

CURRICULUM VITAE — Professor James Stirling MA PhD CPhys FInstP FRS CBE

I. Personal and career information

Personal Details

Full name	William <u>James</u> STIRLING	
Date of birth	4 th February 1953	
Nationality	British	
Marital status	Married with two adult children	
Addresses	3 Tennis Court Terrace Cambridge CB2 1QX	Department of Physics Cavendish Laboratory J J Thomson Avenue Cambridge CB3 0HE
Telephone	01223 337083 (direct line) 07788 851275 (mobile) 01223 353920 (fax)	
Email	wjs2@cam.ac.uk	

Current and Recent Positions

Cambridge University	Jacksonian Professor of Natural Philosophy	2008 –
	Professorial Fellow, Peterhouse	2008 –
Durham University	Pro-Vice-Chancellor for Research	2005 – 2008
	Professor of Mathematical Sciences and Physics	1992 – 2008
	Director, Institute for Particle Physics Phenomenology	2000 – 2005
	Visiting Professor	2008 –

Academic History, Education

Durham University	Professor (1992–2008), Reader (1990–92), Senior Lecturer (1989–90), Lecturer (1986–89), jointly in the Departments of Physics and Mathematical Sciences
Theory Division, CERN	Staff member (1985–86), Fellow (1983–85)
Cambridge University	Research Fellow, Department of Applied Mathematics and Theoretical Physics and Peterhouse (1981–83)
Univ. Washington, USA	Research Associate (1979–81)
Cambridge University (Peterhouse)	PhD in Elementary Particle Physics, Department of Applied Mathematics and Theoretical Physics (1976–79), Part III Mathematics Tripos (1975–76, Hons. with Distinction). MA Mathematics Tripos (1972–75, First Class with Hons.)
Belfast Royal Academy, NI	1964–1972

Awards and Distinctions

Elected Jacksonian Professor (Cambridge)	2007
CBE for 'services to science'	2006
Elected Fellow of the Royal Society	1999
Humboldt Research Award	1997
SERC / PPARC Senior Fellowship	1993 – 1998
Elected Fellow of the Institute of Physics	1992

Significant Committee Service

Cambridge University Research Policy Committee	2009 –
Cavendish Laboratory Executive Board	2009 –

The Council of the Science and Technology Facilities Council (STFC)	2009 –
The Council of the Royal Society	2007 – 2008
Royal Society Sectional Committee 2 (Chair, 2005)	2004 – 2005
Royal Society Research Fellowships Panel A(i)	2002 – 2005
HEFCE Research Excellence Framework Expert Advisory Group	2009
RAE Sub-Panel 19 (Physics) (Deputy Chair)	2007 – 2008
RAE UoA23 (Physics) Panel	2000 – 2001
Oxford University Department of Physics External Advisory Panel (Chair)	2007 –
Institute of Physics Senior Awards Panel	2006 – 2010
Max-Planck Institute for Physics (Munich), External Review Panel ('Fachbereit')	2006 –
KCETA (Karlsruhe) University International Advisory Board	2008 –
Helmholtz Alliance International Advisory Board	2007 –
RCUK Academic Fellowships Panel	2004, 2006
PPARC Dark Matter Strategy Panel (Chair)	2005
PPARC Science Committee (Chair)	2001 – 2003
PPARC Education and Training Committee	1998 – 2001
PPARC Particle Physics Committee	1987– 90, 1998 – 2001
Institute of Physics HEPP Group	2007 –
Board of Governors, Royal Grammar School, Newcastle	1996 – 2005

(Not listed: numerous University, international conference advisory, and subject review committees)

II. Research

My **research area** is theoretical elementary particle physics, with a particular emphasis on 'phenomenology', the confrontation of theoretical predictions with experimental results, and the use of experimental data to shed light on the fundamental theory of particles and forces. As such, I work closely with experimentalists at many of the world's leading particle physics laboratories, for example CERN, DESY, and Fermilab. I have been involved in physics studies for all of the present and future high-energy colliders, most recently the Large Hadron Collider (LHC). Although I have worked on many aspects of Standard Model physics and more fundamental theories of which the Standard Model could form a part, my particular area of expertise is in 'Quantum Chromodynamics' (QCD), the Yang-Mills gauge field theory of the strong interactions and one of the basic components of the Standard Model. I have worked on many areas of QCD theory and phenomenology, including calculations of high-order perturbative corrections and the extraction from data of parton distribution functions, the functions that encode how the momentum of a fast-moving proton is shared between its fundamental quark and gluon constituents. I am part of the world-renowned 'MRST/MSTW' collaboration that produces the most widely used parton distributions in high-energy collider phenomenology; our publications are among the most highly cited in the physical sciences.

I have more than 300 **publications** in journals and conference proceedings, with a citations per published paper average of 64, and including 3 '*renowned*' papers (> 500 citations), 15 '*famous*' papers (250 – 499 citations), 22 '*very-well-known*' papers (100 – 249 citations), and 34 '*well-known*' papers (50 – 99 citations) (source: SLAC-SPIRES High-Energy Physics Literature Database, October 2010)

Major **Research Grants** include:

PPARC/STFC: £3,039,938 (2008–13) 'Investigations in Theoretical Particle Physics' rolling grant (co-investigator, joint with DAMTP); £881,136 (2006–11) 'An Elementary Particle Physics Database' rolling grant (co-investigator until 2008); £8,129,370 (2000–10) Institute for Particle Physics Phenomenology grant (principal investigator until 2005); £92,685 (2005–08) 'A Beginner's Guide to the Universe', National Awards Scheme for Projects in Public Understanding of Science and Technology (principal investigator). *European Commission*: 158,000 euros (1998–2002) 'Quantum Chromodynamics and the Deep Structure of Elementary Particles', Training and Mobility of Researchers Network Programme (network coordinator); total budget = 1.5M euros.