CURRICULUM VITAE — Prof. Terry Wyatt FRS

Born: Watford, England. *Nationality:* British. *Family Status:* Married, with two sons.
Languages: English (mother tongue), French (fluent), German (fluent).

Current Employment

Department of Physics and Astronomy, University of Manchester, UK.
Professor (2004–present), Reader (1999–2004), Lecturer (1996–1999).

Education

University of Oxford, UK: Degree: D.Phil. (1983).
Imperial College, London, UK: Degree: B.Sc. (Ist class hons.), A.R.C.S. (1979).

Fellowships and Prizes

- Elected as Fellow of the Royal Society, FRS (2013).
- Chadwick Medal and Prize of the Institute of Physics (2011).
- PPARC Spokesperson's award: teaching buy-out and postdoc support (2006–2007).
- PPARC Senior Research Fellowship (2003–2006).
- Fermilab "guest scientist": fully funded leave of absence from University of Manchester (2002–2003).
- PPARC Advanced Research Fellowship: Based at CERN with University of Manchester (1989–1996).
- CERN Research Fellowship (1984–1986).
- Governors' Prize for Top First in Physics, Imperial College, London (1979).

Scientific Highlights

ATLAS Experiment at the LHC, CERN: Measurement of the transverse momentum distribution of W and Z bosons using novel techniques. Search for the electroweak production of high-mass resonances decaying to $\tau^+\tau^-$. Search for highly boosted $\tau^+\tau^-$ systems. Test of τ-lepton universality in the decays of W bosons. (2011–present).

DØ Experiment at the Tevatron, Fermilab: Spokesperson[1] of the DØ Collaboration (2004–2007). Primary author of the following papers: measurement of the cross section for Z production; determination of the ratio of the W and Z production cross sections; first observation of ZZ production at a hadron collider; measurement of the cross section for WZ production; measurement of the transverse momentum distribution of Z bosons using a novel technique. Initiated participation of UK groups in DØ.

OPAL Experiment at LEP, CERN: Physics Coordinator[2] of the OPAL experiment (1992–1994). Measurement of the cross section and leptonic branching ratios in $W^+ W^- \to \ell^+\nu\ell^-\overline{\nu}$ at LEP2 and limits on the pair production of sleptons, charginos and charged Higgs bosons. Leader and major contributor to precision tests of the electroweak theory from the combined analysis of the hadronic and leptonic decays of the Z^0 at LEP1.

UA1 Experiment at the SPS $p\overline{p}$ Collider, CERN: Demonstrated that the events originally published by UA1 as evidence for the top quark were, in fact, consistent with b quark background.

TASSO Experiment at the e^+e^- Collider PETRA, DESY: First observation of the $b\overline{b}$ forward-backward charge asymmetry in e^+e^- annihilation (arising from Z^0/γ interference) using novel techniques.

Leadership and Service

- Member of the Editorial Boards of the *European Physical Journal C (EPJC)* (2010–present) and *Progress of Theoretical and Experimental Physics (PTEP)* (2012–present).
- Royal Society Newton International Fellowship Panel (Co-chair: 2025; member 2023–2024).
- Member of the Royal Society International Exchange Panel (2022–present).
- Active referee for the journals *Physical Review Letters* and *Physical Review D* (1992–present), *Journal of High Energy Physics* and *Physics Letters B* (2011–present).
- Regularly consulted by the Royal Society as a referee with regard to potential candidates for election to the fellowship as FRS and ForMemRS (2018–present).
- Established collaboration between the Department of Physics and Astronomy and the Football Data group at (Manchester) City Football Group in data analytics and AI research (2018–present).
- Member of the ATLAS Collaboration Board (2014–2024).
- Member of the ATLAS Collaboration Board Chair's Advisory Panel (2019–2022).

[1] As leader or "Spokesperson" of the 700 physicist-strong DØ Collaboration at the Fermi National Accelerator lab., US, I carried responsibility for and had executive authority over *all* aspects of the work of the DØ Collaboration: scientific, technical, political and financial. Of the more than 2000 physicists who had been members of DØ during its 20-year history, I was only the sixth to be elected to serve as leader. I was the first person working for a non-US institute ever to have served in this role.

[2] As Physics Coordinator I led all aspects of the analysis of the data, the internal review of the obtained scientific results and their dissemination outside the collaboration.

- Member of the ATLAS PhD Thesis Award Selection Panel (2019–2022).
- Member of the UKRI-STFC CERN Advisory Board: produced report for UK government: "Evaluation of the benefits that the UK has derived from CERN" (2018–2021).
- Member of the UKRI Future Leaders Fellowships Panel College (2018–2021).
- Member of the (post-referendum) Royal Society contact group to help advocate continued close relationships between the research communities and funding mechanisms of the UK and the EU (2016–2018).
- Member of a working party of five Fellows of the Royal Society that produced *three reports* on the benefits for research of the UK's membership of the EU (2015–2016).
- Member of 'SC2' committee of the Royal Society (2015–2017). This committee is responsible for recommending candidates for election to the fellowship (FRS and ForMemRS) in Physics and Astronomy.
- Shortlisted for post of Director General (DG) of CERN. I was one of three candidates selected for the final round of interviews. (Decision of CERN Council announced November 2014).
- Member of the CERN Scientific Policy Committee[3] (SPC) (2007–2016).
- Member of the UK Committee on CERN[4] (UKCC) (2007–2017).
- Member of the *8-person Advisory Panel* for the Review of UK Research Councils by Sir Paul Nurse (2015). The report is available *here*.
- Chair of the LHC experiments Committee[5] (LHCC), CERN (2007–2010).
- Member of the CERN Research Board[6] (2007–2010).
- Member of the international review panel for the Helmholtz Alliance "Physics at the Terascale" (2010).
- Sub-committee chair of Fermilab Director's Task Force on the Tevatron Experiments (2005–2006).
- Talks to PPAP (UK: 2005), P5 committee of HEPAP (US: 2006), Fermilab Board of Visitors (2007).
- Spokesperson, DØ Experiment, Fermilab (2004–2007).
- Member of the LHCC (2003–2005).
- Chair, Institutional Board, DØ experiment, Fermilab (2002–2003).
- Membership of International Organizing/Advisory Committees: 34$^{\text{th}}$ International Conference on High Energy Physics (2008); Topical Conference on Hadron Collider Physics (2008; 2007; 2006; 2005; 2004); CERN workshop "Physics at LEP2" (1996). Convener of the Electroweak physics parallel sessions at the 33$^{\text{rd}}$ International Conference on High Energy Physics. Moscow, 2006.
- Physics Coordinator, OPAL Experiment, CERN (1992–1994).

Selected Major Invited Reviews

- *'Conference Review Talk (Experiment)'* at the *'50th Rencontres de Moriond.* (La Thuile, Italy, 2016).
- *'Future Facilities for Higgs Boson Physics'* at the Royal Society Discussion Meeting *'Before, Behind and Beyond the Discovery of the Higgs Boson* (London, 2015).
- *'Future Facilities in High Energy Frontier and Flavour Physics'.*
  Invited plenary review talk at the Open Symposium on European Strategy for Particle Physics. (Krakow, 2012).
- *'Review of Experimental Particle Physics'.* Invited plenary review talk at the 2011 ICFA Seminar[7]. (CERN, 2011).
- *'High-Energy Colliders and the Rise of the Standard Model'.* T.R. Wyatt, Nature Insight **448** Issue 7151 (2007) 274–280.
- *'Review of Electroweak Measurements'.*
  Invited plenary review talk at the 2007 Europhysics Conference on High Energy Physics. (Manchester, 2007).
- *'Electroweak Measurements from Run II at the Tevatron.'*
  Invited plenary review talk at 21$^{\text{st}}$ International Symposium on Lepton and Photon Interactions. (Fermilab, 2003).

Public Understanding of Science

In 1997 I was one of six founder members of the UK 'Particle Physics Masterclass' initiative that has spread throughout the world. I wrote the interactive web site *'Identifying Interesting Particle Physics Events at LEP'* that has been used by tens of thousands of students throughout the world, translated into five other European languages, and subsequently updated with the inclusion of events from the ATLAS experiment at the LHC. I have given invited public lectures at UK national conferences organized by the British Association for the Advancement of Science, the Association of Science Education, and the Institute of Physics. I have given lectures on four separate occasions at the Royal Institution, London. I have written articles for the Times Higher Education Supplement, Symmetry Magazine, Fermilab Today, and the CERN Courier. I have been interviewed many times on the radio and in the press (Germany, Italy, UK, US). I was a member, with John Ellis FRS, of a panel discussion at the Royal Society *'We Have a Discovery: the Future of the Higgs Boson'.*

[3]The SPC is the highest level advisory panel on the long-term scientific strategy for CERN. It advises the CERN Council.

[4]With members from government (BIS), the research council (STFC) and the academic community, the UKCC decides the position to be taken by the UK delegates to the CERN Council and Finance Committee.

[5]The LHCC is the most important of CERN's scientific peer review committees. It oversees all aspects of the work of the LHC experiments: design, construction, installation, commissioning, operation, upgrades, and the presentation of scientific results.

[6]The CERN Research Board reviews the entire scientific activities of CERN. It decides whether or not to approve new experiments and is responsible for deciding on the allocation of beam time and other resources to the experimental collaborations.

[7]The International Committee for Future Accelerators (ICFA) organizes once every three years a week-long 'seminar' to review the status of the field and plans for future accelerators and experimental facilities.