

Publications

Christopher A. Fields

1978:

Kitching, J. E., P. A. Batay-Csorba, C. A. Fields, R. A. Ristinen, and B. L. Smith (1978). High-spin states in $^{88,87,86}\text{Zr}$. *Nuclear Physics A302*: 159-172.

1979:

Fields, C. A., J. J. Kraushaar, R. A. Ristinen, and L. E. Samuelson (1979). High-spin states above 3.5 MeV in ^{91}Nb . *Nuclear Physics A326*: 55-64.

Fields, C. A. and L. E. Samuelson (1979). High-spin states of ^{89}Y studied with the $^{87}\text{Rb}(\alpha, 2n\gamma)$ reaction. *Physical Review C20*: 2442-2445.

1980:

Fields, C. A., F. W. N. de Boer, R. A. Ristinen, L. E. Samuelson and P. A. Smith (1980). A method for determining the neutron multiplicity for gamma rays from (particle, xny) reactions. *Nuclear Instruments and Methods* 169: 173-177.

Fields, C. A., F. W. N. de Boer, J. J. Kraushaar, W. W. Pratt, R. A. Ristinen and L. E. Samuelson (1980). Gamma-ray spectroscopy of ^{87}Y . *Zeitschrift für Physik A295*: 365-376.

de Boer, F. W. N., C. A. Fields, G. Marro, E. Sugarbaker, J. Konijn, H. Verheul and P. M. Walker (1980). Aligned octupole bands in deformed N=90 and N=92 nuclei. *Physics Letters* 96B: 39-42.

de Boer, F. W. N., J. J. van Ruijven, A. W. B. Kalshoven, H. Verheul, R. Vis, E. Sugarbaker, C. Fields and C. S. Zaidins (1980). The tetra-neutron revisited. *Nuclear Physics A350*: 149-156.

1981:

Konijn, J., J. B. R. Berkhout, W. H. A. Hesselink, H. Verheul, P. M. Walker, F. W. N. de Boer, C. A. Fields and E. Sugarbaker (1981). Intrinsic structure effects in the aligned octupole bands of ^{152}Sm . *Physics Letters* 99B: 449-452.

Fields, C. A., F. W. N. de Boer, J. J. Kraushaar, R. A. Ristinen, L. E. Samuelson and E. Sugarbaker (1981). High-spin states in ^{90}Nb . *Nuclear Physics A363*: 311-321.

Fields, C. A., F. W. N. de Boer, E. Sugarbaker and P. M. Walker (1981). A study of $^{82, 84, 86}\text{Sr}$ by $(\alpha, 2n\gamma)$ reactions. *Nuclear Physics A363*: 352-364.

Fields, C. A., F. W. N. de Boer, D. E. Prull, R. A. Ristinen, L. E. Samuelson, P. A. Smith and E.

Sugarbaker (1981). Decay pathways and entry state population in (α , xn γ) and (^3He , xn γ) reactions on ^{150}Nd . *Nuclear Physics A366*: 38-60.

Walker, P. M., F. W. N. de Boer and C. A. Fields (1981). Band crossing in ^{162}Dy : Characterization of negative parity yrast and yrare sequences. *Physics Letters 104B*: 19-22.

Fields, C. A., F. W. N. de Boer, R. A. Ristinen, P. A. Smith and E. Sugarbaker (1981). Fast neutron emission in (α , 2n γ) reactions: A neutron skin effect? *Physics Letters 106B*: 453-456.

Becchetti, F. D., C. A. Fields, R. S. Raymond, H. Bhang and D. Overway (1981). The ghost anomaly in ^{11}Be studied with the $^{10}\text{Be}(p, d)$ reaction at $E_p = 14.3$ MeV. *Physical Review C24*: 2401-2408.

1982:

Konijn, J., J. B. R. Berkhout, W. H. A. Hesselink, J. J. van Ruijven, P. van Nes, H. Verheul, F. W. N. de Boer, C. A. Fields, E. Sugarbaker and P. M. Walker (1982). Rotational bands in ^{152}Sm observed following the (α , 2n γ) reaction. *Nuclear Physics A373*: 397-433.

Fields, C. A., F. W. N. de Boer, R. A. Ristinen, P. A. Smith and E. Sugarbaker (1982). A systematic investigation of the (α , 2n γ) reaction on medium-heavy nuclei. *Nuclear Physics A377*: 217-236.

Hicks, K. H., T. E. Ward, J. Wiggins, C. A. Fields and F. W. N. de Boer (1982). Decays of $^{194,195,196}\text{Pb}$. *Physical Review C25*: 2710-2721.

Diana, B. J., F. W. N. de Boer and C. A. Fields (1982). Gamma-ray spectroscopy of ^{89}Nb . *Zeitschrift für Physik A306*: 171-175.

Fields, C. A., K. H. Hicks, R. A. Ristinen, F. W. N. de Boer, L. K. Peker and P. M. Walker (1982). Interacting negative-parity bands in ^{164}Er . *Physical Review C26*: 290-293.

Fields, C. A., F. W. N. de Boer, R. A. Ristinen and E. Sugarbaker (1982). Breakdown of the thermal moving-source description of fast neutron emission in (α , xn γ) and (^3He , xn γ) reactions. *Physics Letters 114B*: 81-85.

Becchetti, F. D., K. H. Hicks and C. A. Fields (1982). Thin-film cryogenic accelerator targets. *Nuclear Instruments and Methods 203*: 93-95.

Fields, C. A., R. A. Ristinen, L. E. Samuelson and P. A. Smith (1982). A study of the $^{90}\text{Zr}(^3\text{He}, t)$ reaction at 43.4 MeV. *Nuclear Physics A385*: 449-460.

de Boer, F. W. N., C. A. Fields, L. E. Samuelson and J. Sau (1982). The level structure of ^{90}Mo . *Nuclear Physics A388*: 303-316.

Fields, C. A., K. H. Hicks, R. A. Ristinen, F. W. N. de Boer, P. M. Walker, J. Borggreen and L. K. Peker (1982). A study of the rotational sidebands of ^{162}Dy . *Nuclear Physics A389*: 218-246.

Fields, C. A., K. H. Hicks, R. A. Ristinen, F. W. N. de Boer, L. K. Peker and P. M. Walker (1982). Band

crossings at low rotational frequency in ^{164}Er . In: K. Ogawa and T. Tanabe (Eds.) *Dynamics of Nuclear Collective Motion*. University of Tokyo. pp. 122-127.

Emigh, R. A., C. A. Fields, M. L. Gartner, L. E. Samuelson and P. A. Smith (1982). A study of the $^{121,123}\text{Sb}(p, d)$ reactions. *Zeitschrift für Physik A308*: 165-171.

Emigh, R. A., C. A. Fields, M. L. Gartner, L. E. Samuelson and P. A. Smith (1982). A study of the $^{120}\text{Sn}(p, n\gamma)$ reaction. *Zeitschrift für Physik A308*: 173-179.

1983:

Fields, C. A., F. W. N. de Boer and J. Sau (1983). A study of the $^{84}\text{Kr}(\alpha, 2n\gamma)^{86}\text{Sr}$ reaction. *Nuclear Physics A398*: 512-524.

Fields, C. A., J. J. Kraushaar, R. A. Ristinen and E. Sugarbaker (1983). A study of the $^{88}\text{Sr}(^3\text{He}, t)^{88}\text{Y}$ reaction. *Nuclear Physics A398*: 434-444.

Fields, C. A., F. W. N. de Boer and B. J. Diana (1983). High-spin states in ^{92}Tc . *Nuclear Physics A401*: 117-130.

Fields, C. A. and F. W. N. de Boer (1983). The 8^+ levels of ^{86}Zr revisited. *Zeitschrift für Physik A311*: 127-130.

Fields, C. A., R. J. Peterson, R. S. Raymond, J. L. Ullman, R. J. de Meijer, E. H. L. Aarts and M. B. Greenfield (1983). Deuteron projectile breakup on ^{28}Si at $E_d = 17.85$ MeV. In: H. Ogata, T. Kammamuri, and I. Katayama (Eds.) *Light Ion Reaction Mechanism*. University of Osaka. pp. 621-625.

Becchetti, F. D., K. H. Hicks, C. A. Fields, R. J. Peterson, R. S. Raymond, R. A. Ristinen, J. L. Ullman and C. S. Zaidins (1983). ^3He -induced fission of nuclei $159 < A < 232$. *Physical Review C28*: 1217-1223.

Fields, C. A., K. H. Hicks, M. A. Rumore and R. J. Peterson (1983). Interaction between the S band and the β - and γ -vibrational bands in ^{166}Yb . *Physics Letters 130B*: 157-160.

Peterson, R. J., C. A. Fields, R. S. Raymond, J. R. Thieke and J. L. Ullman (1983). A study of the $^{28}\text{Si}(d, p)^{29}\text{Si}$ reaction. *Nuclear Physics A408*: 221-238.

Fields, C. (1983). Compartmental analysis as a formal language for ecological realist psychology. *Nature and System 5*: 195-209.

Fields, C. (1983). Cognitive penetration pathways in natural language understanders. *Cognition and Brain Theory 6*: 449-461.

1984:

Fields, C. A., K. H. Hicks, R. A. Ristinen, F. W. N. de Boer, L. K. Peker, R. J. Peterson and P. M. Walker (1984). Rotational sidebands in ^{164}Er . *Nuclear Physics A422*: 215-236.

Fields, C. A., R. A. Ristinen and E. Sugarbaker (1984). The inclusive 24 to 43 MeV (^3He , $x\gamma$) reaction on Pd and Sn targets. *Nuclear Physics A422*: 296-306.

Rumore, M. A., S. A. Dickey, C. A. Fields and J. J. Kraushaar (1984). The $^{93}\text{Nb}(p, d)^{92}\text{Nb}$ reaction at 26.3 MeV. *Nuclear Physics A423*: 350-364.

Fields, C. A., F. W. N. de Boer, R. A. Ristinen, P. A. Smith and E. Sugarbaker (1984). The 33 and 43 MeV (^3He , $x\gamma$) exclusive reactions on targets from Zr to Pb. *Nuclear Physics A429*: 259-268.

Fields, C. A., K. H. Hicks and R. J. Peterson (1984). Bandcrossings at low rotational frequency in ^{166}Yb . *Nuclear Physics A431*: 473-485.

Fields, C. (1984). Rational procedures in goal-generating decision systems. *Cognition and Brain Theory* 7: 359-374.

Fields, C. (1984). Double on Searle's Chinese Room. *Nature and System* 6: 51-54.

1985:

Fields, C. A., K. H. Hicks and R. J. Peterson (1985). Rotational sidebands in ^{166}Er . *Nuclear Physics A440*: 301-310.

Rumore, M. A., C. A. Fields and J. J. Kraushaar (1985). Low-lying levels of ^{92}Nb from the $^{92}\text{Zr}(^3\text{He}, t)$ and $^{92}\text{Zr}(^3\text{He}, p2n\gamma)$ reactions. *Nuclear Physics A455*: 408-417.

1987:

Riezebos, H. J., M. J. A. de Voigt, C. A. Fields, X. W. Cheng, R. J. Peterson, G. B. Hagemann and A. Stolk (1987). Rotational sidebands in ^{160}Dy . *Nuclear Physics A465*: 1-24.

Fields, C. (1987). The computer as tool: A critique of a common view of the role of intelligent artifacts in society. *Social Epistemology* 1: 5-25.

Fields, C. and E. Dietrich (1987). Intentionality is a red herring. *Behavioral and Brain Sciences* 10: 756-757.

1988:

Fields, C. (1988). Background knowledge and natural language understanding. In: H. Otto and J. Tuedio (Eds.) *Perspectives on Mind*. Dordrecht: Reidel. pp. 261-273.

Fields, C., M. Coombs, E. Dietrich and R. Hartley (1988). Incorporating dynamic control into the model generative reasoning system. *Proceedings of the European Conference on Artificial Intelligence*. London: Pitman. pp. 439-441.

Fields, C., M. Coombs and R. Hartley (1988). MGR: An architecture for problem solving in

unstructured task environments. In: Z. Ras and L. Saitta (Eds.) *Methodologies for Intelligent Systems*, 3. Amsterdam: Elsevier. pp. 40-49.

Dietrich, E. and C. Fields (1988). Some assumptions underlying Smolensky's treatment of connectionism. *Behavioral and Brain Sciences* 11: 29-31.

Bektesh, S., C. Fields and D. Hirsh (1988). DNA transformation in *Caenorhabditis elegans*. In: G. Malacinski (Ed.), *Developmental Genetics of Higher Organisms*. New York: Macmillan. pp. 221-236.

Fields, C. (1988). Domain organization and intron positions in *Caenorhabditis elegans* collagen genes: The 54 bp module hypothesis revisited. *Journal of Molecular Evolution* 28: 55-63.

1989:

Fields, C. (1989). Affordance perception and the Y-magnocellular pathway. *Behavioral and Brain Sciences* 12: 403-404.

Fields, C., T. Eskridge, R. Hartley and M. Coombs (1989). Experimental analysis of dynamic control strategies for the MGR architecture: Simulation environment and initial results. *Proceedings of the Seventh Conference of the Society for the Study of Artificial Intelligence and the Simulation of Behaviour*. London: Pitman. pp. 165-173.

Fields, C. (1989). Consequences of nonclassical measurement for the algorithmic description of continuous dynamical systems. *Journal of Experimental and Theoretical Artificial Intelligence* 1: 171-178.

Eskridge, T. and C. Fields (1989). Representing strategic knowledge in continuous, dynamic control functions. In: Z. Ras (Ed.) *Methodologies for Intelligent Systems*, 4. New York: Elsevier. pp. 191-198.

Fields, C. (1989). Explaining classical conditioning: Phenomenological unity conceals mechanistic diversity. *Behavioral and Brain Sciences* 12: 141-142.

Cox, G., C. Fields, J. Kramer, B. Rosenzweig and D. Hirsh (1989). Sequence comparisons of developmentally regulated collagen genes of *Caenorhabditis elegans*. *Gene* 76: 331-343.

1990:

Fields, C. (1990). Fast synaptic modulation provides a ubiquitous mechanism to support an instruction-data distinction in biological neural networks. *Proceedings of the International Joint Conference on Neural Networks, Vol. I*. Hillsdale, NJ: Erlbaum. pp. 70-73.

Fields, C. (1990). Information content of *Caenorhabditis elegans* splice site sequences varies with intron length. *Nucleic Acids Research* 18: 1509-1512.

Fields, C. and C. Soderlund (1990). **gm**: A practical tool for automated DNA sequence analysis. *Computer Applications in the Biosciences* 6: 263-270.

1991:

Fields, C., M. DeYong and R. Findley (1991). Computational capabilities of biologically-realistic analog processing elements. In: J. Delgado-Frias and W. Moore (Eds) *VLSI for Artificial Intelligence and Neural Networks*. New York: Plenum. pp. 175-184.

Fields, C. and E. Dietrich (1991). Engineering artificial intelligence applications in unstructured task environments: Some methodological issues. In: D. Partridge (Ed.) *Artificial Intelligence and Software Engineering*. Norwood, NJ: Ablex. pp. 369-381.

Fields, C., H. Pfeiffer and T. Eskridge (1991). Knowledge representation and control in **gm1**, an automated DNA sequence analysis system based on the MGR architecture. *International Journal of Man- Machine Studies* 34: 549-573.

Dietrich, E. and C. Fields (1991). The wanton module and the frame problem. In: L. Burkholder (Ed.) *Philosophy and the Computer*. Boulder: Westview. pp. 92-104.

1992:

Fields, C., J. Newberry, H. Pfeiffer, C. Soderlund, S. Kirby and G. McWilliams (1992). MERCURY: A heterogeneous system for spatial extrapolation of mesoscale meteorological data. *International Journal of Man-Machine Studies* 36: 309-326.

DeYong, M., R. Findley and C. Fields (1992). The design, fabrication, and testing of a new VLSI hybrid analog-digital neural processing element. *IEEE Transactions on Neural Networks* 3: 363-374.

DeYong, M. and C. Fields (1992). Applications of hybrid analog-digital neural networks in signal processing: Simple circuits for frequency and phase detection and shifting. *Proceedings of the International Conference on Circuits and Systems*. Los Alamitos, CA: IEEE Press. pp. 2212-2215.

DeYong, M., T. Eskridge and C. Fields (1992). Temporal signal processing with high-speed hybrid analog-digital neural networks. *Analog Integrated Circuits and Signal Processing* 2: 367-388.

Venter, J. C., M. Adams, A. Martin-Gallardo, W. R. McCombie and C. Fields (1992). Genome sequence analysis: Scientific objectives and practical strategies. *Trends in Biotechnology* 10: 8-11.

Fields, C. (1992). Data exchange and inter-database communication in genome projects. *Trends in Biotechnology* 10: 58-61.

Adams, M., M. Dubnick, A. Kerlavage, R. Moreno, J. Kelley, T. Utterback, J. Nagle, C. Fields and J. C. Venter (1992). Sequence identification of 2375 human brain genes. *Nature* 355: 632-634.

Fields, C., D. Grady and R. Moyzis (1992). The human THE-LTR(O) and *Mst* II interspersed repeats are subfamilies of a single widely-distributed, highly-variable repeat family. *Genomics* 13: 431-436.

White, O., C. Soderlund, P. Shanmugam and C. Fields (1992). Information contents and dinucleotide compositions of plant intron sequences vary with evolutionary origin. *Plant Molecular Biology* 19: 1057- 1064.

Soderlund, C., P. Shanmugam, O. White, and C. Fields (1992). **gm**: A tool for exploratory analysis of DNA sequences. In: V. Milutinovic and B. Shriver (Eds), *Proceedings of the 25th Hawaii International*

Conference on System Sciences. Los Alamitos, CA: IEEE Computer Society Press. pp. 653-662.

Martin-Gallardo, A., W. R. McCombie, J. Gocayne, M. FitzGerald, S. Wallace, B. M. Lee, J. Lamerdin, S. Trapp, J. Kelley, L.-I. Liu, M. Dubnick, L. Dow, A. R. Kerlavage, P. De Jong, A. Carrano, C. Fields and J. C. Venter (1992). Automated DNA sequencing and analysis of 106 kilobases from human chromosome 19q13.3. *Nature Genetics* 1: 34-39.

McCombie, W. R., M. D. Adams, J. M. Kelley, M. G. FitzGerald, T. R. Utterback, M. Kahn, M. Dubnick, A. R. Kerlavage, J. C. Venter and C. Fields (1992). *C. elegans* expressed sequence tags identify gene families and disease gene homologues. *Nature Genetics* 1: 124-131.

McCombie, W. R., A. Martin-Gallardo, J. Gocayne, M. FitzGerald, M. Dubnick, J. Kelley, L. Castilla, L.-I. Liu, S. Wallace, S. Trapp, D. Tagle, L. Whaley, S. Cheng, J. Gusella, A.-M. Frischauf, A. Poustka, H. Lehrach, F. Collins, A. R. Kerlavage, C. Fields and J. C. Venter (1992). Expressed genes, interspersed repeats, and polymorphisms in cosmids sequenced from 4p16.3. *Nature Genetics* 1: 348-353.

Mount, S., C. Burks, G. Hertz, G. Stormo, O. White and C. Fields (1992). Splicing signals in *Drosophila*: Intron size, information content, and consensus sequences. *Nucleic Acids Research* 20: 4255-4262.

1993:

DeYong, M. and C. Fields (1993). High-speed silicon neurons for phase and frequency detection and complex pattern generation. In: M. Zaghoul, J. Meador and R. Newcomb (Eds.) *Silicon Implementation of Pulse Coded Neural Networks*. New York: Kluwer. pp. 65 – 77.

Adams, M., A. Kerlavage, M. Dubnick, R. Moreno, C. Fields and J. C. Venter (1993). Analysis of expressed sequence tags from human brain cDNAs. In: H. Lim, J. Fickett, C. Cantor and R. Robbins (Eds) *Proceedings of the Second International Conference on Bioinformatics, Supercomputing, and Complex Genome Analysis*. New York: World Scientific. pp. 113-120.

Fields, C., M. Adams, A. Kerlavage, M. Dubnick, O. White, A. Martin-Gallardo, W. R. McCombie and J. C. Venter (1993). Identification of genes in genomic and EST sequences. In: H. Lim, J. Fickett, C. Cantor and R. Robbins (Eds.) *Proceedings of the Second International Conference on Bioinformatics, Supercomputing, and Complex Genome Analysis*. New York: World Scientific. pp. 429-434.

Adams, M. D., A. R. Kerlavage, C. Fields and J. C. Venter (1993). 3400 new expressed sequence tags identify diversity of transcripts in human brain. *Nature Genetics* 4: 256-267.

Adams, M. D., M. B. Soares, A. R. Kerlavage, C. Fields and J. C. Venter (1993). Rapid cDNA sequencing (Expressed Sequence Tags) from a directionally cloned human infant brain cDNA library. *Nature Genetics* 4: 373-380.

White, O., T. Dunning, G. Sutton, M. Adams, J. C. Venter and C. Fields (1993). A quality control algorithm for DNA sequencing projects. *Nucleic Acids Research* 21: 3829-3838.

Kerlavage, A., M. Adams, J. Kelley, M. Dubnick, J. Powell, P. Shanmugam, J. C. Venter and C. Fields (1993). Analysis and management of data from high-throughput expressed sequence tag projects.

Proceedings of the 26th Hawaii International Conference on System Sciences. Los Alamitos, CA: IEEE Computer Society Press. pp. 585-594.

Schein, J., M. Marra, G. Benian, C. Fields and D. Baillie (1993). The use of deficiencies to determine essential gene content in the *let-56 - unc-22* region of *Caenorhabditis elegans*. *Genome* 36: 1148-1156.

Fields, C. (1993). Life and computers (review of L. Hunter, *Artificial Intelligence and Molecular Biology*, MIT, 1993). *Science* 262: 1591-1592.

1994:

DeYong, M. R., R. L. Findley, T. C. Eskridge and C. A. Fields (1994). Asynchronous temporal neural processing element. U. S. Patent # 5355435.

Fields, C. (1994). Real machines and virtual intentionality. In: E. Dietrich (Ed.) *Thinking Machines and Virtual Persons*. Orlando, FL: Academic Press. pp. 71-90.

Adams, M. D., A. Kerlavage, J. Kelley, J. Gocayne, C. Fields, C. Fraser and J. C. Venter (1994). A model for high-throughput automated DNA sequencing and analysis core facilities. *Nature* 368 (6470): 474-475.

Fields, C. and M. D. Adams (1994). Expressed sequence tags identify a human isolog of the SUI1 translation initiation factor. *Biochemical and Biophysical Research Communications* 198: 288-291.

Fields, C., M. D. Adams, O. White and J. C. Venter (1994). How many genes in the human genome? *Nature Genetics* 7: 345 – 346.

Waterman, M., E. Uberbacher, S. Spengler, F. R. Smith, T. Slezak, R. Robbins, T. Marr, D. Kingsbury, P. Gilna, C. Fields, K. Fasman, D. Davison, M. Cinkosky, P. Cartwright, E. Branscom and H. Berman (1994) Genome informatics I: Community databases. *Journal of Computational Biology* 1: 173 – 190.

Fields, C. (1994). Analysis of gene expression by tissue and developmental stage. *Current Opinion in Biotechnology* 5: 595 – 598.

Blake, J., C. Bult, M. Donoghue, J. Humphries and C. Fields (1994). Interoperability of biological databases: A meeting report. *Systematic Biology* 43: 585 – 589.

Rappaport, B., J. Gatewood, C. Fields and D. Doggett (1994). Integrating repeat identification with thermal calculations. In: M. Adams, C. Fields, and J. C. Venter (Eds), *Automated DNA Sequencing and Analysis*. London: Academic Press. pp. 289 – 293.

Fields, C. (1994). Integrating computational and experimental methods for gene discovery. In: M. Adams, C. Fields, and J. C. Venter (Eds), *Automated DNA Sequencing and Analysis*. London: Academic Press. pp. 321 – 325.

Adams, M. D., C. Fields and J. C. Venter (Eds) *Automated DNA Sequencing and Analysis*. San Diego: Academic Press (1994).

Fields, C. (1994). Genome informatics (review of D. Smith, *Biocomputing*, Academic, 1993). *Science*

264: 854.

1995:

Fields, C. (1995). Observables, measurements, and virtual machines. *Journal of Experimental and Theoretical Artificial Intelligence* 7: 271 – 274.

Keen, G., J. Burton, D. Crowley, E. Dickinson, A. Espinosa-Lujan, E. Franks, C. Harger, M. Manning, S. March, M. McLeod, J. O'Neill, A. Power, M. Pumilia, R. Reinert, D. Rider, J. Rohrlich, J. Schwertferger, L. Smyth, N. Thayer, C. Troup and C. Fields (1995). The genome sequence database (GSDB): Meeting the challenge of genomic sequencing. *Nucleic Acids Research* 24: 13 – 16.

Adams, M. D., A. Kerlavage, R. Fleischmann, R. Fuldner, C. Bult, N. Lee, E. Kirkness, K. Weinstock, J. Gocayne, O. White, G. Sutton, J. Blake, R. Brandon, M.-W. Chiu, R. Clayton, R. Cline, M. Cotton, J. Earle-Hughes, L. Fine, L. FitzGerald, W. FitzHugh, J. Fritchman, N. Geohagen, A. Glodek, C. Gnehm, M. Hanna, E. Hedblom, P. Hinkle, Jr., J. Kelley, K. Klimak, J. Kelley, L.-I. Liu, S. Marmaros, J. Merrick, R. Moreno-Palanques, L. McDonald, D. Nguyen, S. Pellegrino, C. Phillips, S. Ryder, J. Scott, D. Saudek, R. Shirley, K. Small, T. Sriggs, T. Utterback, J. Weldman, Y. Li, R. Barthlow, D. Bednarik, L. Cao, M. Cepeda, T. Coleman, E.-J. Collins, D. Dimke, P. Feng, A. Ferrie, C. Fischer, G. Hastings, W.-W. He, J.-S. Hu, K. Huddleston, J. Greene, J. Gruber, P. Hudson, A. Kim, D. Kozak, C. Kunsch, H. Ji, H. Li, P. Meissner, H. Olsen, L. Raymond, Y.-F. Wei, J. Wing, C. Xu, G.-L. Yu, S. Ruben, P. Dillon, M. Fannon, C. Rosen, W. Haseltine, C. Fields, C. Fraser and J. C. Venter (1995). Initial assessment of human gene diversity and expression patterns based upon 83 million nucleotides of cDNA sequence. *Nature* 377 (Suppl.): 3 – 174.

Clayton, R. C., G. Sutton, P. S. Hinkle, Jr., C. Bult and C. Fields (1995). Intraspecific variation in small- subunit rRNA sequences in GenBank: Why single sequences may not adequately represent prokaryotic taxa. *International Journal of Systematic Bacteriology* 45: 595 – 599.

Fleischmann, R. D., M. Adams, O. White, R. Clayton, E. Kirkness, A. Kerlavage, C. Bult, J.-F. Tomb, B. Dougherty, J. Merrick, K. McKenney, G. Sutton, W. FitzHugh, C. Fields, J. Gocayne, J. Scott, R. Shirley, L.-I. Liu, A. Glodek, J. Kelley, J. Weidman, C. Phillips, T. Spriggs, E. Hedblom, M. Cotton, T. Utterback, M. Hanna, D. Nguyen, D. Saudek, R. Brandon, L. Fine, J. Fritchman, J. Furhmann, N. Geohagen, C. Gnehm, L. McDonald, K. Small, C. Fraser, H. Smith and J. C. Venter (1995). Whole genome random shotgun sequencing and assembly of *Haemophilus influenzae* Rd. *Science* 269: 496 – 508.

1996:

Fields, C. (1996). Measurement and computational description. In: P. Millican and A. Clark (Eds.) *Machines and Thought*. Oxford: Oxford University Press. pp. 165 – 177.

Dietrich, E. and C. Fields (1996). The role of the frame problem in Fodor's modularity thesis: A case study of rationalist cognitive science. In: K. M. Ford and Z. W. Pylyshyn (Eds.) *The Robot's Dilemma Revisited*. Norwood, NJ: Ablex. pp. 9 – 24.

Bult, C. and C. Fields (1996). Biological databases on the internet. In: B. Sobral (Ed.) *The Impact of Plant Molecular Genetics*. Boston: Birkhauser. pp. 221 – 238.

Fields, C. (1996) Informatics for ubiquitous sequencing. *Trends in Biotechnology* 14: 286 – 289.

1997:

Harger, C., M. Skupski, E. Allen, C. Clark, D. Crowley, E. Dickenson, D. Easley, A. Espinosa-Lujan, A. Farmer, C. Fields, L. Flores, L. Harris, G. Keen, M. Manning, M. McLeod, J. O'Neill, M. Pumillia, R. Reinert, D. Rider, J. Rohrlich, Y. Romero, J. Schwertferger, G. Seluja, A. Siepel, G. Singh, L. Smyth, D. Stamper, J. Stein, R. Suggs, R. Takkallapalli, N. Thayer, G. Thompson, C. Walsh, F. Wedgeworth III and P. Schad (1997). The Genome Sequence DataBase version 1.0: From low-pass sequences to complete genomes. *Nucleic Acids Research* 25: 18-23.

Bult, C. J., J. Blake, M. D. Adams, O. White, G. Sutton, R. Clayton, A. R. Kerlavage, C. Fields and J. C. Venter (1997). The impact of rapid gene discovery technology on studies of evolution and biodiversity. In M. L. Reaka-Kudla, D. E. Wilson and E. O. Wilson (Eds.) *Biodiversity II*. Washington, DC: Joseph Henry Press. pp. 289 – 299.

Fields, C. (1997). Integrating data acquisition, analysis, and management. In T. J. Beugelsdijk (Ed.) *Automated Technologies for Genome Characterization*. New York: John Wiley. pp. 279 – 294.

2002:

Fields, C. (2002). Why do we talk to ourselves? *Journal of Experimental and Theoretical Artificial Intelligence* 14: 255 – 272.

2004:

Fields, C. (2004). The role of aesthetics in problem solving: Some observations and a manifesto. *Journal of Experimental and Theoretical Artificial Intelligence* 16: 41 – 55.

Fields, C. (2004). Equinox. *Las Cruces Poets and Writers* 1: 14.

Fields, C. (2004). Organ Mountains: Experience of air (acrylic on canvas and hardboard). *The Terrain* (Juried). Las Cruces Museum of Fine Art, June – July.

2005:

Fields, C. (2005). Perception series (triptych; acrylic on canvas) and River series (triptych; acrylic on canvas). *2005 Regional Invitational*. New Mexico State University Art Gallery, June – July.

2007:

Fields, C. and A. Tinsley, *Sleeping With the Toucans: 100 Great Places to Stay in Costa Rica*. Santa Fe, NM: HayFields Publications (2007).

2010:

Fields, C. (2010). Quantum Darwinism requires an extra-theoretical assumption of encoding redundancy. *International Journal of Theoretical Physics* 49: 2523-2527.

2011:

Fields, C. (2011). Implementation of structure mapping inference by event-file binding and action planning: A model of tool improvisation analogies. *Psychological Research* 75: 129-142.

Fields, C. (2011). From “Oh, OK” to “Ah, yes” to “Aha!”: Hyper-systemizing and the rewards of insight. *Personality and Individual Differences* 50: 1159-1167.

Fields, C. (2011). Trajectory recognition as the basis for object individuation: A functional model of object file instantiation and object token encoding. *Frontiers in Psychology – Perception Science* 2: 49 [12 pages].

de Boer, F. W. N. and C. Fields (2011). A re-evaluation of evidence for light neutral bosons in nuclear emulsions. *International Journal of Modern Physics E* 20: 1787-1803.

Fields, C. (2011). Classical system boundaries cannot be determined within quantum Darwinism. *Physics Essays* 24: 518-522.

2012:

Fields, C. (2012). What humans can't do: A review of Derek Partridge, *The Seductive Computer*. *Journal of Experimental and Theoretical Artificial Intelligence* 24: 267-270.

Fields, C. (2012). Motion as manipulation: Implementation of motion and force analogies by event-file binding and action planning. *Cognitive Processing* 13: 231-241.

Fields, C. (2012). If physics is an information science, what is an observer? *Information* 3: 92-123.

Fields, C. (2012). Autonomy all the way down: Systems and dynamics in quantum Bayesianism. *Physics and Philosophy* 2012: 018 [27 pages].

Fields, C. (2012). The very same thing: Extending the object token concept to incorporate causal constraints on individual identity. *Advances in Cognitive Psychology* 8:234-247.

Fields, C. (2012). Do autism spectrum disorders involve a generalized object categorization and identification dysfunction? *Medical Hypotheses* 79: 344-351.

Fields, C. (2012). A model-theoretic interpretation of environment-induced superselection. *International Journal of General Systems* 41: 847-859.

Fields, C. (2012). Physics needs a physical theory of observation. *Prespacetime Journal* 3: 1120-1129.

Fields, C. (2012). Implementation of classical communication in a quantum world. *Information* 3: 809-831.

2013:

Fields, C. (2013). How humans solve the frame problem. *Journal of Experimental and Theoretical Artificial Intelligence* (in press).

Fields, C. (2013). Bell's theorem from Moore's theorem. *International Journal of General Systems* (in press).

Fields, C. (2013). Consistent quantum mechanics admits no mereotopology. *Axiomathes* (in press).