent?", Lawrence Livermore National Laboratory, UCRL-ID-145518, September, 2001.
202. Red Cullen's Website: <http://www.llnl.gov/cullen1>, Lawrence Livermore National Laboratory, UCRL-MI-129090-Rev-1, October 2001
203. "TART: Monte Carlo Radiation Transport in Industrial Applications", Lawrence Livermore National Laboratory, UCRL-JC-134196, February 2002, and the proceedings of the Twelfth Biennial Topical Meeting of the Radiation Protection and Shielding Division, of the American Nuclear Society, April 14-17, 2002 in Santa Fe, New Mexico
204. "ENDF/B-VI Coupled Photon-Electron Data for Use in Radiation Shielding Applications", Lawrence Livermore National Laboratory, UCRL-JC-134196, February 2002, and the proceedings of the Twelfth Biennial Topical Meeting of the Radiation Protection and Shielding Division, of the American Nuclear Society, April 14-17, 2002 in Santa Fe, New Mexico
205. "ENDL Type Formats for the LLNL Evaluated Atomic Data Library (EADL), Evaluated Electron Data Library (EEDL), and Evaluated Photon Data Library (EPDL)", Lawrence Livermore National Laboratory, UCRL-ID-117796, Rev. 1, May 2002
206. "PREPRO 2002: 2002 ENDF/B Pre-Processing Codes", The International Atomic Energy Agency, Vienna, Austria, IAEA-NDS-39, Rev. 11, February 2003.
207. "POINT 2003: A Temperature Dependent ENDF/B-VI, Release 8 Cross Section Library", Lawrence Livermore National Laboratory, UCRL-ID-127776, Rev. 2, May 2003.

208. "Thermal Scattering Law Data: Implementation and Testing using the Monte Carlo neutron transport codes COG, MCNP and TART", Lawrence Livermore National Laboratory, UCRL-ID-153656, May 2003
209. "TART 2002: A Coupled Neutron-Photon 3-D, Time Dependent, Combinatorial Geometry Monte Carlo Transport Code," Lawrence Livermore National Laboratory, UCRL-ID-126455, Rev. 4, June 2003.
210. "Static and Dynamic Criticality: Are they different?", with Christopher J. Clouse, Richard Procassini, and Robert C. Little, Lawrence Livermore National Laboratory, UCRL-TR-201506, November 2003.
211. "POINT 2004: A Temperature Dependent ENDF/B-VI, Release 8 Cross Section Library", Lawrence Livermore National Laboratory, UCRL-TR-202284, April 2004.
212. "Sampling ENDF Watt Fission Spectra", Lawrence Livermore National Laboratory, UCRL-TR-203251, April 2004.
213. Red Cullen's Website: <http://www.llnl.gov/cullen1>, Lawrence Livermore National Laboratory, UCRL-WEB-203684, April 2004
214. "How Accurately can we Calculate Thermal Systems?", with many authors, Lawrence Livermore National Laboratory, UCRL-TR-203892, April 2004, also INDC International Nuclear Data Committee, report INDC(USA)-107, May 2004.
215. "A Simple Model of Delayed Neutron Emission", Lawrence Livermore National Laboratory, UCRL-TR-204743, June 2004.
216. "Mass and Density, Critical Relationships, Generalized", Lawrence Livermore National Laboratory, UCRL-TR-204988, June 2004.
217. with R. Procassini, et al., "Design, Implementation and Optimization of a Parallel Monte Carlo Particle Transport Code", Lawrence Livermore National Laboratory, UCRL-CONF-206425, September 2004.
218. with R. Procassini and G. Greenman, "Verification and Validation of MERCURY: A Modern, Monte Carlo Particle Transport Code", Lawrence Livermore National Laboratory, UCRL-PRES-206855, October 2004.
219. "PREPRO 2004: 2004 ENDF/B Pre-Processing Codes", The International Atomic Energy Agency, Vienna, Austria, IAEA-NDS-39, Rev. 12, November 2004.
220. with R. Procassini et al., "Verification and Validation of MERCURY: A Modern, Monte Carlo Particle Transport Code", Lawrence Livermore National Laboratory, UCRL-CONF-208667, presented at the ANS meeting, Chattanooga, TN, , April 2005.
221. with R. Procassini, et al., "Update on the Development and Validation of MERCURY: A Modern, Monte Carlo Particle Transport Code", Lawrence Livermore National Laboratory, UCRL-ABS-208828, presented at the ANS meeting, Avignon, France, September 2005.
222. "TART 2005: A Coupled Neutron-Photon 3-D, Time Dependent, Combinatorial Geometry Monte Carlo Transport Code," Lawrence Livermore National Laboratory, UCRL-SM-218009, November 22, 2005.
223. with Scott McKinley and Christian Hagmann, "MERCURY vs. TART Comparisons to Verify Thermal Scattering", Lawrence Livermore National Laboratory, UCRL-TR-220432, April 1, 2006.
224. with many authors, "How Accurately Can We Calculate Neutrons Slowing Down In Water?", Lawrence Livermore National Laboratory, UCRL-TR-220605, April 1, 2006.
225. "The TART Monte Carlo Transport Code Home Page", Lawrence Livermore National Laboratory, UCRL-WEB-

221645, May 30, 2006; presently on-line at <http://www.llnl.gov/cullen1>

226. "Sampling the Number of Neutrons Emitted per Fission", Lawrence Livermore National Laboratory, UCRL-TR-222526, May 1, 2006.

227. with many authors, "Application of MCNP, MERCURY and TART to Calculation of the National Ignition Facility (NIF) Shielding", Lawrence Livermore National Laboratory, UCRL-ABS-221988, June 6, 2006 (abstract for invited paper).

228. with Scott McKinley and Christian Hagmann, "Verification of High Temperature Free Atom Thermal Scattering in MERCURY Compared to TART", Lawrence Livermore National Laboratory, UCRL-TR-226340, August 1, 2006.

229. with many authors, "Application of MCNP, MERCURY and TART to Calculation of the National Ignition Facility (NIF) Shielding", Lawrence Livermore National Laboratory, UCRL-PRES-226054, November, 2006 (power point presentation).

230. with many authors "ENDF/B-VII.0: Next Generation Evaluated Nuclear Data Library for Nuclear Science and Technology", Nuclear Data Sheets 107 (2006) pp. 2931-3060.

231. "Program ZAUPDATE: Define material equivalences for ENDF/B-VII.0 Data for use in TART input files", Lawrence Livermore National Laboratory, UCRL-SM-228335, February 2007.

232. "POINT 2007: A Temperature Dependent ENDF/B-VII.0 data Cross Section Library", Lawrence Livermore National Laboratory, UCRL-TR-228089, February 2007.

233. "PREPRO 2007: 2007 ENDF/B pre-processing Codes", IAEA-NDS-39, Rev. 13, March 17, 2007, Nuclear Data Section, International Atomic Energy Agency, Vienna, Austria.

234. with many authors, "COG – Publicly Available Now to Criticality Safety Practitioners", Lawrence Livermore National Laboratory, UCRL-CONF-224715

235. with many authors, "ENDF/B-VI.0 Data Testing for Three Fast Critical Assemblies", Lawrence Livermore National Laboratory, UCRL-TR-233310, June 2007

236. with Ernest F. Plechaty, "ENDF/B-VII.0 Data Testing Using 1,172 Critical Assemblies", Lawrence Livermore National Laboratory, UCRL-TR-235178, October 2007

237. with many authors, "Criticality Calculations Using LANL and LLNL Neutron Transport Codes", Lawrence Livermore National Laboratory, UCRL-TR-237333, November 2007

238. with many authors, "A Code Comparison Study for the Bigten Critical Assembly", Los Alamos National Laboratory, LA-UR-08-4668, July 2008

239. "Definition of K-eff", May 2009

240. "POINT 2009: A Temperature Dependent ENDF/B-VII.0 data Cross Section Library", June 2009

241. "TRISO Homogenization", November 2009

242. "ENDF Cross Sections are not Uniquely Defined", LLNL-TR-446331, June 2010

243. "A Short History of ENDF/B Unresolved Resonance Parameters", LLNL-TR-461199, October 2010

244. "PREPRO 2010: 2010 ENDF/B Pre-Processing Codes", IAEA-NDS-39, Rev. 14, October 2010

245. "Nuclear Data Preparation", pp. 279-425, Vol. 1, in "The Handbook of Nuclear Engineering", Springer Publishing, NY, NY (2010)
246. "POINT 2011: ENDF/B-VII.1 **Beta2** Temperature Dependent Cross Section Library", LLNL-TR-479947, April 2011
247. "POINT 2011: ENDF/B-VII.1 **Beta3** Temperature Dependent Cross Section Library", LLNL-TR-479947, rev. 1, May 2011, **Note, that beta3 supercedes beta2**
248. "POINT 2011: ENDF/B-VII.1 **Beta4** Temperature Dependent Cross Section Library", LLNL-TR-479947, rev. 2, October 2011, **Note, that beta4 supercedes beta3**
249. "PREPRO Accomplishments", LLNL-PRES-469876, March 2011, updated October 2011.
250. "Doppler Broadening Update: Broadening near the Unresolved Resonance Region", LLNL-TR-534931, January 2012.
251. "POINT 2012: ENDF/B-VII.1 **Final** Temperature Dependent Cross Section Library", LLNL-TR-534938, January 2012, **Note, that beta4 supercedes beta4**
252. "ENDF/B-VII.1 versus ENDF/B-VII.0: What's Different?", LLNL-TR-548633, March 2012.
253. "TART2012: An Overview of A Coupled Neutron-Photon, 3D, Combinatorial Geometry, Time Dependent Monte Carlo Transport Code", LLNL-TR-577352, June 2012.
254. "PREPRO2012: 2012 ENDF/B Pre-processing Codes", IAEA-NDS-39, Rev. 15, October 2012,
255. "ENDF/X: an Extended ENDF Format (Evolution, not Revolution)", December, 2012
256. TART2012: Code Release, LLNL-CODE-624052, March 2013.
257. PROGRAM PLOTTAB: A Code Designed to Plot Continuous and/or Discrete Physical Data (Version 2013-1), IAEA-NDS-82, Rev. 1, Nuclear Data Section, IAEA, Vienna, Austria, Nov. 2013: **Part A: Documentation.**
258. PROGRAM PLOTTAB: A Code Designed to Plot Continuous and/or Discrete Physical Data (Version 2013-1), IAEA-NDS-82, Rev. 1, Nuclear Data Section, IAEA, Vienna, Austria, Nov. 2013: **Part B: Examples.**
259. PROGRAM ENDF2C: Convert ENDF Data to Standard FORTRAN, C and C++ Format (**Version 2014-1**), IAEA-NDS-217, Nuclear Data Section, IAEA, Vienna, Austria, **April 2014**
260. "How Accurate Are Our Processed ENDF Cross Sections?" INDC(NDS)-0666, Distr. J, Nuclear Data Section, IAEA, Vienna, Austria, May 2014
261. "EPICS2014: Electron Photon Interaction Cross Sections", IAEA-NDS-2018, Nuclear Data Section, IAEA, Vienna, Austria, September 2014
262. "PREPRO2015: 2015 ENDF/B Pre-processing Codes", IAEA-NDS-39, Rev. 16, January 2015,
263. "POINT 2015: ENDF/B-VII.1 Final Temperature Dependent Cross Section Library", IAEA-NDS-221, Nuclear Data Section, IAEA, Vienna, Austria, March 2015
264. "ENDF/B VII.1 versus ENDF/B-VII.0", INDC(NDS)-0684, Nuclear Data Section, IAEA, Vienna, Austria, March 2015
265. PROGRAM ENDF2C: Convert ENDF Data to Standard FORTRAN, C and C++ Format (**Version 2015-1**), IAEA-NDS-217, **Rev. 1**, Nuclear Data Section, IAEA, Vienna, Austria, **May 2015**

266. “ENDF/B-VII.1 vs. CIELO”, May 2015, with Bob MacFarlane
267. “EPICS2014: Electron Photon Interaction Cross Sections”, IAEA-NDS-2018, **rev.1**, Nuclear Data Section, IAEA, Vienna, Austria, **August 2015**
268. “An Alternative Approach to Creating ACE Data Files for Use in Monte Carlo Codes”, INDC(NDS)-0701, Nuclear Data Section, IAEA, Vienna, December 2015, with Andrej Trkov.
269. “URR-Pack: Calculating Self-Shielding in the Unresolved Resonance Energy Range”, INDC(NDS)-0711, Rev. 1, Nuclear Data Section, IAEA, Vienna, July 2016, with Andrej Trkov.
270. “**TART 2016**: An Overview of A Coupled Neutron-Photon 3-D, Combinatorial Geometry Time Dependent Monte Carlo Transport Code”, Report: LLNL-SM-704560, Code Release: LLNL-CODE-708759, September 2016.
271. “A Pulsed Sphere Tutorial”, Lawrence Livermore National Laboratory, LLNL-TR-726839, January, 2017.
272. “**PREPRO2017**: 2017 ENDF/B Pre-processing Codes”, IAEA-NDS-39, Rev. 17, May 2017. (ENDF/B-VII or Proposed VIII Tested)
273. “**EADL2017**: Survey of Atomic Binding Energies for use in EPICS2017”, IAEA-NDS-224, Septemb2017, Nuclear Data Section (NDS), IAEA, Vienna, Austria.
274. “**EPDL2017**: Survey of Atomic Photon Cross Section Data for use in EPICS2017”, IAEA-NDS-225, November 2017, Nuclear Data Section (NDS), IAEA, Vienna, Austria.
275. “**EEDL2017**: Survey of Electron Cross Section Data for use in EPICS2017”, IAEA-NDS-226, December 2017, Nuclear Data Section (NDS), IAEA, Vienna, Austria.
276. “**EPDL2017**: Survey of Atomic Photon Cross Section Data for use in EPICS2017”, IAEA-NDS-225, **Rev. 1, February 2018**, Nuclear Data Section (NDS), IAEA, Vienna, Austria.
277. “**ENDF/B-VII.0**: Next Generation Evaluated Nuclear Data Library for Nuclear Science and Technology”, with M.B. Chadwick and many others, Nuclear Data Sheets 107 (2006) 2931-3060
278. “**ENDF/B-VIII.0**: The 8th Major Release of the Nuclear Reaction Data Library with CIELO-project Cross Sections, New Standards and Thermal Scattering Data”, with D.A.Brown and many others, Nuclear Data Sheets 148 (2018) 1-142.
279. “**EADL2017**: Survey of Atomic Binding Energies for use in EPICS2017”, IAEA-NDS-224, **Rev. 1, April 2018**, Nuclear Data Section (NDS), IAEA, Vienna, Austria.
280. “**POINT2018**: ENDF/B-VIII Final Temperature Dependent Cross Section Library”, IAEA-NDS-227, April 2018, Nuclear Data Section (NDS), IAEA, Vienna, Austria.
281. “**ENDF/B VIII versus ENDF/B-VII**: What’s Different?”, INDC(NDS)-0759, Nuclear Data Section, IAEA, Vienna, Austria, May 2018.

282. “The Importance of **Resonance Self-Shielding**”, INDC(NDS)-0778, Nuclear Data Section, IAEA, Vienna, Austria, March 2019.
- 283: "**EPICS2017: April 2019 Status Report**", IAEA-NDS-228, Nuclear Data Section, IAEA, Vienna, Austria, May 2019.
- 284: “**PREPRO2019: 2019 ENDF/B Pre-processing Codes (ENDF/B-VIII Verified)**”, IAEA-NDS-229. Nuclear Data Section, IAEA, Vienna, Austria, August 2019.
- 285; “**TENDL 2019 POINTWISE 2020** Temperature Dependent Cross Section Library”, IAEA-NDS-233. Nuclear Data Section, IAEA, Vienna, Austria, May 2020.
- 286: **ACEMAKER**: with Daniel López Aldama and Andrej Trkov, “**ACEMAKER-2019** A code package to produce ACE-formatted files for MCNP calculations”, IAEA-NDS-223. Rev. 1, Nuclear Data Section, IAEA, Vienna, Austria, September 2020.
287. “A Survey of **ENDF/B-VIII Resonance Parameters (MF=2)**”, IAEA-NDS-0819 Nuclear Data Section, IAEA, Vienna, Austria, November 2020.
288. with Andrej Trkov and Daniel López Aldama, “On the **Self-Shielding** in the **Unresolved Resonance Range**”, presented at the 29th International Conference Nuclear Energy for New Europe (NENE 2020), September 7-10, 2020, Portoroz, Slovenia.
289. “**POINT2021: ENDF/B-VIII.0 Temperature Dependent Cross Section Library**”, IAEA-NDS-0237, Nuclear Data Section (NDS), IAEA, Vienna, Austria, May 2021.
290. “**PREPRO 2021: 2021 ENDF/B Pre-processing Codes (ENDF/B-VIII.0 Improved Precision)**”, IAEA-NDS-0238, Nuclear Data Section (NDS), IAEA, Vienna, Austria, July 14, 2021.
291. “**TART 2022: An Overview of A Coupled Neutron-Photon 3-D, Combinatorial Geometry Time Dependent Monte Carlo Transport Code**”, Report: LLNL-SM-835527, Code Release: LLNL-CODE-836321, May 2022.
292. “The **P_n** and **S_n** Methods are Equivalent”, Lawrence Livermore National Laboratory, UCRL-TR-839385, September, 2022.
293. “Monte Carlo **Statistical Convergence**”, Lawrence Livermore National Laboratory, UCRL-TR-847814, April, 2023.
- 294: **ACEMAKER**: with Daniel López Aldama, Andrej Trkov and Roberto Capote, “**ACEMAKER-2019** A code package to produce ACE-formatted files for MCNP calculations”, Proceedings of the European Physical Journal Conference, 284, May 2023.
295. **PREPRO 2023: 2023 ENDF/B Pre-processing Codes (ENDF/B-VIII.0 Improved Precision)**”, IAEA, NDS-0241, Nuclear Data Section (NDS), IAEA, Vienna, Austria, June 6, 2023.
296. **EPICS2023: August 2023 Status Report**, IAEA-NDS-0242, Nuclear Data Center, IAEA, Vienna, Austria, August 2023
297. **Unfolding** Cross Sections: A Brief Introduction, Lawrence Livermore National Laboratory, LLNL-TR-857050, October 2023
298. “**POINT2025: ENDF/B-VIII.1 Temperature Dependent Cross Section Library**”, IAEA-NDS-0250, Nuclear Data Section (NDS), IAEA, Vienna, Austria, January 2025.

299. “**EPICS2025**. 2025 Status Report, Lawrence Livermore National Laboratory, LLNL- TR-2004415, January 2025.

300. “**Doppler Broadening** and other Temperature Effects”/ Lawrence Livermore National Laboratory, LLNL- TR-2005605, April 2025.

Oral Presentations

1. "A Monte Carlo Program for the Penetration of Fast Neutrons Through Bulk Material," Fourth Annual American Nuclear Society Student Conference, University of Illinois, 1966.
2. "Graphic Displays in Cross Section Evaluation," Winter Meeting of the American Nuclear Society, Washington, D.C., 1970.
3. "Graphic Displays in Cross Section Evaluation," PDP-10/15, Users Group Conference, State University of New York, Stony Brook, New York, 1971.
4. "Closing the Pn Equation Using an Integral Equation," Summer Meeting of the American Nuclear Society, Las Vegas, Nevada 1972.
5. "Exact Doppler Broadening of Evaluated Neutron Cross Sections," Summer Meeting of the American Nuclear Society, Chicago, Illinois, June 1973.
6. "Calculation of Resonance Self-Shielding in Pu-239 and U-235," Winter Meeting of the American Nuclear Society, San Francisco, California, November 1973.
7. "Determination of the Multi-Group Weighting Spectra and Cross Sections," Winter Meeting of the American Nuclear Society, San Francisco, California, November 1973.
8. "Multi-Group Cross Section Dependence on Weighting Function Model," Winter Meeting of the American Nuclear Society, San Francisco, California, November 1973.
9. "Fast Reactor Cross Section Processing Codes - Is There a Dollar Worth of Difference Between Them?" Topical Meeting of Reactor Division of the American Nuclear Society, Atlanta, Georgia, October 1974.
10. "Comparison of Doppler Broadening Methods," Cross Section Technology, Washington, March 1975.
11. "Tabular Cross Section File Generation and Utilization," Cross Section Technology, Washington, March 1975.
12. "Direct Calculation of Cross Section Probability Tables," American Nuclear Society, Ontario, Canada, June 1976.
13. "The Role of "Standard" Fine Group Cross Section Libraries in Shielding Analysis," fifth International Conference on Reactor Shielding, Knoxville, Tennessee, April 1977.
14. "Application of the Probability Table Method to Practical Problems," Winter Meeting of the ANS, San Francisco, California, November 1977.
15. "Cross Section Probability Tables in Multi-Group Transport Calculations," Radiation Shielding Information Center (RSIC) Seminar-Workshop, Oak Ridge, Tennessee, March 1978.
16. "Probability Table Method as Applied to Multi-Group Transport Calculations," Joint Mathematics-Nuclear Engineering Seminar, Georgia Tech, Atlanta, Georgia, April 1978.
17. "The Multi-Band Method in Neutron and Photon Transport Problems," A-Division Seminar, Lawrence Livermore Laboratory, Livermore, CA, June 1978.
18. "Multiband Calculations in Neutron and Photon Transport Problems," B-Division Seminar, Lawrence Livermore Laboratory, Livermore, CA, September 1978.

19. "Application of the Multiband Method to Neutron and Photon Transport Calculations," Invited lecturer for Joint Nuclear Engineering and Transport Seminar, University of California, Los Angeles, April 1979.
20. "Application of the Multiband Method to Neutron and Photon Transport Problems", presented at Institute for Heat and Mass Transfer of the Belorussia Academy of Science, Minsk, May 1981.
21. "Verification of the Accuracy of Cross Section Processing Codes", presented at Institute for Heat and Mass Transfer of the Belorussia Academy of Science, Minsk, May 1981.
22. "Comparison of Uranium and Plutonium Group Averaged Cross Sections and Staircase Plots", presented at the IAEA Consultants' Meeting on Uranium and Plutonium Resonance Parameters, IAEA, Vienna (1981).
23. "Comparison of Strength Functions and Average Level spacing of U and Pu Isotopes", presented at the IAEA Consultants' Meeting on Uranium and Plutonium Resonance Parameters, IAEA, Vienna (1981).
24. "First Results of the REAL-80 Exercise", presented at the IAEA Advisory Group Meeting on Nuclear Data for Radiation Damage Assessment and Related Safety Aspects", IAEA, Vienna, INDC(NDS)-128 (1982).
25. "IAEA Related Projects on the Processing of Nuclear Cross Section Data", presented at the Trieste Winter Course on Nuclear Physics and Reactor Engineering, ICTP, Trieste, Italy, Feb. 1982.
26. "Results of the REAL-80 Exercise", presented at the Fourth ASTM Meeting, Washington, D.C., March 1982.
27. "The International Reactor Dosimetry File (IRDF-82)", presented at the Fourth ASTM Meeting, Washington, D.C., March 1982.
28. "Verification of Nuclear Cross Section Processing Codes", presented at AERE Harwell, England, May 1982.
29. "Verification of Nuclear Cross Section Processing Codes", presented at the Topical Meeting on Advances in Reactor Physics and Core Thermal Hydraulics, 1069, Kiamesha Lake, New York, September 1982.
30. "Current Problems in the Data Base for a Re-evaluation of the U-235 fission cross section in the Fast Neutron Energy Region", presented at the IAEA Consultants' Meeting on the U-235 Fast Neutron Cross Sections and the Cf-252 Fission Neutron Spectrum", Smolenice, Czechoslovakia, July 1983.
31. "Current Methods and Computer Codes for Processing Nuclear Data and Reactor Calculations", presented at Atomic Energy Headquarters, Tripoli, Libya, September 1983.
32. "Verification of Nuclear Cross Section Processing Codes", presented at Atomic Energy Headquarters, Tripoli, Libya, September 1983.
33. "Verification of Nuclear Cross Section Processing Codes", presented at Nuclear Energy Agency (ENEA), Bologna, Italy, October 1983.
34. "Verification of Nuclear Cross Section Processing Codes", presented at ICTP, Trieste Winter Workshop on Nuclear Model Codes, Trieste, Italy, January 1984.
35. "The Effective use of Small Computers in Physics Applications", presented at the IAEA National Training Course on the Use of Micro Computers, Dar es Salaam University, Tanzania, May 1985.
36. "Verification of Nuclear Cross Section Processing Codes", presented at Institute of Atomic Energy, Beijing, China, September 1985.

37. "The Accuracy of Data Processing", presented at the International State of the Art seminar on Nuclear Data, Cross Section Libraries and their Application in Nuclear Technology, Bonn, October 1985.
38. "Verification of Nuclear Cross Section Processing Codes", presented at the Workshop on Applications in Nuclear Data and Reactor Physics, International Centre for Theoretical Physics, Trieste, February, 1986.
39. "The Use of Personal Computers in Scientific Applications", presented at the Workshop on Applications in Nuclear Data and Reactor Physics, International Centre for Theoretical Physics, Trieste, February, 1986.
40. "The Accuracy of Data Processing", presented at the IAEA Training Course on the Processing of Nuclear Data for use in Applications, Bhabha Atomic Research Centre, Bombay, India, April, 1986.
41. "The Processing of Nuclear Data", six lectures presented at the IAEA Training Course on the Processing of Nuclear Data for use in Applications, Bhabha Atomic Research Centre, Bombay, India, April, 1986.
42. "The Use of Personal Computers in Reactor Physics", presented at the International Atomic Energy Agency's Consultant's Meeting on Reactor Physics Calculations Using Small Computers, December 8-11, 1987, Vienna, Austria
43. "Advances in Personal Computers for Scientific Applications", presented at the International Centre for Theoretical Physics Workshop on Applied Nuclear Theory and Nuclear Model Calculations for Nuclear Technology Applications, February 15 - March 18, 1988, Trieste, Italy
44. "The All Particle Method: Coupled Neutron, Photon, Electron, Charged Particle Monte Carlo Calculations" presented at the Seventh International Conference on Radiation Shielding, September 12 -16, 1988, Bournemouth, England
45. "1990 Status Report on the All Particle Method: Coupled Neutron, Photon, Electron, Charged Particle Monte Carlo Calculations", presented at the Italian Nuclear Energy Agency (ENEA), Bologna Italy, Transport Seminar, February 22, 1990, Bologna, Italy
46. "Advances in Personal Computers for Scientific Applications", presented at the International Centre for Theoretical Physics Workshop on Reactor Physics Calculations for Applications in Nuclear Technology, February 12 - March 16, 1990, Trieste, Italy
47. "The All Particle Monte Carlo Method: Atomic Data Files", presented at the Nuclear Explosives Code Developers Conference, November 6-9, 1990, Monterey, California
48. "Single-Scatter Monte Carlo Compared to Condensed History Results for Low Energy Electrons", presented at the Fifth International Symposium on Radiation Physics, Dubrovnik, Yugoslavia, June 10-14, 1991.
49. "The All Particle Method: 1991 Status Report", presented at the Brazilian Meeting on Reactor Physics and Thermal Hydraulics (VIII ENFIR), Atibaia, Brazil, September 17-20, 1991.
50. "The ENDF/B-VI Photon Interaction Library", presented at the American Nuclear Society Meeting on New Horizons in Radiation Protection and Shielding, Pasco, Washington, April 26-30, 1992.
51. "Photon and Electron Data Bases and Their Use in Radiation Transport Calculations", presented at the Second Topical Meeting on Industrial Radiation and Radioisotope Measurement Applications, Raleigh, North Carolina, Sept. 8-11, 1992.
52. "Photon Interaction Data for ENDF/B-VI", presented at the 1994 Reactor Physics Topical Meeting of the ANS, Knoxville, TN, August 11-15, 1994.

53. "Photon and Electron interaction Data Bases and Their Use in Medical Applications", presented at the 1994 World Congress on Medical Physics and Biomedical Engineering, Rio de Janeiro, Brazil, Aug. 1994.
54. "Incorporating the Livermore Photon Interaction Data Base into the Electron-Photon Monte Carlo Transport Code EGS4", presented at the International Conference on Mathematics and Computations, Reactor Physics, and Environmental Analyses, Portland, Oregon, May 1995
55. "Photon and Electron Data for Use in Accelerator Applications", an invited paper presented at the Fifteenth International Conference on the Application of Accelerators in Research and Industry, held Nov. 4-7, 1998, University of North Texas, Denton, Texas.
56. "TART: Monte Carlo Radiation Transport in Industrial Applications", an Invited Paper for presentation at the Twelfth Biennial Topical Meeting of the Radiation Protection and Shielding Division, of the American Nuclear Society, April 14-17, 2002 in Santa Fe, New Mexico
57. "ENDF/B-VI Coupled Photon-Electron Data for Use in Radiation Shielding Applications", Lawrence Livermore National Laboratory, UCRL-JC-134196, February 2002, ", an Invited Paper for presentation at the Twelfth Biennial Topical Meeting of the Radiation Protection and Shielding Division, of the American Nuclear Society, April 14-17, 2002 in Santa Fe, New Mexico
58. "Application of MCNP, MERCURY and TART to Calculation of the National Ignition Facility (NIF) Shielding", an Invited Paper for presentation at the American Nuclear Society meeting, Nov. 12-16, 2006 in Albuquerque, New Mexico.
59. "COG – Publicly Available Now to Criticality Safety Practitioners", presented at the 8th International Conference on Nuclear Criticality Safety, May 28 through June 1, 2007, in St. Petersburg, Russia.
60. "PREPRO Accomplishments", LLNL-PRES-469876, March 2011, Presented at the Nuclear Criticality Program Technical Conference at Oak Ridge National Laboratory, March 1, 2011.
61. "An Alternative Approach to Creating ACE Data Files for Use in Monte Carlo Codes", Presented at the Nuclear Data Section, IAEA, Vienna, Consultant's Meeting, October 2015.
62. "On the **Self-Shielding** in the **Unresolved Resonance Range**", presented at the 29th International Conference Nuclear Energy for New Europe (NENE 2020), September 7-10, Portoroz, Slovenia