

## PUBLICATIONS

### a) Books (edited with introductions):

Language, Mind and Logic, C.U.P., 1986.

Spacetime, International Research Library of Philosophy, Dartmouth Publishing, 1996 (with G.Belot & M.Hogarth).

From Physics to Philosophy, C.U.P., 1999 (with C. Pagonis).

The Arguments of Time, British Academy and O.U.P., 1999.

Non-Locality and Modality, Kluwer Academic, 2002 (with T.Placek).

Quantum Entanglements, Selected Papers of Rob Clifton, O.U.P., 2004 (with H.Halvorson)

The Handbook of Philosophy of Physics, North Holland, 2006, two volumes (with John Earman)

### b) Research Articles:

'Measurement, Unitarity and Laws', in Space, Time and Causality, ed. R. Swinburne, Reidel, 1982, 135-147.

'Dummett on Temporal Operators', The Philosophical Quarterly 34, 1984, 31-43.

'On Spurious Egocentricity', Analysis 44, 1984, 25-29.

'Prior's Conception of Time', Proceedings of the Aristotelian Society 84, 1984, 193-209.

'Seeing the Present', Mind 93, 1984, 161-176. (Reprinted in: Questions of Time and Tense, ed. R. LePoidevin, O.U.P., 1998.)

'Relationism and Possible Worlds', British Journal for the Philosophy of Science 35, 1984, 101-113.

'Indexicals and Tense', in Exercises in Analysis, ed I Hacking, CUP, 1984, 69-87.

'Spatial and Temporal Parts', The Philosophical Quarterly 35, 1985, 32- 44. (Reprinted in: Identity, ed. H. Noonan, International Research Library of Philosophy, Dartmouth Publishing, 1993.)

'Content and Context', in Language, Mind and Logic, ed. J. Butterfield, C.U.P., 1986, 91-122.

'Probability and Disturbing Measurement', Aristotelian Society Supplementary Volume 61, 1987, 211-243.

'Predicate Modifiers in Tense Logic', Logique et Analyse 117, 1987, 31- 50; with Colin Stirling.

'Do the Bell Inequalities Imply the Existence of Joint Distributions?', Philosophy of Science 55, 1988, 387-401; with George Svetlichny, Michael Redhead and Harvey Brown.

'Determinism and Substantivalism', International Studies in Philosophy of Science 2, 1988, 10-32.

'The Hole Truth', British Journal for the Philosophy of Science 40, 1989, 1-28.

'A Spacetime Approach to the Bell Inequality', in Philosophical Lessons from Quantum Theory, ed. J. Cushing and E. McMullin, University of Notre Dame Press, 1989, 114-144.

- 'Albert Einstein Meets David Lewis', in Proceedings of the Philosophy of Science Association 1988, volume 2, ed. A. Fine and M. Forbes, Philosophy of Science Association, 1989, 65-81. (Reprinted in: Spacetime, ed. with others, International Research Library of Philosophy, Dartmouth Publishing, 1996.)
- 'Nonlocal Influences and Possible Worlds', British Journal for the Philosophy of Science, 41, 1990, 5-58; with Robert Clifton and Michael Redhead.
- 'Causal Independence in EPR Arguments', in Proceedings of the Philosophy of Science Association 1990, volume 1, ed. A. Fine and M. Forbes, Philosophy of Science Association, 1990, 213-226.
- 'A Generalization of the Greenberger-Horne-Zeilinger Algebraic Proof of Non-Locality', Foundations of Physics, 21, 1991, 149-184; with Robert Clifton and Michael Redhead.
- 'A Second Look at a Recent Algebraic Proof of Nonlocality', Foundations of Physics Letters, 4, 1991, 395-403; with Robert Clifton and Michael Redhead.
- 'Bell's Theorem: What it Takes', British Journal for the Philosophy of Science, 43, 1992, 41-83.
- 'David Lewis Meets John Bell', Philosophy of Science, 59, 1992, 26-43.
- 'Probabilities and Conditionals: Distinctions by Example', Proceedings of the Aristotelian Society, 92, 1992, 251-272.
- 'Is there Superluminal Causation in Quantum Theory?', in Bell's Theorem and the Foundations of Modern Physics, ed. A. van der Merwe, F. Selleri and G. Tarozzi, World Scientific, 1992, 203-207; with Gordon Fleming.
- 'Parameter Dependence and Outcome Dependence in Dynamical Models of Statevector Reduction', Foundations of Physics, 23, 1993, 341-364; with GianCarlo Ghirardi, Renata Grassi and Gordon Fleming. (An improved version is in International Journal of Theoretical Physics, 32, 1993, 2287-2304.)
- 'Forms for Probability Ascriptions', International Journal of Theoretical Physics, 32, 1993, 2271-2286.
- 'A Galois Connection Approach to Superposition and Inaccessibility', International Journal of Theoretical Physics, 32, 1993, 2305-2321; with Joseph Melia.
- 'Outcome Dependence and Stochastic Einstein Nonlocality', in Logic and Philosophy of Science in Uppsala, (Selected Papers from the 9th International Congress of Logic Methodology and Philosophy of Science), ed. D. Prawitz and D. Westerdaahl, Kluwer, 1994, 385-424.
- 'Is Algebraic Relativistic Quantum Field Theory Stochastic Einstein Local?', Philosophy of Science, 61, 1994, 457-474; with Fred Muller.
- 'Vacuum Correlations and Outcome Dependence in Algebraic Quantum Field Theory', in Fundamental Problems in Quantum Theory, Annals of the New York Academy of Sciences, ed. D. Greenberger & A. Zeilinger, 1995; Proceedings of a conference in honour of John Wheeler; 768-785.
- 'Worlds, Minds and Quanta', Aristotelian Society Supplementary Volume 69, 1995, 113-158.
- 'Whither the Minds?', British Journal for the Philosophy of Science, 47, 1996, 200-221.

'Quantum Curiosities of Psychophysics', in Consciousness and Human Identity, ed. J. Cornwell, Oxford University Press, 1998; 122-157. PITT-PHIL-SCI00000193.

'Strange Positions', in From Physics to Philosophy, C.U.P., 1999, (ed. with C. Pagonis), 1999; 108-165; with Gordon Fleming.

'A Topos Perspective on the Kochen-Specker Theorem: I. Quantum States as Generalized Valuations', International Journal of Theoretical Physics, 37, 1998, 2669-2733; quant-ph/980355; with Chris Isham.

'A Topos Perspective on the Kochen-Specker Theorem: II. Conceptual Aspects and Classical Analogues', International Journal of Theoretical Physics, 38, 1999, 827-859; quant-ph/9808067; with Chris Isham.

'On the Emergence of Time in Quantum Gravity', in The Arguments of Time, British Academy and O.U.P., 1999; 111-168; gr-qc/9901024; with Chris Isham.

'Aspetti del Determinismo', Statistica, 58, 1999; 349-359.

'A Topos Perspective on the Kochen-Specker Theorem: III. Von Neumann Algebras as the Base Category', International Journal of Theoretical Physics, 39, 2000, 1413-1436; quant-ph/9911020; with John Hamilton and Chris Isham.

'Some Possible Roles for Topos Theory in Quantum Theory and Quantum Gravity', *Foundations of Physics*, 30, 2000, 1707-1735; gr-qc/9910005; with Chris Isham.

'The State of Physics: Halfway through the Woods', The Journal of Soft Computing, 5, 2001, 129-130.

'Spacetime and the Philosophical Challenge of Quantum Gravity', in Physics meets Philosophy at the Planck Scale, C.U.P., (ed. C. Callender and N. Huggett), 2001; 33-89; gr-qc/9903072; with Chris Isham.

'Some Worlds of Quantum Theory', in R. Russell, J. Polkinghorne et al (ed.), *Quantum Mechanics (Scientific Perspectives on Divine Action vol 5)*, Vatican Observatory Publications, 2002; 111-140. quant-ph/0105052; PITT-PHIL-SCI00000204.

'A Topos Perspective on the Kochen-Specker Theorem: IV. Interval Valuations', International Journal of Theoretical Physics, 41, 2002, 613-639; quant-ph/0107123; with Chris Isham.

'Topos Theory as a Framework for Partial Truth', in P. Gardenfors, K. Kijania-Placek and J. Wolenski (ed.s), *In the Scope of Logic, Methodology and Philosophy of Science* (volume 1), Kluwer Academic, 2002; 307-329; PITT-PHIL-SCI00000192.

'David Lewis Meets Hamilton and Jacobi', in *Philosophy of Science*, 71, 2004, 1095-1106. <http://philsci-archive.pitt.edu/archive/00001191/>

'Some Aspects of Modality in Analytical Mechanics', in P. Weingartner and M. Stoeltzner (eds), *Formale Teleologie und Kausalitat in der Physik*, Mentis 2004; 160-198; physics/0210081; <http://philsci-archive.pitt.edu/archive/00001192/>

'On Hamilton-Jacobi Theory as a Classical Root of Theory', in A. Elitzur, S. Dolev and N. Kolenda (eds.), *Quo Vadis Quantum Mechanics?*, Springer 2004; 239-273; quant-ph/0210140. <http://philsci-archive.pitt.edu/archive/00001193/>

'On the Persistence of Particles', in *Foundations of Physics*, 35, 2005, 233-269; physics/0401112; <http://philsci-archive.pitt.edu/archive/00001586/>.

'The Rotating Discs Argument Defeated', *British Journal for the Philosophy of Science*, 57, 2006, 1-45 <http://philsci-archive.pitt.edu/archive/00002382/>

'Against *Pointillisme* in Geometry', in F. Stadler, M. Stoeltzner (eds.), *Time and History; Proceedings of 28<sup>th</sup> International Wittgenstein Conference*, Ontos Verlag 2006, 181-222. Available at: <http://philsci-archive.pitt.edu/archive/00002552/> or <http://arxiv.org/abs/physics/0512063>.

'Against *Pointillisme* in Mechanics', *British Journal for the Philosophy of Science*, 57, 2006, 709-754. Available at: <http://philsci-archive.pitt.edu/archive/00002553/> or <http://arxiv.org/abs/physics/0512064>.

'On Symplectic Reduction in Classical Mechanics', in J. Earman and JNB (eds.) *The Handbook of Philosophy of Physics*, North Holland 2006; 1 - 131. Available at: physics/0507194 and at <http://philsci-archive.pitt.edu/archive/00002373/>

'On Symmetries and Conserved Quantities in Classical Mechanics', in W. Demopoulos and I. Pitowsky (eds.), *Physical Theory and its Interpretation*, Springer 2006; 43 - 99; Available at: physics/0507192 and at <http://philsci-archive.pitt.edu/archive/00002362/>

#### On E-archives (too long for a journal!)

'On the Persistence of Homogeneous Matter', 100 pages; physics/0406021: <http://philsci-archive.pitt.edu/archive/00001760/>

'Between Laws and Models: Some Philosophical Morals of Lagrangian Mechanics', 105 pages: physics/0409030; <http://philsci-archive.pitt.edu/archive/00001937/>

#### c) Review Articles

'Interpretation and Identity in Quantum Theory', *Studies in the History and Philosophy of Science*, 24, 1993, 443-476;

(Ostensibly, a review of two books on philosophy of quantum theory—B. van Fraassen, *Quantum Mechanics*; and B. Hiley & F. Peat ed.s, *Quantum Implications*—this is mostly about the identity of quantum objects). Translated in part into Italian in *Iride*, 7, 1995, 232-239.

'The End of Time?', *British Journal for the Philosophy of Science*, 53, 2002, 289-330 (Ostensibly a review of J. Barbour, *The End of Time*, this is in effect a survey of some Machian themes in dynamics); gr-qc/0103055; PITT-PHIL-SCI00000104

#### d) Expository Articles:

'Two Problems of Quantum Measurement', *Eureka* 47, 1987, 30-44.

'Causalita', forthcoming in *Dizionario delle Scienze Fisiche*, *Enciclopedia Italiana*.

'Determinism and Indeterminism', in *The Encyclopedia of Philosophy*, ed. Edward Craig, Routledge, 1998; revised 2003.

#### e) Reviews

L.J. Cohen, *The Provable and the Probable*; *Cambridge Review*, 17 November 1978, 44-49.

H. Mehlberg, *Time, Causality and Quantum Theory*; *Philosophical Books* 23, 1982, 94-96.

L.J. Cohen & M.B. Hesse ed.s, *Applications of Inductive Logic*; *Mind* 92, 1983, 145-147.

W. Newton-Smith, *The Structure of Time*; *Philosophical Review* 92, 1983, 468-471.

- J. van Benthem, The Logic of Time; Philosophical Books 25, 1984, 53-55.
- D. Armstrong, What is a Law of Nature?; Mind 94, 1985, 164-166.
- J. Barwise & J. Perry, Situations and Attitudes; The Philosophical Quarterly 36, 1986, 292-296.
- M. Friedman, Foundations of Spacetime Theories; International Studies in Philosophy 19, 1987, 77-78.
- A. Fine, The Shaky Game; Mind 97, 1988, 291-295.
- E. Lepore ed., Truth and Interpretation: Essays on Davidson; Philosophical Review 97, 1988, 107-110.
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- O. Darrigol, From C-Numbers to Q-Numbers: the Classical Analogy in the History of Quantum Theory; Physics World 6:8, August 1993, 55-56.
- E. Castellani, Interpreting Bodies, Le Scienze 373, 1999, p. 412.
- D. Dieks and P. Vermaas (ed.), The Modal Interpretation of Quantum Mechanics, Metascience 9, 2000, 489-494.
- Y. Guttman, The Concept of Probability in Statistical Mechanics, Mind 109, 2000, 923-926.
- W. Dickson, Quantum Chance and Nonlocality, Philosophy of Science 68, 2001, 263-266.
- H. Kragh, Quantum Generations, Nuncius 15, 2000, 784-787.
- J. Barrett, The Quantum Mechanics of Minds and Worlds, European Journal of Philosophy 9, 2001, 230-233.
- R. Torretti, The Philosophy of Physics, Physics in Perspective 4, 2000 .
- M. Beller, Quantum Dialogue, Contemporary Physics 43, 2002, 230-231.
- H. Pilkuhn, Relativistic Quantum Mechanics, Contemporary Physics, 45, 2004, 89.
- P. Weingartner, Alternative Logics: does Science Need them, Contemporary Physics, 46, 2005, 57-58
- E. Joos et al., Decoherence and the Appearance of a Classical World in Quantum Theory, and G. Sewell, Quantum Mechanics and its Emergent Macrophysics, Philosophy of Science, 72, 2005, 395-399.

#### Articles In Press

- 'Stochastic Einstein Locality Revisited', forthcoming in *British Journal for the Philosophy of Science*
- 'Reconsidering relativistic causality', forthcoming in *International Studies in the Philosophy of Science*