Publication List

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Books

1. *Research-Based Reform of University Physics*, E. F. Redish & P. C. Cooney, eds. (AAPT, 2007). Online at http://per-central.org/per_reviews/media/volume1/.

2. *Maryland Tutorials in Physics Sense-Making*, A. Elby, R. Scherr, T. McCaskey, R. Hodges, E. F. Redish, D. Hammer, & T. Bing. DVD. Physics tutorial worksheets with instructor's guides and annotated video of students using the materials. (2007).

3. *Research on Physics Education, Proceedings of the International School of Physics, Enrico Fermi, Course CLVI*, July 15-25, Varenna, Italy, Edward F. Redish and Matilde Vicentini, editors (IOS Press, 2004).

4. *Activity-Based Tutorials: Volume 1 Introductory Physics*, M. C. Wittmann, R. N. Steinberg, E. F. Redish, and the U. of Maryland PERG (John Wiley & Sons, Inc., 2004).

5. *Teaching Physics With the Physics Suite*, Edward F. Redish (John Wiley & Sons, Inc., 2003). [to be published in Japanese, summer 2012]

6. *Understanding Physics*, 4 Volumes, K. Cummings, P. Laws, E. Redish, and P. Cooney (John Wiley & Sons, Inc., 2003).

7. *The Changing Role of Physics Departments in Modern Universities*, Proceedings of the International Conference on Undergraduate Physics Education (ICUPE), College Park, MD, July 31-August 3, 1996, Edward F. Redish and John S. Rigden, editors, AIP Conference Proceedings **399**, two volumes (AIP, Woodbury NY, 1997) 1175 pages.

8. *Computers in Physics Instruction*, Proceedings of a Conference held in Raleigh, NC, Aug. 1-5, 1988, E. F. Redish and J. Risley, editors (Addison-Wesley, 1990).

9. *Computers in PhysicsIinstructions: Abstracts of contributed papers*, Conf. on Computers in Physics Instruction, J. S. Risley and E. F. Redish, editor (North Carolina State U., Raleigh, NC, 1988).

Software

1. *The Comprehensive Unified Physics Learning Environment*, J. Wilson and E. F. Redish (Physics Academic Software, Raleigh NC, 1994)

2. *The M.U.P.P.E.T. Utilities: Programming Tools for Turbo Pascal with Physics Examples*, E. Redish, J. Wilson, and I. Johnston, (Physics Academic Software, Raleigh, NC, 1994) honorable mention, utilities, *Computers in Physics* first annual software contest, 1990

3. *Orbits*, K. Hennacy, J. Harold, and E. Redish (Physics Academic Software, Raleigh, NC, 1990) (winner, best simulation, *Computers in Physics* first annual software contest, 1990)

4. *Thermo*, J. Harold, G. Norkus, and E. Redish, unpublished (honorable mention, best simulation, *Computers in Physics* first annual software contest, 1990)

Contributions to Edited Books

1. Resources, Framing, and Transfer, David Hammer, Andrew Elby, Rachel E. Scherr, and Edward F. Redish, in *Transfer of Learning from a Modern Multidisciplinary Perspective*, Jose Mestre, editor, chapter 3 (Information Age Publishing, 2004) 89-120.

2. Educational assessment and underlying models of cognition, Lei Bao and Edward F. Redish, in *The Scholarship of Teaching and Learning in Higher Education: Contributions of Research Universities* William E. Becker and Moya Andrews, eds., chapter 11 (Indiana University Press, 2004).

3. The CUPLE project: A hyper- and multi-media approach to restructuring physics education, Edward F. Redish, Jack M. Wilson, and Chad K. McDaniel, in *Sociomedia*, E. Barrett ed. (MIT Press, 1992), pp. 219-256.

4. The coming revolution in physics instruction, Edward F. Redish, in *Calculus for a New Century*, edited by L. A. Steen (Mathematical Associate of America, 1988), pp. 106-112. Reprinted as La revolution a venir dans l'enseignement de Physique, in Renouveler L'Enseignement, Gazette de Mathematiciens, avril 1991, Suppl. no. 48 (Soc. Math. de France), pp. 73-80.

5. Applications of three-body methods to many-body hadronic systems, Edward F. Redish, in *Modern Three-Hadron Physics*, A. W. Thomas, ed. (Springer-Verlag, Berlin, 1977), pp. 181-243.

Articles Published in and Submitted to Refereed Journals

1. Ontological metaphors for negative energy in an interdisciplinary context, B. W. Dreyfus, B. D. Geller, J. Gouvea, V. Sawtelle, C. Turpen, & E. F. Redish, submitted Physical Review - STPER (2013).

2. A Vision of Insterdisciplinary Education: Students' reasoning about 'high-energy bonds' and ATP, B. W. Dreyfus, V. Sawtelle, C. Turpen, and E. F. Redish, submitted to Physical Review -STPER (2013).

3. Oersted Lecture 2013: How should we think about how our students think? E. F. Redish, *Am. J. Phys.*, in press (2014).

4. NEXUS/Physics: An interdisciplinary repurposing of physics for biologists, E. F. Redish, C. Bauer, K. L. Carleton, T. J. Cooke, M. Cooper, C. H. Crouch, B. W. Dreyfus, B. Geller, J. Giannini, J. Svoboda Gouvea, M. W. Klymkowsky, W. Losert, K. Moore, J. Presson, V. Sawtelle, K. V. Thompson, C. Turpen, & R. Zia, *Am. J. Phys.* in press (2014).

5. Chemical energy in an introductory physics course for the life sciences, B. W. Dreyfus, B. D. Geller, J. Gouvea, V. Sawtelle, C. Turpen, & E. F. Redish, *Am. J. Phys.*, in press (2014).

6. Infusing quantitative approaches throughout the biological sciences curriculum, K. V. Thompson, T. J. Cooke, W. F. Fagan, D. Gulick, D Levy, K. C. Nelson, E. F. Redish, R. F. Smith, & J. Presson, *International Journal of Mathematical Education in Science and Technology* (2013) *doi:10.1080/0020739X.2013.812754.*

7. Reinventing introductory physics for the life sciences, D. C. Meredith and E. F. Redish, *Physics Today*, **66**:7 (July 2013) 38-43. *doi: 10.1063/PT.3.2046*

8. Learning Each Other's Ropes: Negotiating interdisciplinary authenticity, E. F. Redish and T. J. Cooke, *Cell Biology Education - Life Science Education*, 12 (June 3, 2013) 175-186. *doi:10.1187/cbe.12-09-0147*..

9. Disciplinary Authenticity: Enriching the reform of introductory physics courses for life science students, J. Watkins, J. E. Coffey, E. F. Redish, and T. J. Cooke, accepted for publication in *Physical Review Special Topics: Physics Education Research* (2012) 19 pages.

10. Epistemic complexity and the journeyman-expert transition, T. J. Bing and E. F. Redish, submitted to *Physical Review Special Topics: Physics Education Research* **8** 010105(2012) 11 pages.

11. On Static and Dynamic Intuitive Ontologies, D. Hammer, A. Gupta, and E. F. Redish, *The Journal of the Learning Sciences*, **20**, 163-168 (2011)

12. The Case for a Dynamic Model Of Expert and Novice Ontologies in Physics, A. Gupta, D. Hammer, and E. F. Redish, *Journal of the Learning Sciences* **19**:3, 285-321 (2010).

13. Analyzing Problem Solving Using Math In Physics: Epistemic Framing Via Warrants, T. J. Bing and E. F. Redish, *Physical Review Special Topics: Physics Education Research* **5** 020108 (2009) 15 pages.

14. Reinventing College Physics for Biologists: Explicating an Epistemological Curriculum, E. F. Redish and D. Hammer, *Am. J. Phys.,* **77**, 629-642 (2009).

15. Making sense of the legendre transformation, R. K.-P. Zia, E. F. Redish, and S. R. McKay, *Am. J. Phys.* **77**, 614-622 (2009).

16. Looking Beyond Content: Skill Development for Engineers, Edward F. Redish and Karl A. Smith, *Journal of Engineering Education*, **97** (2008) 295-307.

17. Symbolic manipulators affect mathematical mindsets, Thomas J. Bing and Edward F. Redish, *American Journal of Physics* **76** (2008) 418-424.

18. Elements of a cognitive model of physics problem solving: epistemic games, Jonathan Tuminaro and Edward F. Redish, *Physical Review Special Topics: Physics Education Research* **3** (2007) 020101, 22 pp.

19. Knowledge activation and organization in physics problem solving, Mel Sabella and Edward F. Redish, *American Journal of Physics* **75**(11) (2007) 1017-1029.

20. Reverse Engineering the Solution of a Simple Physics Problem: Why Learning Physics Is Harder Than It Looks, Edward F. Redish, Rachel E. Scherr, and Jonathan Tuminaro, *The Physics Teacher* **44**(5) (2006) 293-300.

21. Model analysis: assessing the state of student learning using multiple choice exams, Lei Bao and Edward F. Redish, *Physical Review Special Topics: Physics Education Research* **2,** 010103 (2006) 16 pp.

22. Newton's zeroth law: learning physics from listening to our students, Rachel E. Scherr and Edward F. Redish, *The Physics Teacher* **43**(1) (2005) 41-45.

23. Understanding and affecting student reasoning about sound waves, Michael C. Wittmann, Richard N. Steinberg, and Edward F. Redish, *The International Journal of Science Education* **25**(8) (2003) 991-1013.

24. Investigating student understanding of quantum physics: spontaneous models of conductivity, Michael C. Wittmann, Richard N. Steinberg, and Edward F. Redish, *Am. J. Phys*. **70**, (2002) pp. 218-226.

25. Understanding probabilistic interpretations of physical systems: a prerequisite to learning quantum physics, Lei Bao and Edward F. Redish, *Am. J. Phys*. **70** (2002) pp. 210-217.

26. Concentration analysis: a quantitative assessment of student states, Lei Bao and Edward F. Redish, *Am. J. Phys., PER Supplement* **69**(S1) (2001) pp. S45-S53.

27. Discipline-based education and education research: the case of physics, Edward F. Redish, *Jour. of Applied Developmental Psychology* **21**(1) (2000) pp. 85-96.

28. Millikan award lecture (1998): building a science of teaching physics, Edward F. Redish, *Am. J. Phys.* **67**, 562-573 (July, 1999). (Japanese translation published in *Buturi Kyoiku* **48**(1) (2000) 37-50.)

29. Resource letter per-1: physics education research, L. C. McDermott and E. F. Redish, *Am. J. Phys.* **67**, 755-767 (September, 1999).

30. Making sense of how students make sense of mechanical waves, M. Wittmann, R. N. Steinberg, and E. F. Redish, *The Physics Teacher* **37** (January 1999) 15-21.

31. Teaching physics: figuring out what works, E. F. Redish and R.N. Steinberg, *Physics Today* **52** (January 1999) 24-30.

32. Student expectations in introductory physics, Edward F. Redish, Jeffery M. Saul, and Richard N. Steinberg, *Am. J. Phys.* **66** (1998) 212-224.

33. On the effectiveness of active-engagement microcomputer-based laboratories, Edward F. Redish, Jeffery M. Saul, and Richard N. Steinberg, *Am. J. Phys.* **65** (1997) 45-54.

34. The implication of cognitive studies for teaching physics, Edward F. Redish, *Am. J. Phys.* **62** (1994) 796-803. (Excerpted for *The Catalyst*, education newsletter for the NRC, Issue #7, Fall/Winter 1996)

35. Is the computer appropriate for teaching physics?, Edward F. Redish , *Computers in Physics* **7** (December 1993), .

36. Student programming in the introductory physics course: M.U.P.P.E.T., Edward F. Redish and Jack M. Wilson, *Am. J. Phys*., **61** (1993) 222-232.

37. The comprehensive unified physics learning environment: part i. Background and system operation, J. M. Wilson and E. F. Redish, *Computers in Physics* **6** (March/April, 1992) 202-209.

38. The comprehensive unified physics learning environment: part ii. The basis for integrated studies, J. M. Wilson and E. F. Redish, *Computers in Physics* **6** (May/June, 1992) 282-286.

39. Isovector content of N-N potentials and Pauli-forbidden states, Thomas E. Kiess and Edward F. Redish, *Phys. Rev.* **C43**, 2509 (1991).

40. Full-folding optical potentials in elastic proton-nucleus scattering, Ch. Elster, Taksu Cheon, Edward F. Redish, and P. C. Tandy, *Phys. Rev.* **C41**, 814 (1990).

41. Curriculum reform in physics: the computer as a vehicle, E. F. Redish, *EDUCOM Review*, **24,** No. 1, 24 (Spring, 1989).

42. Using computers in teaching physics, J. M. Wilson and E. F. Redish, *Physics Today* **42**, No. 1, 34 (1989). (Reprinted in *Parity*, 4, No. 7, p.2 (1989), translated into Japanese)

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44. The physical contents of pseudopotential interactions, M. H. Macfarlane and E. F. Redish. *Phys. Rev.* **C37**, 2245 (1988).

45. The M.U.P.P.E.T. manifesto, W. M. MacDonald, E. F. Redish and J. M. Wilson, *Computers in Physics* **2**, No. 4, 23 (July/Aug. 1988).

46. From here to the future--the impact of the computer on college physics teaching, E. F. Redish, *Academic Computing* **3**, No. 4, 18 (Nov. 1988).

47. Microscopic prescriptions for elastic and inelastic scattering, E. F. Redish and K. Stricker-Bauer. *Phys. Rev.* **C35**, 1183 (1987).

48. The off-energy-shell behavior of realistic potential models, E. F. Redish and K. Stricker-Bauer. *Phys. Rev.* **C36**, 513 (1987).

49. Convergence of distorted wave methods. I. Theory and a simple example, D. S. MacMillan and E. F. Redish, *Phys. Rev.* **C33**, 804 (1986).

50. Non-orthogonality and overcompleteness in direct nuclear reactions, M. C. Birse and E. F. Redish, *Nucl. Phys*. **A406**, 149 (1983).

51. Nonlocality effects in inelastic nucleon-nucleus scattering, E. F. Redish and K. Stricker-Bauer, *Phys. Lett.* **B133**, 1 (1983).

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53. Effective three-body problems in multiparticle reactions, Gy. Bencze, E. F. Redish and W. N. Polyzou, *Nucl. Phys* **A390**, 253 (1982).

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55. Partition combinatorics and multi-particle scattering theory, K. L. Kowalski, W. N. Polyzou and E. F. Redish, *J. Math. Phys*. **22**, 1965 (1981).

56. The dominant partition theorem, R. M. Dixon and E. F. Redish, *J. Math. Phys*. **21**, 372 (1980).

57. Distorted Faddeev equations, E. F. Redish, *Phys. Lett.* **90B**, 188 (1980).

58. The two-potential formula and the integral form of the distorted faddeev equations, Gy. Bencze and E. F. Redish, *Phys. Lett.* **91B**, 1 (1980).

59. Do quasi-free reaction mechanisms explain reaction cross sections in intermediate energy proton-nucleus scattering? Y. Alexander, E. F. Redish, J. W. Van Orden and S. J. Wallace, *Phys. Rev. Lett.* **44**, 1579 (1980).

60. Unified connected theory of few-body reaction mechanisms in n-body scattering theory, W. Polyzou and E. F. Redish, Ann. Phys **119**, (1979).

61. Efimov effect in a solvable model, A. Fonseca, P. Shanley and E. F. Redish, *Nucl. Phys*. **A320**, 273 (1979).

62. Structure of the many-body wave function for scattering, M. L'Huillier, P. C. Tandy, E. F. Redish, *J. Math. Phys*. **19**, 1276 (1978).

63. General algebraic theory of identical particle scattering, Gy. Bencze and E. F. Redish*, J. Math. Phys*. **19**, 1909 (1978).

64. Proof of the bencze-redish-sloan equations, P. Benoist-Gueutal, M. L'Huillier, E. F. Redish, P. C. Tandy, *Phys. Rev.* **C17**, 1924 (1978).

65. Three-body approach to the single scattering optical potential, P. C. Tandy, E. F. Redish and D. Bollé, *Phys. Rev.* **C16**, 1924 (1977).

66. Nucleon knockout by kaons, R. D. Koshel, E. F. Redish and P. J. Moffa, *Phys. Rev.* Lett. **39**, 1319 (1977).

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71. Reactive content of the single-scattering optical potential, P. C. Tandy, D. Bollé and E. F. Redish, *Phys. Rev.* Lett. **35**, 921 (1975).

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81. (p,2p) reactions with divers potentials, E. F. Redish, G. J. Stephenson, Jr., G. M. Lerner and M. I. Haftel, *Phys. Rev.* **C6**, 1559 (1972).

82. The two-nucleon t-matrix half off the energy shell: a direct approach, H. S. Picker, E. F. Redish and G. J. Stephenson, Jr., *Phys. Rev.* **C4**, 287 (1971).

83. Off-shell effects in knockout reactions, E. F. Redish, G. J. Stephenson, Jr., and Gerald M. Lerner, *Phys. Rev.* **C2**, 1665 (1970).

84. A perturbation theory of nuclear scattering including recoil, E. F. Redish and F. Villars, Ann. Phys. **56**, 355 (1970).

Book reviews, other articles and notes

1. Presentation of the course "Research in Physics Education", Edward F. Redish, *Il Nuovo Saggiatore, Bolletitino della Societya Italiana di Fisica*, **19**:5-6, 31-32 (2003)

2. Forward to physlets for the physics instructor, in *Phylets: Teaching Physics with Interactive Curricular Material,* by W. Christian and M. Belloni (Prentice Hall, 2001) xvi-xx.

3. Review of teaching introductory physics, by Arnold Arons, Edward F. Redish, *Physics Today* **50**, 61-62 (July 1997).

Invited Papers Presented at Scientific Meetings and Published in Proceedings

1. The Role of Context and Culture in Teaching Physics: The implication of disciplinary differences, E. Redish, keynote address, in *Proceedings of the World Conference on Physics Education*, Istanbul, Turkey, July 1-6, 2012, M. F. Tasir, ed., 22 pages. (Apegem Adamei, 2014).

2. Introducing students to the culture of physics: explicating elements of the hidden curriculum, E. F. Redish, *Proceedings of the Physics Education Research Conference, Portland, OR, July 2010, AIP Conf. Proc.* **1289** (2010) 49-52.

3. Mathematization in physics lessons: problems and perspectives, G. Pospiech, et al., in *Physics Community and Cooperation, GIREP-EPEC & PHEC 2009 International Conf*., *August 17-21, Leicester, UK, Vol. 2,* 66-96, including, Using math in physics: warrants and epistemological framing, E. F. Redish and T. J. Bing, (2010) 71-76.

4. New directions of research on undergraduate physics education, Edward F. Redish, invited plenary lecture, in *Proceedings of the International Conference on Physics Education 2006 – Toward Development of Physics for All*, *Tokyo Japan, August 13-18 2006, Journal of the Physics Education Society of Japan, Supplement* 9-19 (2008).

5. The cognitive blending of mathematics and physics knowledge, Thomas J. Bing and Edward F. Redish, invited poster session, in *Proceedings of the Physics Education Research Conference, Syracuse, NY, July 2006 AIP Conf. Proc.* **883**, 26-29 (2007).

6. Problem solving and the use of math in physics courses, Edward F. Redish, in *Proceedings of the Conference, World View on Physics Education in 2005: Focusing on Change, Delhi, August 21-26, 2005* (to be published).

7. Changing student ways of knowing: what should our students learn in a physics class? Edward F. Redish, in Proceedings of the Conference, World View on Physics Education in 2005: Focusing on Change, Delhi, August 21-26, 2005 (to be published).

8. Twenty questions for per: how does it all fit together? Edward F. Redish and Michael C. Wittmann, in Proceedings of the Physics Education Research Conference, Sacramento, CA, August 2004, *AIP Conf. Proc*. **790**, 11 (2005)

9. A Theoretical Framework for Physics Education Research: Modeling Student Thinking, Edward F. Redish, in Proceedings of the International School of Physics Enrico Fermi, Research in Physics Education, Course CLVI, E. Redish and M. Vicentini, editors, pp. 1-60 (IOS Press, 2004).

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12. The influence of student understanding of classical physics when learning quantum mechanics, R.N. Steinberg, M.C. Wittmann, L. Bao, E.F. Redish, Research on the Teaching and Learning of Quantum Sciences, NARST Annual Meeting, Boston, March 1999. Available on WWW at http://www.phys.ksu.edu/perg/papers/narst/

13. The distribution and change of student expectations in introductory physics, Edward F. Redish, Richard N. Steinberg, and Jeffery M. Saul, Invited poster, presented at The International Conference on Undergraduate Physics Education (ICUPE), College Park, Maryland July 31-August 3, 1996. AIP Conf. Proc. 399, 689-697 (1997).

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15. New models of physics instruction based on physics education research, E. F. Redish, University of Maryland preprint, April 1996, Vorträge, Deutsche Physikalishe Gesellschaft, Didaktik der Physik, 60. Physikertagung, K. H. Lotze, Ed., 51-65, Jena, Germany, (March 1996).

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17. What can a physics teacher do with a computer? Edward F. Redish, published in Conference on the Introductory Physics Course: On the occasion of the retierment of Robert Resnick, Jack M. Wilson, Ed. (Wiley, 1997) 47-60, Rensselaer Polytechnic Institute, Troy NY (May 1993).

18. Conference summary, Edward F. Redish, published in Spin and Isospin in Nuclear Interactions, S. Wissink et al., eds. (Plenum, 1991 or 92), Telluride, CO (March 11-15, 1991)

19. The impact of the computer on the physics curriculum, Edward F. Redish, published in Conf. on Computers in Physics Instruction (Addison-Wesley, Reading, MA, 1990) Raleigh, NC (Aug. 1-5, 1988)

20. Time-dependent calculations in quantum hadrodynamics, J. Adams and Edward F. Redish, published in Relativistic Nuclear Many-Body Physics, (World Scientific Pub., 1988). Columbus, OH, June 1988.

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22. Theoretical techniques in few-body problems, Edward F. Redish, published in Few-Body Systems in Particle and Nuclear Physics, Nucl. Phys. A468, 473c (1987). Tokyo and Sendai, Japan

23. The nucleon optical potential: an extended three-body problem or a restricted infinite-body problem? Edward F. Redish, published in Few-Body Approaches to Nuclear Reactions at Tandem and Cyclotron Energy Regions, (World Scientific Pub., 1987), pp. 263-281. Tokyo, Japan, August 22-24, 1986.

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28. The structure of the scattering wave function in the n-body problem, Edward F. Redish, International Symposium on Nuclear Reaction Models, Balatonfured, Hungary, June 27-July 1, 1977.

29. Generalized faddeev theory of nuclear reactions, Edward F. Redish, published in Few-Body Dynamics, Mitra, Slaus, Bhasin and Gupta, eds. (North-Holland, Amsterdam, 1976), p. 86. Conference on Few-Body Problems in Nuclear and Particle Physics, Delhi, India, December 1975

30. Nucleon knockout: reaction mechanisms, Edward F. Redish, published in Momentum Wave Functions-1976, D. W. Devins, ed. (AIP, N.Y., 1977), pp. 111-126. Workshop on the Determination of Momentum Wavefunctions, Bloomington, Indiana, May 31-June 4, 1976.

Invited Papers and Workshops Presented at Scientific Meetings, Unpublished

1. How should we think about how our students think? What we learn from PER, E. F. Redish [29. May 2013, plenary lecture, Canadian Association of Physicists annual meeting, Montreal Quebec, Canada.]

2. How having a theory of learning changes what I do in class on Monday morning, E. F. Redish [29. May 2013, invited lecture, Canadian Association of Physicists annual meeting, Montreal Quebec, Canada.]

3. The NEXUS/Physics class: What does physics have to offer biology and pre-med students? E. F. Redish [26. May 2013, invited lecture, Canadian Association of Physicists annual meeting, Montreal Quebec, Canada.]

4. The Janice A. Cutler Symposium on Science Education, Panelists, B. Coppola, D. Ebert-May, & E. F. Redish [1. March, 2013, New York Academy of Sciences, New York NY.]

5. Rethinking physics for biologists and pre-meds: The NEXUS Project, E. F. Redish [17. February, 2013, AAAS Annual Meeting, Boston, MA.]

6. The implications of a theoretical framework for physics education research, Edward F. Redish [7. January, 2013, Oersted Award Lecture, AAPT National Winter Meeting, New Orleans, LA.]

7. Why having a theory of learning changes can change what you do in class on monday, Edward F. Redish [2 November, 2012, *invited talk, Workshop for New Physics and Astronomy Faculty, Reunion Meeting, College Park, MD*]

8. Framing, Epistemology, and All That Jazz: Why it Matters, Edward F. Redish & Vashti Sawtelle [30. July 2012, invited talk, AAPT National Summer Meeting, Philadelphia, PA.]

9. Adding value through interdisciplinary conversations, Edward F. Redish [3. June 2012, plenary talk, *2nd Conference on Transforming Research in Undergraduate STEM Education (TRUSE)*, St. Paul, MN.]

10. Reforming physics for biology and pre-meds: Disciplinary barriers, E. F. Redish [2. August, 2011, invited talk, AAPT National Summer Meeting, Omaha, NE.]

11. When biology students meet physics, the simple becomes complex: or is it vice versa? Edward F. Redish [2. October, 2010, invited talk, *Symposium of Complex Driven Systems,* Virginia Tech, Blacksburg VA]

12. Why having a theory of learning changes what I do in class on monday, Edward F. Redish [6 November, 2010, *invited talk, Workshop for New Physics and Astronomy Faculty, Reunion Meeting, College Park, MD*]

13. New lenses on developing physics expertise, Edward F. Redish, [7. August, 2010, Upper Division Physics Education Research Conference, Wabash College, Crawfordsville, IN]

14. Characterizing expertise in physics problem solving, Edward F. Redish and Thomas J. Bing, invited talk, to the AAPT Summer Meeting, Portland OR, July (2010).

15. Implication of memory model for physics problem solving, Edward F. Redish, invited talk to the AAPT/APS Joint National meeting, Washington, DC February 16 (2010).

16. How people learn physics, E. F. Redish, invited talk to the American Association of Physicists of Medicine conf., Houston, TX August 1 (2008).

17. What is the state of evidence in discipline-based education research? Edward F Redish, invited talk to the National Academy of Sciences / National Research Council Symposium Promising Practices, Washington DC June 30 (2008).

18. Do external mathematical tools affect how students think about physics? Edward F Redish and Tom Bing, invited talk, Gordon Research Conference on Computation in Physics, Bryant University RI, June 9 (2008).

19. Figuring out what it means to understand physics: the math connection, Edward F Redish, invited talk, to the National Societies of Black and Hispanic Physicists, Washington DC, February 22, (2008).

20. What can we expect from the textbook of the future? E. F. Redish, invited talk, AAPT National Meeting, Greensboro, NC August 1 (2007).

21. New directions in physics education research, E. F. Redish, invited talk, AAPT Regional Meeting, New Jersey Section, Princeton, NJ March 17, 2007.

22. Physics, math, and making sense: understanding how brains learn science, E. F. Redish, Invited talk, APS Meeting, Denver, CO March 5, 2007.

23. Why having a theory of learning changes what I do in class on monday, E. F. Redish, PTEC Workshop, Boulder, CO March 4, 2007.

24. Students' construction of understanding of abstract vector spaces, T. J. Bing, E. F. Redish, and D. Hammer (presented by Bing), invited talk, AAPT National Meeting, Seattle, WA January 9, 2007.

25. New directions of research on undergraduate physics education, Edward F. Redish, keynote address, International Conference on Physics Education: Physics for All, Tokyo, Japan, August 14, 2006. (Handout translated into Japanese)

26. The Physics Suite, Edward F. Redish, Priscilla Laws, and David Sokoloff, workshop, International Conference on Physics Education: Physics for All, Tokyo, Japan, August 16, 2006.

27. The challenge of interdisciplinary stem service classes: How can physics, chemistry, math, and computer science support a redesigned biology curriculum? Edward F. Redish, keynote address, Biennial Chemistry Conference on Education, Lafayette, IN, August 2, 2006.

28. Teachers' workshop; Part I: Introduction to per and learning theory; Part II: New pedagogical tools; Part III: E-games and unpacking, Edward F. Redish, Teachers' Advanced Study Institute, Goddard Space Flight Center, July 18, 2006.

29. Why having a theory of learning changes what I do in class monday, Edward F. Redish, invited talk, American Association of Physics Teachers national meeting, Syracuse, NY, July 25, 2006.

30. Uses and limitations of epistemological surveys for informing course design, Timothy McCaskey, Andrew Elby, and Edward F. Redish, American Association of Physics Teachers national meeting, Syracuse, NY, July 26, 2006.

31. How we think: Should a teacher care? Edward F. Redish, University of Maine High School Teacher's get together, public lecture, December 8, 2005.

32. Does PER need theory? If so, what kind? Plenary invited talk, Foundations and Frontiers of Physics Education Research Conference, Bar Harbor, ME, August 15, 2005.

33. Changing student ways of knowing: What should our students learn in a physics class? Banquet talk, Physical Sciences Center advisory panel meeting, London, England, May 5, 2005.

34. Deconstructing problem solving in algebra-based physics, workshop, NARST National Meeting, Dallas, TX, April 5, 2005.

35. How students work: Should a teacher care? Edward F. Redish, plenary talk presented at the Auburn University Dead Day Symposium, Auburn, AL, May 4, 2005.

36. How we think: Should a teacher care? Edward F. Redish, banquet talk presented to Chicago Symposium Series, Excellence in Teaching Mathematics and Science: Research and Practice, DePaul University, Chicago, IL, February 4, 2005.

37. Free-range laboratories: Can less guidance lead to more engagment and learning? Edward F. Redish, Mel Sabella, and Rebecca Lippmann-Kung, workshop presented to Chicago Symposium Series, Excellence in Teaching Mathematics and Science: Research and Practice, DePaul University, Chicago, IL, February 4, 2005.

38. Discipline-based science education research, Edward F. Redish, invited talk presented to the Board on Science Education, National Academy of Sciences, Irvine, CA, December 3, 2004.

39. Physics education research: A personal historic overview, Edward F. Redish, invited talk presented to advisory board, Center for the Advancement of Science and Engineering Education, National Academy of Engineering, Savannah, GA, October 19, 2004.

40. Cognitive models matter for creating and interpreting classroom measurements, A. Elby, T. McCaskey, and E. F. Redish, invited talk, American Association of Physics Teachers national meeting, Sacramento, CA, August 4, 2004.

41. Resources, framing, and transfer, D. A. Hammer, A. Elby, R. Scherr, and E. F. Redish, invited talk, American Association of Physics Teachers national meeting, Sacramento, CA, August 2, 2004.

42. Changing student ways of knowing: What should our students learn in a physics class? E. F. Redish, invited seminar, Symposium on physics education: Meeting the challenges of university of physics education, University of Lund, Sweden, June 3, 2004.

43. Alternative ways of approaching student learning in physics, R. L. Kung and E. F. Redish, invited workshop, Symposium on the Scholarship of Physics Teaching – Looking at Alternative Ways of Teaching Physics, Uppsala University, Sweden, June 1, 2004.

44. Changing student ways of knowing: What should our students learn in a physics class? E. F. Redish, invited seminar, Ontario Association of Physics Teachers, University of Ontario Institute of Technology, Oshawa, Canada, May 28, 2004.

45. The future of physics education: Building an applied science, invited plenary talk, Joint APS/AAPT regional meeting, Berkeley, CA, November 15, 2003.

46. Our model of how a student works: does it matter for teaching physics? Banquet talk, Chesapeake Section regional AAPT meeting, Towson University, Baltimore, MD, April 11, 2003.

47. Our model of how a student works: Does it matter for teaching physics? Plenary address, joint meeting of Texas Section of the AAPT, the Texas Section of the APS, and Zone 13 of the SPS, Southwest Texas State University, San Marcos, TX, March 8, 2003.

48. Panelist, Peer Review of Education Research Grant Applications Implications, Considerations, and Future Directions, National Academy of Sciences, Washington DC, February 25, 2003.

49. Discipline-based educational research: A (theoretical) physicist's perspective, NSF Symposium for the joint EHR/CMPS Advisory Boards, Washington, DC, November 7, 2002.

50. Our model of how a student works: Does it matter for teaching science? Keynote address, Conference on Integrating Science and Mathematics Education Research into Teaching, Orono, ME, June 23, 2002.

51. Developing student expectations in algebra-based physics, invited talk, Conference on Integrating Science and Mathematics Education Research into Teaching, Orono, ME, June 23, 2002.

52. Thinking about thinking: Making the transition from classical to quantum physics, invited talk, Gordon Research Conference on Physics Research and Education: Quantum Mechanics, Hadley, MA, June 9, 2002.

53. Teaching physics for other sciences and engineering: What do we have to offer? Keynote address, Florida regional AAPT meeting, University of Central Florida, Orlando FL, April 13, 2002.

54. Metacognitive instruction: Raising the level of classroom discourse, invited talk, Weizmann Institute Symposium, honoring the retirement of Uri Ganiel, Rehovoth, Israel, September 12, 2001.

55. What can astronomy education learn from physics education research? invited talk, AAPT National meeting, San Diego, CA, January 10, 2001.

56. Seeing the light: What's so hard about teaching optics? invited talk, the Optical Society, Providence, RI, October 26, 2000.

57. What are our students learning and how can we make sense of what they do? Workshop, Math and Science Teacher Education Program (MASTEP), City College of San Francisco, San Francisco, CA, March 18, 2000. (3 hour workshop)

58. Quantum mechanics is harder than it looks: Helping students get beyond classical physics, invited talk, AAPT Oregon Section, Portland Community College, Portland, OR, Feb. 11, 2000.

59. How should we think about how our students think? Some lessons from physics, invited talk, Gordon Conference on Innovations in College Chemistry Teaching, Connecticut College, New London CT, Jun 19-24, 1999,

60. Twenty years of physics education research: What we have learned? Centennial Symposium Invited talk, APS/AAPT meeting, Atlanta, GA, March 24, 1999.

61. Making sense of what happens in physics classes: Analyzing student learning, Centennial Symposium Invited talk, APS/AAPT meeting, Atlanta, GA, March 24, 1999.

62. Using the computer in teaching physics: can it really help students learn? Invited talk, AAPT Winter Meeting, Anaheim, CA, January 12, 1999.

63. The role of physics education research in reforming undergraduate education, Invited talk, Revitalization of Physics Education Conference, Arlington, VA, 3 October, 1998.

64. Robert a. Millikan award lecture -- building a science of teaching physics: learning what works and why, AAPT Summer meeting, Lincoln, NE, August 6, 1998.

65. The hidden curriculum: what do we really want our students to learn? Plenary talk, APS/AAPT meeting Columbus, OH, April 1998.

66. Students' difficulties in applying mathematics for solving physics problems, with Gilli Shama, 25th annual meeting of the Research Council for Diagnostic and Prescriptive Mathematics, College Park, MD, February 19-21, 1998.

67. Why is it so hard to teach physics? New Orleans Workshop of teachers, LSU, Baton Rouge NO, January 9, 1998.

68. New models of learning and teaching, Keynote address, The European Physics Education Network (EUPEN) first General Forum, Brugge (Belgium), August 29-30, 1997.

69. Firing line: a look at the issues, panelist, The Second Math Across the Curriculum Workshop, Villanova University, Villanova PA, June 11-13, 1997.

70. The MATC evaluation program -- progress and plans, session organizer and panelist, The Second Math Across the Curriculum Workshop, Villanova University, Villanova PA, June 11-13, 1997.

71. Evaluating learning gains: What do we want our students to know? Symposium on Teaching Introductory Physics Using Interactive Teaching Methods and Computers, Dickinson College, Carlisle PA, June 19-20, 1997.

72. Mathematical tutorials: Properties of sound, with Richard Steinberg and Mel Sabella, Workshop at Symposium on Teaching Introductory Physics Using Interactive Teaching Methods and Computers, Dickinson College, Carlisle PA, June 19-20, 1997.

73. New models of learning and teaching, AAPT/APS Department Chairs Conference, College Park MD, May 10 1997.

74. Tutorial workshop, with Richard Steinberg and Mel Sabella, AAPT/APS Department Chairs Conference, College Park MD, May 10 1997.

75. Student misconceptions on classical issues at the boundary of quantum mechanics, Joint APS/AAPT Meeting, Washington DC, April 18, 1997.

76. Measuring student expectations in university physics: The MPEX survey, AAPT Winter Meeting, Phoenix, AZ, January 1997.

77. MATHEMATICAL TUTORIALS IN INTRODUCTORY PHYSICS, Edward F. Redish and Richard N. Steinberg, *Revitalizing Introductory Physics: A Project Kaleidoscope Workshop*, LSU, Baton Rouge LA, Nov. 15-17, 1996.

78. WHY IS IT SO HARD TO TEACH PHYSICS? AAPT Regional Meeting, Northeast Section, U. Mass, Amherst MA, Nov. 9, 1996.

79. DISCIPLINE-BASED EDUCATION AND EDUCATION RESEARCH: THE CASE OF PHYSICS, Edward F. Redish, Invited talk, presented at workshop The Sciences of Science Learning, National Academy of Sciences, September 6, 1996.

80. HOW DO WE THINK ABOUT OUR STUDENTS AND HOW DOES THAT AFFECT HOW WE TEACH? Dickinson College Summer Seminar, Carlisle, PA, June 20, 1996.

81. TEACHING WITH THE WEB: TODAY AND TOMORROW, Keynote address, *Teaching, Learning, and Technology,* Summer Institute for Faculty and Teaching Assistants, University of Deleware, June 3-7, 1996.

82. WHY IS IT SO HARD TO TEACH PHYSICS? Guy & Rebecca Forman Lecture in the Teaching of Physics, Vanderbilt University, March 29, 1996.

83. NEW APPROACHES TO LARGE INTRODUCTORY SCIENCE COURSES: ASSESSMENT AND EVALUATION, *Work and Learning: Creating New Connections*, 82nd Annual Meeting of the American Assn. of American Colleges and Universities, Washington DC, Jan. 11-13, 1996.

84. NETWORKS IN THE CLASSROOM: PRESENT & FUTURE POSSIBILITIES, *Teaching with Technology: Mining the Resources*, Third Annual Symposium, University of Maryland, College Park MD, April 3, 1995.

85. USING THE COMPUTER TO TEACH PHYSICS, South Africa Institute of Physics Annual Meeting, Mmabatho, Bophuthatswana, July 1994.

86. BUILDING CONCEPTS IN PHYSICS USING COMPUTER VISUALIZATION, *Laying the Foundation for the Information Super Highway*, HCIL 11th Annual Symposium and Open House, College Park MD, June 13, 1994.

87. WHY IS IT SO HARD TO TEACH PHYSICS? Symposium on Physics Teaching Marking the Retirement of Prof. Jeff Chalk, Physics Assn. of North Texas, SMU, Dallas TX, May 7, 1994.

88. USING THE COMPUTER TO HELP BUILD AND LINK CONCEPTS IN INTRODUCTORY PHYSICS, Annual joint meeting of the APS and AAPT, Washington DC, April 1994.

89. WHY IS IT SO HARD TO TEACH PHYSICS? Talk presented at the dedication of the American Physics Center, College Park MD, April 1994.

90. THE COMPREHENSIVE UNIFIED PHYSICS LEARNING ENVIRONMENT, *Higher Education and American Creativity,* Association of American Colleges, Washington DC, January, 1994.

91. TEACHING PHYSICS WITH THE COMPUTER, 4th Arab Conference on Physics Instruction, Cairo, Egypt, November 1993.

92. IS A COMPUTER OF ANY USE IN TEACHING PHYSICS? Canadian Association of Physics, Vancouver, Canada, June 1993.

93. WHAT GOOD IS A COMPUTER FOR PHYSICS EDUCATION? Australia-New Zealand Conference on Undergraduate Physics Education (OzCUPE1), Sydney Australia, April 1993.

94. OPEN PROGRAMMING TOOLS FOR COMBINING MODELING AND DATA-TAKING IN THE CUPLE ENVIRONMENT, Edward F. Redish, Jack M. Wilson, and Chad K. McDaniel, American Association of Physics Teachers Meeting, New Orleans, LA (January 6, 1993)

95. FROM HERE TO THE FUTURE: HOW THE COMPUTER IS CHANGING COLLEGE TEACHING, Edward F. Redish, Glover Memorial Lecture, Dickinson College, Carlisle PA, Nov. 20, 1991.

96. THE M.U.P.P.E.T. PROJECT, Edward F. Redish, Conference on Computers in Physics Instruction, Davidson College, Davidson, NC (October 2-5, 1991).

97. M.U.P.P.E.T. WORKSHOP, Edward F. Redish, Conference on Computers in Physics Instruction, Davidson College, Davidson, NC (October 2-5, 1991).

98. THE COMPREHENSIVE UNIFIED PHYSICS LEARNING ENVIRONMENT, Edward F. Redish and Jack M. Wilson, AAAS Annual Meeting, Washington DC (February 14-19, 1991).

99. THE DIFFICULTIES OF A LARGE SOFTWARE DESIGN PROJECT, Edward F. Redish, CUPS Project Workshop, George Mason University, Fairfax, VA (January 11, 1991).

100. THE MARYLAND UNIVERSITY PROJECT IN PHYSICS AND EDUCATIONAL TECHNOLOGY, Edward F. Redish, plenary talk and workshop, FIPSE Workshop on Education with the Computer, Southern Oregon College, Ashland OR(August 1990)

101. INTRODUCTION TO NUCLEAR PHYSICS, Edward F. Redish, Gordon Conference on Dynamics of Simple Systems, Andover, NH (August 12-17, 1990).

102. THE COMPREHENSIVE UNIFIED PHYSICS LEARNING ENVIRONMENT, Edward F. Redish and Jack M. Wilson, IBM Academic Computing Conference, Dallas, TX (June 22-24, 1990).

103. THE M.U.P.P.E.T. PROJECT: TEACHING PHYSICS WITH COMPUTERS, Edward F. Redish, Computadores no Ensino da Fisica e da Quimica, Coimbra, Portugal (February 22-24, 1990)

104. PUTTING IT ALL TOGETHER, Edward F. Redish, American Association of Physics Teachers Meeting, Atlanta, GA (January 22-25, 1990)

105. USING ORBITS: A WORKSHOP, Edward F. Redish, American Association of Physics Teachers Meeting, Atlanta, GA (January 20, 1990)

106. THE UNIFIED PHYSICS LEARNING ENVIRONMENT (UPLE) PROJECT, Edward F. Redish and Jack M. Wilson, IBM Forum for the Physical Sciences, Tucson, AZ (November 5-8, 1989).

107. THE MARYLAND UNIVERSITY PROJECT IN PHYSICS AND EDUCATIONAL TECHNOLOGY, Edward F. Redish, American Physical Society Meeting, Boston College (June 5-8, 1989).

108. ENABLING THE FUTURE: SHOULD THE COMPUTER CHANGE THE WAY COLLEGES TEACH? Edward F. Redish, Compu Campus VI, University of Turabo, Puerto Rico (March 9-10, 1989), Keynote Address

109. THE IMPACT OF MICROCOMPUTERS ON THE PHYSICS CURRICULUM, Edward F. Redish, IBM Academic Computing Conference, Dallas, TX (June 18-20, 1988).

110. EDUCATIONAL IMPROVEMENT VIA INNOVATION--HOW THE MICROCOMPUTER CAN CHANGE THE WAY WE TEACH, Edward F. Redish, EDUCOM '88: Campaign for Excellence: Education, Government, Industry, Washington, DC (Oct. 25-28, 1988), Keynote Address.

111. Is it time to change the way we teach physics? Edward F. Redish, 153rd Nat. Mtg. of the American Assoc. for the Advancement of Science, Chicago, IL (Feb. 1987)

112. How the microcomputer changes the way we teach physics, W. M. MacDonald, Edward F. Redish, and C. W. Misner, IBM ACIS University Conference, Boston, MA (June 27-30, 1987).

113. Reforming the nation's physics curriculum, C. W. Misner, W. M. MacDonald, Edward F. Redish, and J. M. Wilson) IBM Forum for the Physical Sciences, Tucson, AZ (Nov. 1-4, 1987).

114. Introduction and overview, Edward F. Redish, Gordon Research Conf. on Few-Body Problems in Chemistry and Physics, Wolfeboro N.H., Aug. 10-14, 1981.

115. New methods in nuclear reaction theory, Edward F. Redish, American Physical Society, Washington Meeting, April 23-26, 1979.

116. Connected kernel approach to the embedding of few-body models in n-body scattering theory, Edward F. Redish, Gordon Research Conf. on Few-Body Problems in Chemistry and Physics, Wolfeboro, N.H., Aug. 13-17, 1979.

117. New developments in reaction theory, Edward F. Redish, Gordon Research Conf. on Nuclear Structure Physics, Tilton, New Hampshire, July 10-14, 1978.

118. Generalized faddeev approach to many-body reactions, Edward F. Redish, Gordon Research Conf. on Few Body Problems in Chemistry and Physics, New Hampshire, August 15-19, 1977.

119. Applications of three-body methods to nuclear problems, Edward F. Redish, European Summer Meeting on Few Body Nuclear Physics, Uppsala, Sweden, June 17-19, 1977.

Contributed Papers Published in Proceedings of Scientific Meetings and Conferences

1. Negative energies: Why interdisciplinary physics requires multiple ontologies, B. W. Dreyfus, B. D. Geller, J. Gouvea, V. Sawtelle, C. Turpen, & E. F. Redish, to be published in *Proceedings of the Physics Education Research Conference, Portland, OR, July 2013.*

2. Students' Interdisciplinary Reasoning about 'High Energy Bonds' and ATP , B. W. Dreyfus, B. D. Geller, V. Sawtelle, J. Svoboda, C. Turpen, and E. F. Redish, in *Proceedings of the Physics Education Research Conference, Philadelphia, PA, July 2012, AIP Conf. Proc.* **1513** 122-125 (2013).

3. Students' Reasoning about interdisciplinarity, B. D. Geller, B. W. Dreyfus, V. Sawtelle, J. Svoboda, C. Turpen, and E. F. Redish, to be published in in *Proceedings of the Physics Education Research Conference, Philadelphia, PA, July 2012, AIP Conf. Proc.* **1513** 146-149 (2013).

4. Examining the Positioning of Ideas in the Disciplines, V. Sawtelle, T.-R. Sikorski, C. Turpen, E.F. Redish, in *Proceedings of the Physics Education Research Conference, Philadelphia, PA, July 2012, AIP Conf. Proc.* **1513** 366-369 (2013).

5. Student Views of Macroscopic and Microscopic Energy in Physics and Biology, B. W. Dreyfus, E. F. Redish, and J. Watkins, *Proceedings of the Physics Education Research Conference, Omaha, NE, August 2011, AIP Conf. Proc.* **1413**, 179-182 (2012).
6. Understanding how students use physical ideas in introductory biology courses, J. Watkins, K. Hall, E. F. Redish, and T. J. Cooke, in *Proceedings of the Physics Education Research Conference, Portland, OR, July 2010, AIP Conf. Proc.* **1289** (2010) 333-336

7. Making meaning with math in physics: a semantic analysis, E. F. Redish and A. Gupta, in *Physics Community and Cooperation, GIREP-EPEC & PHEC 2009 International Conf.*, *August 17-21, Leicester, UK, Vol. 1,* 244-260 (2010).

8. Using warrants as a window to epistemic framing, T. J. Bing and E. F. Redish, *Proceedings of the Physics Education Research Conference, Edmonton, AB, July 2008*, *AIP Conf. Proc.* **1064**, 71-74 (2008).

9. Towards a dynamic model of learners' ontologies in physics, Ayush Gupta, David Hammer, & Edward F. Redish, *Int. Conf. on the Learning Sciences*, Utrecht, the Netherlands (2008).

10. Coordination of mathematics and physical resources by physics graduate students, Ayush Gupta, Edward F. Redish, and David Hammer, in *Proceedings of the Physics Education Research Conference,* Greensboro, NC, 1-2 August, 2007, *AIP Conf. Proceedings* **951** (2007) 104-107.

11. The cognitive blending of mathematics and physics knowledge, Thomas J. Bing and Edward F. Redish, invited poster session, in Proceedings of the Physics Education Research Conference, Syracuse, NY, July 2006 AIP Conf. Proc. 883, 26-29 (2007).

12. Understanding students' poor performance on mathematical problem solving in physics, Jonathan Tuminaro and Edward F. Redish, *Proceedings of the Physics Education Research Conference,* Madison, WI, July 2004.

13. Quantum physics for engineers and applied physicists: applied homework assignments, ZuYuan Wang, Edward F. Redish, and Seth Rosenberg, in *Proceedings of the International Conference on Physics Education in Cultural Contexts*, Seoul, Korea, Aug. 2001.

14. What you can learn from a (good) multiple-choice exam? B. Lei and E. F. Redish *Proceedings of the Conference: Physics Teachers Beyond 2000*, held in Barcelona, Spain, Aug. 27 – Sept. 1, 2000, R. Pinto, editor.

15. The connection between the thomas and efimov effects, A. Delfino and Edward F. Redish, Few Body Problems in Physics XIII, Adelaide, SA, Australia (January 5-11, 1992).

16. Off-shell amplitudes at negative energies, A. Delfino and Edward F. Redish, Few Body Problems in Physics XIII, Adelaide, SA, Australia (January 5-11, 1992).

17. Quark model potential and the three-nucleon bound state, S. Takeuchi, T. Cheon, and E. F. Redish, *Few Body Problems in Physics*, Vancouver, BC, Canada, (July 2-8, 1989) p. 247c.

18. Theory of multistep direct reactions, Edward F. Redish and M. C. Birse, *Proceedings of the International Conference on Nuclear Physics, Volume I*, (Tipographia Compositori, Bologna, 1983) p.419.

19. Convergence of the distorted wave series, Edward F. Redish and D. S. MacMillan, *Few-Body Systems and Nuclear Forces: I* (Springer, Berlin, 1978). Graz, Austria, (August 24-30, 1978).

20. Hamiltonian formulation of n-body theories, Edward F. Redish and Wayne Polyzou, *Few-Body Systems and Nuclear Forces: I*, (Springer, Berlin, 1978). Graz, Austria (August 24-30, 1978).

21. The relationship of connected-kernel theory to the Schroedinger equation and implications for reaction models, Edward F. Redish, P. C. Tandy, Gy. Bencze, and M. L'Huillier, *Symposium on Nuclear Reaction Models*, Balatonfured, Hungary (June 27-July 1, 1977).

22. Three-body approach to the nucleon-nucleus optical potential, Edward F. Redish, P. C. Tandy and D. Bollé, *Few-Body Dynamics*, Mitra, Slaus, Bhasin and Gupta, eds. (North-Holland, Amsterdam, 1976), p. 405.

23. A new cluster model of nuclear reactions, Edward F. Redish and P. C. Tandy, *Proc. of the IUPAP Conference on Clustering Phenomena in Nuclei*, College Park, MD (April 1975).

24. Off-shell optical potential ambiguities: a three-body model, Edward F. Redish and S. K. Young, *Few Body Problems in Nuclear and Particle Physics*, R. J. Slobodrian, B. Cujec and K. Ramavataram, eds. (Laval U. Press, Quebec, 1975), p. 375. .

25. The accuracy of the distorted wave impulse approximation (dwia) for breakup reactions in a three-body model, Edward F. Redish and S. K. Young, *Proceedings of the International Conference on Nuclear Physics,*Munich, Aug. 1973, p. 424.

26. Wave function models of the two-nucleon t-matrix off the energy shell, H. S. Picker, Edward F. Redish, and G. J. Stephenson, Jr., in *Few Particle Problems in the Nuclear Interaction,*I. Slaus, et. al., eds., (North Holland, Amsterdam, 1972), p. 82.

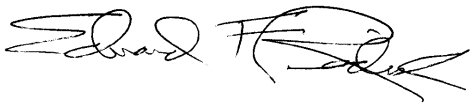
Unpublished Technical Reports

1. Evaluation of the workshop physics dissemination project, Jeffery M. Saul and Edward F. Redish, U. of Md. preprint, April, 1998.

2. Student avoidance of vectors in an introductory physics course, Gilli Shama and Edward F. Redish, paper presented at the Research Conference in Collegiate Mathematics Education, Central Michigan University, Mt. Pleasant, MI, September 4-7, 1997; University of Maryland preprint, August, 1997.

3. Lectures in the quantum three-body problem, Edward F. Redish, U. of Md. Technical Report TR 77-060, Fall 1976.

Updated March 4, 2014



Edward F. Redish