Curriculum Vitae: John Feather WHEATER

1 Biographical Summary

Born John Feather Wheater, 1958 in London, UK.

Nationality British.

- 1976-79 B.A in Physics, Christ Church, University of Oxford; awarded a first class honours degree and the Scott Prize for Physics.
- 1979-81 D.Phil in theoretical particle physics at the Department of Theoretical Physics, Oxford; supervised by Dr C.H. Llewellyn Smith, thesis title "The Determination of the Electroweak Mixing Angle from Experiments".
- 1981-84 Junior Research Fellow in theoretical physics at Christ Church, University of Oxford.
- 1984-85 "New Blood" lecturer in theoretical particle physics at the University of Durham.
- **1985-2015** Lecturer in Physics at the University of Oxford and Official Fellow and Tutor in Physics of University College, Oxford.
- 1990 Sabbatical leave spent at Niels Bohr Inst., Copenhagen.
- 1993 Awarded the 1993 Maxwell Prize and Medal of the U.K. Institute of Physics.
- 1996-7 Sabbatical leave.
- 1997 Reader in Physics at the University of Oxford.
- 2000-9 Trustee of University College Old Members' Trust.
- 2003-4 Sabbatical leave spent at Niels Bohr Inst., Copenhagen.
- 2004-5 Senior Proctor, Oxford University.
- 2005-10 Associate Chairman of Physics, University of Oxford
- 2008-10 Head of Theoretical Physics, University of Oxford
- 2009 Acting Chairman of Physics, University of Oxford (January April)
- Sept 2010-15 Head of Physics Department (formerly known as Chairman of Physics), University of Oxford
- 2015 Full Professor, University of Oxford
- 2015- Re-appointed Head of Physics, University of Oxford
- I am married with two grown-up daughters.

2 Publications

2.1 Papers in Refereed Journals

Quite a lot of my work has been interdisciplinary between particle physics theory and statistical mechanics and bibliographic databases tend to struggle to pick everything up. The citation counts given below are the greater of those from INSPIRE (the main particle physics database) and from Web of Science (more reliable for condensed matter and statistical physics). On this basis I have 68 publications in refereed journals with an average of 23 citations each, four papers with more than 100 citations, two papers with more than 50 citations, and h=21.

- A restricted dimer model on a two-dimensional random causal triangulation J. Ambjørn, B. Durhuus and J. F. Wheater. arXiv:1405.6782 [hep-th] 10.1088/1751-8113/47/36/365001 J. Phys. A 47, 365001 (2014)
- Multigraph models for causal quantum gravity and scale dependent spectral dimension G. Giasemidis, J. F. Wheater and S. Zohren. arXiv:1202.6322 [hep-th] 10.1088/1751-8113/45/35/355001 J. Phys. A 45, 355001 (2012) 10 citations counted in INSPIRE as of 14 Feb 2014
- 3. Dynamical dimensional reduction in toy models of 4D causal quantum gravity G. Giasemidis, J. F. Wheater and S. Zohren. arXiv:1202.2710 [hep-th] 10.1103/PhysRevD.86.081503 Phys. Rev. D 86, 081503 (2012) 11 citations counted in INSPIRE as of 14 Feb 2014
- Continuum Random Combs and Scale Dependent Spectral Dimension M. R. Atkin, G. Giasemidis and J. F. Wheater. arXiv:1101.4174 [hep-th] 10.1088/1751-8113/44/26/265001
 J. Phys. A 44, 265001 (2011) 12 citations counted in INSPIRE as of 14 Feb 2014
- The Spectrum of FZZT Branes Beyond the Planar Limit M. R. Atkin and J. F. Wheater. arXiv:1011.5989 [hep-th] 10.1007/JHEP02(2011)084 JHEP 1102, 084 (2011) 5 citations counted in INSPIRE as of 14 Feb 2014
- On the spectral dimension of causal triangulations B. Durhuus, T. Jonsson and J. F. Wheater. arXiv:0908.3643 [math-ph] 10.1007/s10955-010-9968-x J. Stat. Phys. 139, 859 (2010) 12 citations counted in INSPIRE as of 14 Feb 2014
- 7. Biased random walks on random combs T. M. Elliott and J. F. Wheater. 10.1088/1751-8113/40/29/005 J. Phys. A 40, 8265 (2007) 1 citations counted in Web of Science as of 14 Feb 2014
- The Spectral dimension of generic trees B. Durhuus, T. Jonsson and J. F. Wheater. math-ph/0607020 10.1007/s10955-007-9348-3 J. Stat. Phys. 128, 1237 (2007) 17 citations counted in Web of Science as of 14 Feb 2014
- Random walks on combs B. Durhuus, T. Jonsson and J. F. Wheater. hep-th/0509191 10.1088/0305-4470/39/5/002 J. Phys. A 39, 1009 (2006) 21 citations counted in Web of Science as of 14 Feb 2014
- 10. Adding a Myers term to the IIb matrix model P. Austing and J. F. Wheater. hep-th/0310170 10.1088/1126-6708/2003/11/009 JHEP **0311**, 009 (2003) 12 citations counted in INSPIRE as of 14 Feb 2014

- 11. Polyakov lines in Yang-Mills matrix models P. Austing, G. Vernizzi and J. F. Wheater. hep-th/0309026 10.1088/1126-6708/2003/09/023 JHEP 0309, 023 (2003) 4 citations counted in INSPIRE as of 14 Feb 2014
- Veneziano-Yankielowicz superpotential terms in N=1 SUSY gauge theories
 B. M. Gripaios and J. F. Wheater. hep-th/0307176 10.1016/j.physletb.2004.02.064
 Phys. Lett. B 587, 150 (2004) 9 citations counted in INSPIRE as of 14 Feb 2014
- Free boson formulation of boundary states in W(3) minimal models and the critical Potts model A. F. Caldeira, S. Kawai and J. F. Wheater. hep-th/0306082 10.1088/1126-6708/2003/08/041 JHEP 0308, 041 (2003) 3 citations counted in IN-SPIRE as of 14 Feb 2014
- 14. Rotational symmetry breaking in multimatrix models G. Vernizzi and J. F. Wheater. hep-th/0206226 10.1103/PhysRevD.66.085024, 10.1103/PhysRevD.67.029904 Phys. Rev. D 66, 085024 (2002), [Erratum-ibid. D 67, 029904 (2003)] 20 citations counted in IN-SPIRE as of 14 Feb 2014
- 15. Modular transformation and boundary states in logarithmic conformal field theory S. Kawai and J. F. Wheater. hep-th/0103197 10.1016/S0370-2693(01)00503-2 Phys. Lett. B 508, 203 (2001) 41 citations counted in INSPIRE as of 14 Feb 2014
- 16. Convergent Yang-Mills matrix theories P. Austing and J. F. Wheater. hep-th/0103159 10.1088/1126-6708/2001/04/019 JHEP 0104, 019 (2001) 50 citations counted in INSPIRE as of 14 Feb 2014
- 17. The Convergence of Yang-Mills integrals P. Austing and J. F. Wheater. hepth/0101071 10.1088/1126-6708/2001/02/028 JHEP 0102, 028 (2001) 44 citations counted in INSPIRE as of 14 Feb 2014
- Boundary logarithmic conformal field theory I. I. Kogan and J. F. Wheater. hepth/0003184 10.1016/S0370-2693(00)00767-X Phys. Lett. B 486, 353 (2000) 49 citations counted in INSPIRE as of 14 Feb 2014
- 19. What does E(8) know about eleven-dimensions? I. I. Kogan and J. F. Wheater. hep-th/9911252 10.1016/S0217-7323(00)00084-0 Mod. Phys. Lett. A 15, 851 (2000)
- Peeling and multicritical matter coupled to quantum gravity M. G. Harris and J. F. Wheater. hep-th/9911189 10.1016/S0550-3213(00)00432-6 Nucl. Phys. B 586, 518 (2000) 1 citations counted in INSPIRE as of 14 Feb 2014
- 21. Bottleneck surfaces and world sheet geometry of higher curvature quantum gravity R. J. Szabo and J. F. Wheater. hep-th/9910195 10.1088/1126-6708/2000/05/033 JHEP 0005, 033 (2000)
- The Hausdorff dimension in polymerized quantum gravity M. G. Harris and J. F. Wheater. hep-th/9811205 10.1016/S0370-2693(99)00046-5 Phys. Lett. B 448, 185 (1999) 2 citations counted in INSPIRE as of 14 Feb 2014
- Area distribution for directed random walks T. Jonsson and J. F. Wheater. 10.1023/A:1023053024552 J. Stat. Phys. 92, 713 (1998) 4 citations counted in Web of Science as of 14 Feb 2014

- The Spectral dimension of non-generic branched polymer ensembles J. D. Correia and J. F. Wheater. hep-th/9712058 10.1016/S0370-2693(98)00055-0 Phys. Lett. B 422, 76 (1998) 19 citations counted in INSPIRE as of 14 Feb 2014
- 25. The Spectral dimension of the branched polymer phase of two-dimensional quantum gravity T. Jonsson and J. F. Wheater. hep-lat/9710024 10.1016/S0550-3213(98)00027-3 Nucl. Phys. B 515, 549 (1998) 32 citations counted in INSPIRE as of 14 Feb 2014
- Branched polymers, complex spins and the freezing transition J. D. Correia, B. Mirza and J. F. Wheater. hep-lat/9708027 10.1016/S0370-2693(97)01242-2 Phys. Lett. B 415, 15 (1997) 2 citations counted in INSPIRE as of 14 Feb 2014
- 27. ND tadpoles as new string states and quantum mechanical particle wave duality from world sheet T duality I. I. Kogan and J. F. Wheater. hep-th/9703141 10.1016/S0370-2693(97)00485-1 Phys. Lett. B 403, 31 (1997) 7 citations counted in INSPIRE as of 14 Feb 2014
- Curvature matrix models for dynamical triangulations and the Itzykson-Di Francesco formula R. J. Szabo and J. F. Wheater. hep-th/9609237 10.1016/S0550-3213(97)00045-X Nucl. Phys. B 491, 689 (1997) 5 citations counted in Web of Science as of 14 Feb 2014
- 29. A Simple model of dimensional collapse J. D. Correia and J. F. Wheater. hepth/9608021 10.1016/S0370-2693(96)01223-3 Phys. Lett. B 388, 707 (1996) 4 citations counted in INSPIRE as of 14 Feb 2014
- 30. Critical properties of the Z(3) interface in (2+1)-dimensions SU(3) gauge theory S. T. West and J. F. Wheater. hep-lat/9607005 10.1016/S0550-3213(96)00636-0 Nucl. Phys. B 486, 261 (1997) 5 citations counted in INSPIRE as of 14 Feb 2014
- D-brane recoil and logarithmic operators I. I. Kogan, N. E. Mavromatos and J. F. Wheater. hep-th/9606102 10.1016/0370-2693(96)01067-2 Phys. Lett. B 387, 483 (1996) 127 citations counted in INSPIRE as of 14 Feb 2014
- 32. High temperature properties of the Z(3) interface in (2+1)-dimensions SU(3) gauge theory S. T. West and J. F. Wheater. hep-lat/9605040 10.1016/0370-2693(96)00731-9 Phys. Lett. B 383, 205 (1996) 4 citations counted in INSPIRE as of 14 Feb 2014
- 33. The critical exponents of crystalline random surfaces J. F. Wheater [UKQCD Collaboration]. hep-lat/9503008 10.1016/0550-3213(95)00544-7 Nucl. Phys. B 458, 671 (1996) 37 citations counted in Web of Science as of 14 Feb 2014
- 34. Random surfaces: From polymer membranes to strings J. F. Wheater. 10.1088/0305-4470/27/10/009 J. Phys. A 27, 3323 (1994). 38 citations counted in Web of Science as of 14 Feb 2014
- 35. The Phase diagram of an Ising model on a polymerized random surface T. Jonsson and J. F. Wheater. hep-th/9411013 10.1016/0370-2693(94)01619-N Phys. Lett. B **345**, 227 (1995) 5 citations counted in INSPIRE as of 14 Feb 2014

- 36. Multiple Ising spins coupled to 2-d quantum gravity M. G. Harris and J. F. Wheater. hep-th/9404174 10.1016/0550-3213(94)90271-2 Nucl. Phys. B 427, 111 (1994) 18 citations counted in INSPIRE as of 14 Feb 2014
- 37. An improved metropolis algorithm for the simulation of random surfaces M. G. Harris and J. F. Wheater. 10.1142/S0217732393002713 Mod. Phys. Lett. A 8 1221 (1993)
- 38. On the transition from crystalline to dynamically triangulated random surfaces N. Ferguson and J. F. Wheater. hep-lat/9308005 10.1016/0370-2693(93)90788-J Phys. Lett. B **319**, 104 (1993) 13 citations counted in Web of Science as of 14 Feb 2014
- 39. On the crumpling transition in crystalline random surfaces J. F. Wheater *et al.* [UKQCD Collaboration]. hep-lat/9301007 10.1016/0370-2693(93)90425-H Phys. Lett. B 302, 447 (1993) 27 citations counted in Web of Science as of 14 Feb 2014
- Thermodynamics of SU(3) lattice gauge theory in (2+1)-dimensions J. Christensen, G. Thorleifsson, P. H. Damgaard and J. F. Wheater. 10.1016/0550-3213(92)90483-R Nucl. Phys. B 374, 225 (1992). 27 citations counted in INSPIRE as of 14 Feb 2014
- Topology and two-dimensional lattice gauge theories J. F. Wheater. 10.1016/0370-2693(91)90721-2 Phys. Lett. B 264, 161 (1991). 8 citations counted in Web of Science as of 14 Feb 2014
- 42. The Crumpling transition of crystalline random surfaces R. G. Harnish and J. F. Wheater. 10.1016/0550-3213(91)90166-U Nucl. Phys. B 350, 861 (1991). 41 citations counted in Web of Science as of 14 Feb 2014
- 43. A Topological Lattice Model J. F. Wheater. 10.1016/0370-2693(89)91631-6 Phys. Lett. B 223, 451 (1989). 11 citations counted in INSPIRE as of 14 Feb 2014
- 44. The Instantons of Surfaces in Four-dimensions J. F. Wheater. 10.1016/0370-2693(88)90634-X Phys. Lett. B 208, 388 (1988). 7 citations counted in INSPIRE as of 14 Feb 2014
- 45. Phase Transitions in Random Surfaces M. Baig, D. Espriu and J. F. Wheater. 10.1016/0550-3213(89)90409-4 Nucl. Phys. B **314**, 587 (1989). 37 citations counted in Web of Science as of 14 Feb 2014
- 46. Topological Stability In Higher Dimensional Theories M. J. Duncan, G. Segre and J. F. Wheater. 10.1016/0550-3213(88)90575-5 Nucl. Phys. B **308**, 509 (1988). 4 citations counted in Web of Science as of 14 Feb 2014
- 47. Random Lattice Laplacians And X-Y Models J. F. Wheater.
 10.1016/0370-2693(87)90682-4 Phys. Lett. B 198, 373 (1987). 2 citations counted in INSPIRE as of 14 Feb 2014
- Interacting Fermions On A Random Lattice S. J. Perantonis and J. F. Wheater. 10.1016/0550-3213(88)90364-1 Nucl. Phys. B 295, 443 (1988). 10 citations counted in INSPIRE as of 14 Feb 2014

- 49. The Doubling Problem on a Random Lattice D. Espriu, M. Gross, P. E. L. Rakow and J. F. Wheater. 10.1016/0550-3213(86)90588-2 Nucl. Phys. B **275**, 39 (1986). 25 citations counted in INSPIRE as of 14 Feb 2014
- 50. Exotic Phenomena In High-energy e p Collisions R. J. Cashmore, S. Chadha, M. Cribier, D. Cords, R. Devenish, B. Lohr, P. Mattig and J. Proudfoot et al.. 10.1016/0370-1573(85)90046-8 Phys. Rept. 122, 275 (1985). 105 citations counted in INSPIRE as of 14 Feb 2014
- Deconfining Transitions in (2+1)-dimensional SU(3) and SU(4) Gauge Theories M. Gross and J. F. Wheater. 10.1007/BF01413610 Z. Phys. C 28, 471 (1985).
 13 citations counted in INSPIRE as of 14 Feb 2014
- 52. Scales of Deconfinement? M. Gross and J. F. Wheater. 10.1103/PhysRevLett.54.389 Phys. Rev. Lett. 54, 389 (1985). 8 citations counted in INSPIRE as of 14 Feb 2014
- 53. On The Order Of The SU(N) Deconfinement Phase Transition M. Gross and J. F. Wheater. 10.1016/0550-3213(84)90478-4 Nucl. Phys. B **240**, 253 (1984). 38 citations counted in INSPIRE as of 14 Feb 2014
- 54. Comment On 'is Proton Decay Measurable?' J. F. Wheater and R. Peierls. 10.1103/PhysRevLett.51.1601 Phys. Rev. Lett. 51, 1601 (1983). 9 citations counted in Web of Science as of 14 Feb 2014
- 55. Three-dimensional deconfinement transitions and conformal symmetry J. Christensen, G. Thorleifsson, P. H. Damgaard and J. F. Wheater. 10.1016/0370-2693(92)91670-5 Phys. Lett. B 276, 472 (1992). 14 citations counted in INSPIRE as of 14 Feb 2014
- 56. The Phase structure of two-dimensional pure lattice gauge theories with Chern term T. G. Kovacs and J. F. Wheater. 10.1142/S0217732391003298 Mod. Phys. Lett. A 6, 2827 (1991). 3 citations counted in INSPIRE as of 14 Feb 2014
- 57. Parity Violating Vacuum Currents On The Random Lattice S. M. Catterall and J. F. Wheater. 10.1016/0370-2693(88)91023-4 Phys. Lett. B **213**, 186 (1988). 1 citations counted in Web of Science as of 14 Feb 2014
- Continuum Limit On A Two-dimensional Random Lattice D. Espriu, M. Gross,
 P. E. L. Rakow and J. F. Wheater. 10.1016/0550-3213(86)90408-6 Nucl. Phys. B 265, 92 (1986). 34 citations counted in Web of Science as of 14 Feb 2014
- On Spontaneous Symmetry Breaking in the Lattice Abelian Higgs Model D. Espriu and J. F. Wheater. 10.1016/0550-3213(85)90604-2 Nucl. Phys. B 258, 101 (1985). 20 citations counted in INSPIRE as of 14 Feb 2014
- 60. Evidence of a First Order Deconfinement Phase Transition for Finite Temperature SU(4) Gauge Theory J. F. Wheater and M. Gross. 10.1016/0370-2693(84)91289-9 Phys. Lett. B 144, 409 (1984). 22 citations counted in Web of Science as of 14 Feb 2014
- Rigorous Inequalities in Vector Like Gauge Theories D. Espriu, M. Gross and J. F. Wheater. 10.1016/0370-2693(84)90645-2 Phys. Lett. B 146, 67 (1984). 31 citations counted in INSPIRE as of 14 Feb 2014

- 62. Numerical Results on $\eta\phi^6$ Theory in Three-dimensions J. F. Wheater. 10.1016/0370-2693(84)92029-X Phys. Lett. B **136**, 402 (1984). 10 citations counted in INSPIRE as of 14 Feb 2014
- 63. On the Measurement of $\sin^2 \theta_W$ at HERA J. F. Wheater. 10.1016/0550-3213(84)90573-X Nucl. Phys. B **233**, 365 (1984). 8 citations counted in INSPIRE as of 14 Feb 2014
- 64. A New Proposal for Monte Carlo Simulation of Fermions on a Lattice S. J. Anthony, C. H. Llewellyn Smith and J. F. Wheater. 10.1016/0370-2693(82)90344-6 Phys. Lett. B 116, 287 (1982). 17 citations counted in INSPIRE as of 14 Feb 2014
- 65. Electroweak Radiative Corrections to Neutrino and Electron Scattering and the Value of $\sin^2 \theta_W$ J. F. Wheater and C. H. Llewellyn Smith. 10.1016/0550-3213(82)90187-0 Nucl. Phys. B **208**, 27 (1982), [Erratum-ibid. B **226**, 547 (1983)]. 120 citations counted in INSPIRE as of 14 Feb 2014
- 66. The Value of $\sin^2 \theta_W$ in Atomic Physics Experiments J. F. Wheater. 10.1016/0370-2693(81)91209-0 Phys. Lett. B 105, 483 (1981). 18 citations counted in INSPIRE as of 14 Feb 2014
- 67. Electroweak Radiative Corrections and the Value of $\sin^2 \theta_W$ C. H. Llewellyn Smith and J. F. Wheater. 10.1016/0370-2693(81)91210-7 Phys. Lett. B 105, 486 (1981). 166 citations counted in INSPIRE as of 14 Feb 2014
- Low-energy Predictions From Grand Unified Theories C. H. LLewellyn Smith, G. G. Ross and J. F. Wheater. 10.1016/0550-3213(81)90391-6 Nucl. Phys. B 177, 263 (1981). 78 citations counted in INSPIRE as of 14 Feb 2014

2.2 Other Publications

- Aspects of dynamical dimensional reduction in multigraph ensembles of CDT G. Giasemidis, J. F. Wheater and S. Zohren. arXiv:1209.4798 [hep-th] 10.1088/1742-6596/410/1/012154 J. Phys. Conf. Ser. 410, 012154 (2013)
- Spectral dimension flow on continuum random multigraph G. Giasemidis, J. F. Wheater and S. Zohren. arXiv:1209.4786 [hep-th] 10.1063/1.4758993 AIP Conf. Proc. 1483, 455 (2012)
- Charged boundary states in a Z(3) extended minimal string S. Kawamoto, J. F. Wheater and S. Wilshin. 10.1142/S0217751X08040998 Int. J. Mod. Phys. A 23, 2257 (2008).
- 4. On the spectral dimension of generic trees B. Durhuus, T. Jonsson and J. F. Wheater at the Fourth Colloquium on Mathematics and Computer Science Algorithms, Trees, Combinatorics and Probabilities, Discrete Mathematics and Theoretical Computer Science pp. 183–92 (2006).
- 5. From fields to strings: Circumnavigating theoretical physics. Ian Kogan memorial collection (3 volume set) M. Shifman, A. Vainshtein and J. Wheater. Singapore: World Scientific (2005) 2348 p

- Boundary states and broken bulk symmetries in W A(r) minimal models
 A. F. Caldeira and J. F. Wheater. hep-th/0404052 In *From fields to strings*, vol. 2, ed.
 M. Shifman, et al., 1441 (2005)
- 7. Symmetries in QFT, graduate lecture notes, K. M. Hamilton and J. F. Wheater. hep-ph/0310065
- 8. The spectral dimension on branched polymer ensembles T. Jonsson and J. F. Wheater in *New Developments in Quantum Field Theory* NATO Advanced Science Institutes, Series B, **366** 341 (1998)
- The Spectral dimension of non-generic branched polymers J. F. Wheater and J. Correia. hep-lat/9808020 10.1016/S0920-5632(99)85202-5 Nucl. Phys. Proc. Suppl. 73, 783 (1999)
- 10. Three state complex valued spins coupled to binary branched polymers in two-dimensional quantum gravity J. D. Correia and J. F. Wheater. heplat/9709069 10.1016/S0920-5632(97)00894-3 Nucl. Phys. Proc. Suppl.
- Properties of the Z(3) interface in (2+1)-dimensions SU(3) gauge theory S. T. West and J. F. Wheater. hep-lat/9509001 10.1016/0920-5632(96)00116-8 Nucl. Phys. Proc. Suppl. 47, 535 (1996)
- Random surfaces and lattice quantum gravity J. F. Wheater. 10.1016/0920-5632(94)90317-4 Nucl. Phys. Proc. Suppl. 34, 15 (1994).
- Random surfaces and 2-D quantum gravity. Proceedings of the Workshop held in Barcelona, Spain, June 10-14, 1991. J. Ambjorn, P. H. Damgaard, D. Espriu, J. I. Latorre and J. F. Wheater. Amsterdam, Netherlands: North-Holland (1992) 217 p. (Nucl. Phys. B. (Proc. Suppl.) 25A (1992))
- 14. First results from the UKQCD Collaboration C. R. Allton *et al.* [UKQCD Collaboration]. 10.1016/0920-5632(92)90238-N Nucl. Phys. Proc. Suppl. 26, 211 (1992).
- 15. The Use of Fourier acceleration in the Langevin simulation of random surfaces J. F. Wheater. In "Cargese 1989, Proceedings, Probabilistic methods in quantum field theory and quantum gravity" 331-337.
- Some MC Results For Random Surfaces With Extrinsic Curvature M. Baig, D. Espriu and J. F. Wheater. 10.1016/0920-5632(88)90088-6 Nucl. Phys. Proc. Suppl. 4, 88 (1988).
- 17. Random Lattices Versus Regular Lattices D. Espriu, M. Gross, P. E. L. Rakow and J. F. Wheater. 10.1143/PTPS.86.304 Prog. Theor. Phys. Suppl. 86, 304 (1986).
- Heavy Vector Bosons And Super Colliders C. H. Llewellyn Smith, J. F. Wheater and R. J. N. Phillips. Conf. Proc. C 840321, 543 (1984).
- 19. Radiative Corrections In $SU(2)_L \times U(1)$. Proceedings, Workshop, Trieste, Italy, June 6-8, 1983 B. W. Lynn and J. F. Wheater. Singapore, Singapore: World Scientific (1984) 335p

- 20. Radiative Corrections To Lepton Hadron Scattering Experiments J. F. Wheater. In "Trieste 1983, Proceedings, Radiative Corrections In $SU(2)_L \times U(1)$ ", 329-335
- 21. Semi-hadronic Experiments And Weak Interactions J. F. Wheater. In "Trieste 1983, Proceedings, Radiative Corrections In $SU(2)_L \times U(1)$ ", 227-236
- 22. Electroweak Radiative Corrections J. F. Wheater. In "Proceedings, High Energy Physics", 305-309, Paris 1982

3 Refereeing & Research Councils etc

- 1. I have refereed many papers for Journal of High Energy Physics, Journal of Physics A, Physical Review D and Letters, Physics Letters B, Nuclear Physics B and occasionally others.
- 2. I referee grant proposals for STFC(PPARC), EPSRC, and for the Netherlands FOM and occasionally others.
- 3. I was a member of the STFC(PPARC) Fellowships Panel 2004-5, 2009-10

4 Grants held

I only include grants that I have been associated with since 2000. (In the case of collaborative grants any figures given are the Oxford share.)

- 1. The Particle Theory Group, of which I am a member, collectively holds a Consolidated (formerly Rolling) Grant from STFC (formerly PPARC (formerly SERC)) and has done for many years. This grant supports a number of postdoctoral appointments (on average two at any one time), travel, and our local computing needs. Since 2002 these grants were:
 - (a) PPARC grant PPA/G/0/2002/00479 (2001-2005 Rolling Grant pre FEC)
 - (b) PPARC grant PP/D00036X/1 (2005-9 Rolling Grant, 28% JFW PI time)
 - (c) STFC grant ST/G000492/1 (2008-11 Rolling, turned into Consolidated, Grant, $\pounds 1.9\mathrm{m},\,20\%$ JFW PI time)
 - (d) STFC grant ST/J000507/1 (2011-14, £1m, no JFW PI time the panel quite rightly didn't believe I'd have any time for research but actually it didn't work out so badly so for next time they did give me some PI time!)
 - (e) STFC grant 2014-17 awarded, 10% JFW PI time.
- 2. PPARC 00-03: £200k Special Program Grant Ginsparg-Wilson fermions
- 3. EU HPRN-CT-1999-00161 network grant EUROGRID Discrete Random Geometries 2000-4
- 4. EU MRTN-CT-2004-005616 network grant ENRAGE Random Geometry and Random Matrices: From Quantum Gravity to Econophysics £206k 2005-9
- 5. EPSRC EP/I01263X/1 Multi-graph Ensembles as Toy Models for Causal Quantum Gravity £20k 2010

5 Conference Talks & Seminars

The list given below of conferences I have spoken at is probably not complete, especially for the early days.

- 1. Grand Unified Theories, Michigan 1981
- 2. High Energy Physics, Paris 1982
- 3. Radiative Corrections In $SU(2)_L \times U(1)$, Trieste, Italy, June 6-8, 1983
- 4. Probabilistic methods in quantum field theory and quantum gravity, Cargese 1989
- 5. Random Surfaces and 2D Quantum Gravity, Barcelona 1991.
- Lattice '93, plenary review speaker on "Random Surfaces and 2D Quantum Gravity", Dallas, 1993.
- NATO Advanced Research Workshop on New Developments in Quantum Field Theory, Zakopane, September 1997.
- 8. MaPhySto/Eurogrid Workshop on Quantum Geometry, Copenhagen, Denmark, 1998
- 9. Lattice '98, Boulder, Colorado, August 1998
- 10. M-theory and Quantum Geometry Akureyri, Iceland, 1999
- 11. MaPhySto/Eurogrid Workshop on Quantum Geometry, Copenhagen, Denmark, 2000
- 12. Meeting in honour of Boris Ioffe's 75th birthday, Saclay, Paris, 2001
- 13. Logarithmic Conformal Field Theory, IHES, Paris, 2002
- 14. The quantum structure of spacetime and the geometric nature of fundamental interactions, Copenhagen, September 2003
- 15. Integrable Models, Conformal Field Theory and Related Topics, Edinburgh, April 2004
- 16. Integrable Models, Conformal Field Theory and Related Topics, City University London, April 2005
- 17. First ENRAGE Network Conference, Edinburgh, April 2006.
- 18. Causal Set, Imperial College, September 2006.
- 19. Matrix Models, Barcelona, April 2007.
- Integrable Models, Conformal Field Theory and Related Topics, Kings College London, May 2007
- 21. Enraging Ideas, Utrecht, September 2007.
- 22. Lectures on "Random Walks on Trees and Surfaces" at the *Random Trees 2007* summer school, Reykjavik, August 2007.
- 23. Speaker at Introductory Symposium, Statistical physics, combinatorics and probability: from discrete to continuous models Institut Henri Poincaré, Paris 2009

- 24. NORDITA session on Random Geometry and Applications, November December, 2010
- 25. Specialist Topic Seminar, Summer School in Random Geometry, Reykjavik 2011
- 26. CDT and Friends, Nijmegen, the Netherlands, December 2012.

I have helped to organize of conferences, workshops and schools.

- 1. Member of the organizing committee of the Workshop on *Random Surfaces and 2D Quantum Gravity*, Barcelona 1991.
- 2. Member of the international organising committee for the NATO Advanced Research Workshop on *New Developments in Quantum Field Theory*, Zakopane, September 1997.
- 3. I was a member of the organizing committee for the British Universities Summer School in Theoretical Elementary Particle Physics 1995 to 2000. I directed the 2000 School which was held in Oxford.
- 4. I organized a scientific meeting in memory of my great friend Jan Kogan who died aged 44 in 2003. The meeting was held in Oxford in January 2004 and went wonderfully well.
- 5. In Sept 2008 I organized a one week *Workshop on Random Geometry* as part of the series funded by the ENRAGE grant.

I have made extended visits to various institutions.

- Physics Department, University of Michigan, Ann Arbor, Michigan, September December 1981
- 2. Niels Bohr Institute, Copenhagen January April 1990
- 3. CNRS Marseille, France, August 2000.
- 4. Niels Bohr Institute & Mathematic Institute, Copenhagen September 2003 March 2004
- 5. Statistical physics, combinatorics and probability: from discrete to continuous models Institut Henri Poincaré, Paris, September-October 2009
- 6. I visit the Niels Bohr Institute & Mathematics Institute in Copenhagen almost every year for a period of 3-4 weeks to work with Bergfinnur Durhuus.
- 7. I visit the Science Institute in Reykjavik most years for a period of 2-3 weeks to work with Thordur Jonsson.

I have given ordinary seminars at many Universities including: Cambridge, Edinburgh, Southampton, Imperial College, UCL, Durham, Edinburgh, Glasgow, Liverpool, Swansea, Copenhagen, Paris XI, Aarhus, Michigan, Chicago, Reykjavik, Heriot-Watt, DECM Barcelona, City, Queen Mary. I have given many seminars and advanced courses here in Oxford.

6 Graduate Supervision

I have supervised the following graduate students (for the D.Phil. unless otherwise indicated);

- 1. 1985-87 P. J. Miron
- 2. 1985-88 S. M. Catterall
- 3. 1986-93 S. C. Jenkinson who never finished.
- 4. 1987-90 R. G. Harnish
- 5. MT 1987 & HT 1988 N. Dowrick (while his usual supervisor was away)
- 1986-87 S. J. Perantonis who worked with me in the academic year 86-87 although Dr J. Paton remained his formal supervisor.
- 7. TT 1988 G. Darballay from the Programming Research Group for the project part of his M.Sc. in Computer Science (Dr I. Page was his supervisor in the PRG).
- 8. 1990-94 N. M. Ferguson
- 9. 1990-91 T. Kovacs, Soros visiting student.
- 10. 1991-94 M. G. Harris
- 11. 1992-96 B. Mirza
- 12. 1993-96 S. T. West
- 13. 1993-98 B. Howard
- 14. 1994-98 J. Correia
- 15. 1998-2001 P. Austing
- 16. 1998-03 E. Horn (MSc)
- 17. 1999-02 S. Kawai
- 18. 2000-04 A. Caldeira
- 19. 2003-10 W. Roper
- 20. 2004-08 T. M. Elliott
- 21. 2005-06 D. Ketley who left
- 22. 2005-10 S. Wilshin
- 23. 2006-11 M. Atkin
- 24. 2009-13 G. Giasemidis
- 25. 2011- B. Niedner

7 University Lecturing

I have given the following lecture courses:

- 1985-88 MT: Quantum Field Theory I 16 graduate lectures and 2 problems classes¹.
- 1985-88 HT: Quantum Field Theory II 16 graduate lectures and 2 problems classes¹.
- 1988-89 MT Group Theory² 8 lectures and 2 problems classes¹.
- 1988-89 HT Group Theory² 16 lectures and 1 problems $class^1$.
- 1988-89 I acted as coordinator for the whole graduate course (arranging a further 13 classes in addition to the ones I gave myself and keeping the records).
- 1989–90 TT Further Group Theory 4 lectures.
- 1989–90 TT Revision for Maths paper I in Prelims 3 lectures.
- 1990–91 MT Quantum Field Theory I 16 graduate lectures and 2 problems classes¹.
- 1990–91 HT Quantum Field Theory II 16 graduate lectures and 2 problems classes¹.
- 1990–91 TT Revision for Maths I in Honour Moderations 4 lectures.
- 1991–92 MT Mathematical Physics 18 undergraduate mainstream lectures.
- 1991–92 HT Quantum Gauge Fields 17 graduate lectures and 3 problems classes¹.
- 1992–93 MT Mathematical Physics 18 undergraduate mainstream lectures.
- 1992–93 HT Quantum Gauge Fields 20 graduate lectures and 3 problems classes¹.
- 1993–94 MT Mathematical Physics 18 undergraduate mainstream lectures.
- 1993–94 HT Quantum Gauge Fields 20 graduate lectures and 3 problems classes¹.
- 1994–95 MT Mathematical Physics 15 undergraduate mainstream lectures.
- 1994–95 HT Further Mathematical Methods 4 lectures.
- 1994–95 HT Quantum Electrodynamics 16 graduate lectures and 2 problems classes¹.
- 1995–96 MT Mathematical Physics 15 undergraduate mainstream lectures.
- 1995–96 HT Quantum Electrodynamics 16 graduate lectures and 2 problems classes¹.
- 1998 TT to the present; lecturing duties reduced to 30 per year for the duration of my acting as Part A Coordinator.
- 1997-98 MT+HT Quantum Mechanics 22 undergraduate mainstream lectures.

¹These classes involve setting and marking a set of problems for some 15-20 graduate students and then working through the problems in the actual class. The marking usually takes about 8 hours and the class itself lasts 90 minutes.

²These lectures had a dual role being part of the course for the "Mathematical Physics" optional paper in Finals and also of the graduate course.

- 1997-98 TT Symmetry in Physics 8 undergraduate lectures.
- 1998-99 MT+HT Quantum Mechanics 22 undergraduate mainstream lectures.
- 1998-99 TT Symmetry in Physics 8 undergraduate lectures.
- 1999-2000 MT+HT Quantum Mechanics 22 undergraduate mainstream lectures.
- 2000-01 TT Symmetry in Physics 8 undergraduate lectures.
- 2000-01 MT+HT Quantum Mechanics 22 undergraduate mainstream lectures.
- 2001-02 MT+HT Quantum Mechanics I, New Course 20 undergraduate mainstream lectures.
- 2002-03 MT+HT Quantum Mechanics I, New Course 20 undergraduate mainstream lectures.
- 2006 HT+TT Quantum Mechanics II, New Course 20 undergraduate mainstream lectures.
- 2007 HT+TT Quantum Mechanics II, New Course 20 undergraduate mainstream lectures.
- 2008 HT+TT Quantum Mechanics II, New Course 20 undergraduate mainstream lectures.
- 2009 MT Advanced Quantum Mechanics 12 undergraduate lectures
- $\bullet~2009$ MT/ 10 HT Non-abelian Quantum Field Theory 18 graduate lectures
- 2010 TT Electroweak Sector of the Standard Model 6 graduate lectures
- 2011 HT Advanced Quantum Mechanics 12 undergraduate lectures
- 2011 TT Electroweak Sector of the Standard Model 6 graduate lectures
- 2012 HT Advanced Quantum Mechanics 12 undergraduate lectures
- 2013 TT Fucntions of a Complex Variable 12 undergraduate lectures

All my lecture courses have been very successful and popular with their audiences. In particular my mainstream undergraduate courses on Mathematical Physics and more recently on Quantum Mechanics have been amongst the best received lectures in the undergraduate Physics course in recent times. I was awarded a Teaching Prize in 2008 for the Quantum Mechanics II lecture course.

8 University examining

- Assessor for the "Mathematical Physics" option in the Final Examinations of 1989, 1993 and 1994.
- Moderator for the Physical Sciences Preliminary Examinations in 1994 and 1995.

- Assessor for Part A Theory Option of the Final Examinations of 1998.
- Physics Finals Examiner, 2003
- Assessor for Short Option S18 'Advanced Quantum Mechanics', 2009-12
- Assessor for Short Option S1 'Functions of a Complex Variable', 2013-14
- Internal D.Phil. Examiner for S. Tonkin (1986), B. Green (1986), M. de Groot (1991), M. Stephanov (1994), A. Lewis (2001), Sanjay (2001), B. Florea (2003), F. Bursa (2006).
- External Ph.D Examiner at the University of Durham (1996), Sussex University (1998), the University of Copenhagen (1998, 1999 and 2011), Kings College London (2004), Imperial College (2008), University of Iceland (2010).

9 University administration

- From HT88 to TT89 inclusive I was Lecture List Secretary of the Physics sub-faculty.
- From 1985 to 1997 I was the academic staff member responsible for overseeing the provision of computing services for the sub-department of Theoretical Physics.
- 89-97 Member of the Standing Committee on Physics Computing which advises the PMC on all matters related to computing provision in the Physics Department
- Member of the appointing committee for the University Lectureship in theoretical particle physics which was filled in December 1993.
- Member of the appointing committee for the temporary University Lectureship in experimental particle physics (vice Wark) which was filled in August 1996.
- 97-01 Member of Physics Academic Committee; this is responsible for the delivery of the undergraduate Physics courses.
- 98-01 Part A Coordinator; I was the first holder of this post, responsible for ensuring that all aspects of the lecture course for Part A of Finals are delivered to a high standard.
- HT 00-01 Chair of the Physics Course Review Committee. Our (there were only three of us) remit was to consider all aspects of the undergraduate Physics courses. We consulted widely both within and outside the Oxford Physics Department and concluded that great changes were necessary in almost all aspects of the courses and the way we deliver them. It has transpired that almost all our recommendations have been accepted in their entirety.
- Senior Proctor 2004-5
- Member of the University of Oxford Governance Working Party 2004-6
- Member of the appointing committee for the University Lectureship in theoretical particle physics which was filled in July 2004.
- Associate Chairman of Physics and RAE2008 Coordinator for Physics 2005-10

- Member of the appointing committee for the University Lectureship in theoretical particle physics which was filled in July 2008.
- Departmental representative on the EPSC/Divisional review of the Physics Department in 2008
- Head of Theoretical Physics 2008-10
- Head of the Department of Physics (formerly known as Chairman of Physics) 2010 -