

# Curriculum Vitae: Carlos S. Frenk

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## Personal Details:

**Name:** Carlos S. Frenk                      **Nationality:** Mexican & British                      **Date of Birth:** 27/Oct/51

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## Academic Record:

Dates	Degree	Place
1977-1981	PhD (Astronomy)	University of Cambridge
1976-1977	Maths Tripos Part III (Honours)	University of Cambridge
1972-1976	BSc Theor. Phys. (Top marks in year)	University of Mexico

## Employment:

Dates	Position	Institution
2001-present	Director, Institute Comp. Cosmology	University of Durham
2001-present	Ogden Professor of Fund. Physics	University of Durham
1985-present	Lecturer, Reader (1991), Professor (1993)	University of Durham
1983-1985	Postdoctoral Research Fellow	University of Sussex
1983-1985	Assistant Research Physicist	University of California, Sta. Barbara
1981-1983	Postdoctoral Research Fellow	University of California, Berkeley

## Fellowships, awards and distinctions:

2010	George Darwin prize, Royal Astronomical Society
2007	Daniel Chalonge medal, Observatoire de Paris
2006	Royal Society Wolfson Research Merit award
2004	Elected Fellow of the Royal Society
2004-	Ranked 2 <sup>th</sup> most cited author in Space Sciences in the world in the past 10 years.
2002	Ranked 5 <sup>th</sup> most cited physical scientist in UK since 1980
2000-2001	Leverhulme Research Fellowship
2000	Ranked 16 <sup>th</sup> most cited physical scientist in the UK during the 1990s
1996-1999	PPARC Senior Fellowship
1992-1993	Sir Derman Christopherson Fellowship, University of Durham
1991-1992	Nuffield Foundation Science Research Fellowship
1985	SERC Advanced Fellowship (declined)
1976-1979	British Council Fellowship
1976	<i>Gabino Barreda</i> medal for first place in Theor. Phys. degree

## Main SERC/PPARC Committees:

Year	Description
2008	Ad hoc STFC Advisory Panel (Chairman)
1996-1999	Astronomy Committee
1994-1999	Board of the Issac Newton Group of Telescopes (Chairman 1997-99)
1997	First and Planck instrument review panel (Chairman)
1996-1997	Intercouncil High Performance Comp. management cttee.

1996-1998	Joint Astr. and Part. Phys. supercomputing panel
1991-2001	UK Dark Matter Experiment review panels
1991-1994	Astronomy and Astrophysics Committee
1991-1994	Theory grants panel
1990-1991	Education, Training and Fellowships Panel

### Main Royal Society Committees:

Year	Description
2009-	Newton International ellowships (Chair)
2008-	Education Committee
2006-	Sectional Committees 5 and 2 (recommends new Fellows)
2004-2007	Panel Ai (recommends new University Research Fellows)
2004	Mullard Prize

### Foreign Committees:

Year	Description
2004-	Deutsche Forschungsgemeinschaft Review Panel (Formation and Evolution of Black Holes, Galaxies and their Environments)
2003-	Canada Research Chairs program: College of Reviewers

### Other:

Year	Description
2005-2006	President of North East Association for Science Education
2005-	Issac Newton Institute of Mathematics, Scientific Steering Committee

### Teaching

- Various undergraduate and postgraduate courses in Physics and Astrophysics

### PhD students

- 24 students supervised since 1985; all successfully completed, and all but two still in astronomy
- 4 current students

### Postdoctoral assistants

- 31 postdoctoral researchers supervised since 1985, all still employed in Astronomy, including several in permanent or long term posts.
- 4 current postdocs

### Conferences Organized (since 2000)

Year	Conference
2000	Galaxy Formation/The intergalactic medium – EU TMR Network Meeting (Durham)
2001	New Astronomy (Durham)
2003	Dark matter and dark energy – Royal Society Discussion Meeting (London)
2003	Galaxy formation (Cozumel, Mexico), SOC chair

**Membership of Scientific Organizing Committees (since 2000)**

<b>Year</b>	<b>Conference</b>
2000	IDM2000 (York, UK)
2002	Galaxy Formation and Evolution (Cozumel, Mexico; Chair of SOC)
2003	Multi-wavelength Astronomy (Mykonos, Greece)
2004	The future of cosmology with galaxy clusters (Kona, Hawaii)
2006	Bernard@60 (Valencia)
2006	The role of black holes in galaxy formation (Potsdam)
2007	Dark Galaxies and Lost Baryons – IAU symp 244 (Cardiff)
2007	From IRAS to Herschel/Planck: cosmology with IR and sub-mm surveys (London)
2008	The Impact of Simulations in Cosmology and Galaxy Formation – NOVICOSMO 2008 (Trieste)
2008	Leopoldina dark energy conference (Munich)
2008	Galactic Structure and the Structure of Galaxies (Ensenada, Mexico)

**Research grants**

<b>Dates</b>	<b>Title</b>	<b>Awarding Body</b>	<b>Amount (£)</b>
1984-86	The evolution of large-scale structure	NATO	6,700
1987-90	The structure, dynamics and evolution of galaxy clusters	SERC	48,727
1987-90	Cosmological N-body simulations	SERC	46,763
1987-89	Cosmological N-body simulations	Nuffield Foundation	1,000
1987	The epoch of galaxy formation	NATO	17,000
1987-89	Pregalactic evolution	NATO	4,000
1988-91	Pregalactic evolution	SERC	55,218
1990	Observational Tests of Inflation	NATO	20,000
1990	Supercomputer simulations of galaxy formation	Durham University	4,000
1991-94	Real and simulated galaxy clusters	SERC	60,448
1991	The origin of cosmic structure	Durham University	5,600
1991-92	Science Research Fellowship	Nuffield Foundation	20,934
1992-95	Computer simulations in Cosmology	SERC	24,018
1992-94	Simulations of galaxy clusters	NATO	5,000
1992-96	Extragalactic astronomy and cosmology at Durham	SERC	555,920
1993-94	Astrophysical applications of GRAPE	SERC	65,188
1993-95	Network for research in theoretical cosmology	EC	194,000 ecu
1993-96	Cosmology at Durham	EC	100,000 ecu
1994-97	Analytic and numerical studies of galaxy formation	EC	100,000 ecu
1994-97	Astrophysical applications of HARP	SERC	87,883
1994-98	Extragalactic astronomy and cosmology at Durham	PPARC	950,000
1994-96	The Virgo consortium: cosmological simulations using T3D	EPSRC	74,000
1995-98	Visiting Fellows in Extragalactic Astronomy & Cosmology	PPARC	13,400
1996-2000	Extragalactic astronomy and cosmology at Durham	PPARC	1,011,895
1996-2000	Network for research in Galaxy Formation	EC	245,890
1996	UK Cosmology Supercomputer Centre	HEFCE JREI	545,890
1996-99	Senior Fellowship	PPARC	132,453
1997-98	The Virgo consortium	PPARC	315,000
1997-99	TMR Fellowship	EC	64,000
1997-2000	Virgo Project: Cosmological Supercomputer Simulations	PPARC	15,681
1997	Simulations of Galaxy Clusters	PPARC	3,750
1997-99	Testing galaxy formation models	British Council	2,900
1998	UK Fundamental Physics Consortium	HEFCE JREI	1,945,000
1998-2001	Visiting Fellows in Extragalactic Astronomy & Cosmology	PPARC	18,982
1998-2002	Extragalactic astronomy and cosmology at Durham	PPARC	1,357,332
1999	The formation and evolution of galaxies	PPARC	10,722
2000-2001	Virgo: cosmological supercomputer simulats. (programmer)	PPARC	19787

2000-2001	Research Fellowship	Leverhulme Trust	16,440
2000-2001	The Virgo consortium: simulating the Universe	HEFCE JREI	652, 988
2000-2003	Virgo : cosmological supercomputer simulats. (operations)	PPARC	12,768
2000-2004	Network for research in Intergal. Medium	EC	250,140 euro
2000-2004	Extragalactic astronomy and cosmology at Durham	PPARC	1,318,508
2001-2002	Support for computer system management	PPARC	125,558
2001-2004	Visiting Fellows Extragal. Astr. Cosmo	PPARC	27,715
2001-2004	The Durham Centre for Fundamental Physics	JIF	2,928,000
2002-2005	From Fund. Phys. to gals. and Universe (Nat. PUS award)	PPARC	80,000
2002-2006	Extragalactic astronomy and cosmology at Durham	PPARC	1,184,805
2002-2006	Support for computer system management	PPARC	487,494
2004-2007	Lenac network (ALFA programme)	EC	631,711
2004-2007	Virgo: cosmological supercomputer simulations	PPARC	75,000
2004-2007	Simulating the Universe	HEFCE (SRIF-2)	750,000
2004-2008	The De Laszlo Foundation Award		20,000
2005-2008	The Virtual Universe (VirtU)	PPARC	153,617
2005-2008	A beginner's guide to the Universe	PPARC	92,685
2005-2008	Virgo: supercomputer management support	PPARC	223,657
2005-2008	Virgo: operational costs	PPARC	17,354
2005-2008	Visiting Fellows at Durham	PPARC	47,414
2005-2008	Visiting Professorship	Leverhulme	36,750
2005-2010	Extragalactic astronomy and cosmology at Durham	PPARC	2,092,296
2006-2008	Support for computer system management	PPARC	343,823
2006-2008	PATT Travel for Extragalactic Astronomy	PPARC	49,961
2006-2010	Marie Curie Host Fellowships	EC	723,135
2006-2011	Wolfson Merit Award	Royal Society	200,000
2008-2011	Visiting Fellows at Durham	STFC	73,282
2008-2013	The Formation of Cosmic Structure (rolling grant)	STFC	3,105,567
2009-2012	High Performance Computing: Virgo	STFC	1,684,000
<b>Total</b>	(Not corrected for inflation)		23,106,613

### Invited lectures at major international conferences

Date	Conference	Lecture/review
1984	Evoln. Struc. in Univ., Sta. Barbara, Ca.	Cosmological N-body Simulations
1984	3 <sup>d</sup> Anglo-Spanish Sch. Astr., Granada	Dark matter in the Universe
1984	Hidden matter in the Univ. (RAS), London	Is the dark matter non-baryonic?
1985	The Early Universe, RAL	The large-scale structure of the Universe
1985	The material content of Univ., RS, London	Galaxy clustering
1986	Cosm. and gal. form. Copenhagen	Numerical simulations of clustering
1986	Nearly Normal Galaxies, Sta Cruz, Ca	Gal. halos and the generation of ang. mom.
1986	Particle Phys. and Cosm., Berkeley, Ca	The formation of cosmic structure
1987	Streaming motions in the local Univ., RGO	Theor. implications of streaming motions,
1987	Cosm. and Phys. Early Univ., RS London	Large-scale structure
1987	The Early Universe, Cambridge	Dark matter and galaxy formation
1987	The Struc. Univ. IAU Symp 130, Hungary	N-body simulations of galaxy formation
1988	Cosm.- particle phys, Uppsala, Sweden	Galaxy formation
1988	Particle Astrophysics, Berkeley, Ca.	Galaxy clusters
1990	The Birth of Univ. Nobel Symp, Sweden	Models of large scale structure
1990	Astr. & Plan. Sci. Board, SERC	Large scale structure and dark matter
1990	Traces primordial struc. in Univ., Ringberg	Real and imaginary clusters
1990	Observ. tests of inflation, Durham	The clustering of IRAS galaxies
1990	Texas/ESO/CERN meeting, Brighton	The cold dark matter model: does it work?
1991	1 <sup>st</sup> Intern. Sch. Astr. Erice	Models of large-scale structure

1992	HEPP 92, Lancaster	The Universe: what is the matter
1992	2 <sup>nd</sup> Intern. School Astr. Erice	Dark Matter and origin of large-scale struct.
1992	The CMB and LSS after COBE, Stockholm	Implications for models of struct. formation
1993	The background radn (RAS), London	COBE and the amplitude of mass fluctns.
1993	National Astr. Meeting, Leicester	The Baryon Catastrophe
1993	Neutrino Astronomy, RS London	Neutrinos and the missing mass problem
1993	Num. sims. in Astrophys. Mexico City	Large-scale structure of the Universe
1993	Intern. sch. on dark matter, Valencia	Dark matter and structure formation
1993	The gal. lum. fn., (RAS) London	The origin of the galaxy luminosity function
1994	New horizons in part-astrophys., Abingdon	The mean density of the Universe
1994	Recontres de Moriond	Galaxy clusters and cosmology
1994	3 <sup>d</sup> Intern. Sch. Astr. Erice	Dark matter and origin of large-scale struc.
1994	Trends in Astrophysics Stockholm	Large-scale structure: a review
1994	The mass and comp. of gal. clus., Munich	Unresolved problems in cluster modelling
1994	Gal. form. ev. 17 <sup>th</sup> Texas Symp, Munich	Galaxy formation
1995	New light on gal.ev. IAU 171, Heidelberg	Galaxy formation and evolution
1995	Fifth Summer School Vatican Obs, Rome	Lectures in Cosmology
1995	The universe at high $z$ , Edinburgh	Modelling galaxy evolution
1995	Mapping, Measuring the Univ., Valencia	N-body simulations and galaxy formation
1996	National Astronomy Meeting, Liverpool	Numerical simulations of cosmic structure
1996	National Astronomy Meeting, Liverpool	$\Omega$ from clusters
1996	Critical Dialogues, Princeton	Large-scale structure: the devil's advocate view
1996	HST/High-redshift Universe, Cambridge	Galaxy formation and evol: outstanding problems
1996	Dark & visible matter in galaxies, Sesto	Numerical and analytic modelling of galaxy evolution
1996	Formation & evoln. of galaxies, Argentina	Galaxy formation and large-scale structure
1996	Identification of dark matter, Sheffield	Structure formation and dark matter
1996	Emergence of structure in Univ., Vatican	Models of galaxy formation and evolution
1997	Winter conference on Astrophysics, Aspen	Large-scale structure and galaxy clusters
1997	Particle phys. & early univ., Cambridge	Astronomical Evidence for Dark Matter
1997	IAU Symposium 186, Kyoto	Overview: theory
1997	The Young Universe, Rome	Theory and Phenomenology of Galaxy Formation
1997	4th Intl. School of Astrophysics, Erice	Galaxy formation and large-scale structure
1997	The non-sleeping Universe, Porto	Constraints on the cosm. parameters - Autumn 1997
1998	Lecture Series, CERN, Geneva	Cosmic large-scale structure, dark matter, origin of gals.
1998	Large-scale structure, Royal Society	Summary
1998	Evolution of galaxies, Aspen	Semi-analytic models of galaxy formation
1998	The birth of galaxies, Blois	Semi-analytic modelling of galaxy formation and evoln.
1998	Summer School in Cosmology, Tarragona	Prospects in Cosmology
1998	Evoln. of large-scale structure, Garching	Summary
1998	When/how bulges form and evolve? STSCi,	Theoretical expectations
1998	The Universe at $2 < z < 5$ , Maryland	Forming galaxies: theory
1998	Academic Exchange Program, Durham, NC	The dark and bright sides of the Universe
1999	Structure and dynamics of galaxies, Venice	Ab initio modelling of galaxy formation
1999	Satellite galaxies, Ringberg, Germany	The faint end of the luminosity function
1999	Galaxy morphology, Paris	The astrophysics of galaxy morphology
1999	Cosmic flows, Victoria, Canada	Expectations from numerical simulations
2000	Fundamental Phys. in Space, CERN Geneva	What to expect from NGST
2000	Galaxy disks & disk galaxies, Rome	The epoch of disk formation
2000	New cosm. data, IAU Symp 201, Manchester	The distr. of dark matter & galaxies
2000	Computational Cosm., Victoria, Canada	Simulating galaxy formation & clustering
2000	IDM2000, York	The cold dark matter model
2001	Matter in the Universe, Bern, Switz.	Theory of structure formation
2001	Oort Meeting on Gal. Form., Leiden, Holland	Critical tests of structure formation models
2001	Frontiers of the Universe, Blois, France	Gal. clustering at high and low $z$
2001	IAU Symp 208 Astrophys Supercomp, Tokyo	Connecting cosmological simulations to the real world

2001	Comput. Fluid Dyn. in Astrophys, Leicester	Simulations of the cosmic dark matter, gas and gals
2001	Europhys. Conf. on Comput. Phys., Aachen	Cosmic Architecture
2001	A New Era in Cosmology, Durham	The nature of Scuba galaxies
2001	IAU LA Reg. meeting, Cordoba, Argentina	The origin of cosmic structure
2001	Science from la Palma, La Palma	Highlights in Cosmology
2001	Roy Soc Disc meeting, London	Simulating the formation of cosmic structure
2001	Particle Physics Theory meeting, Durham	The origin of structure in the universe
2002	The formation and ev of gals, Cozumel, Mexico	From recombination to the present
2002	Making Light of Gravity (M. Rees 60 <sup>th</sup> ), Cambr.	Simulations of galaxy formation
2002	Identification of dark matter, York	Summary of large-scale structure
2002	9th Intl. School of Astrophysics, Palermo	The cold dark matter paradigm
2002	Last frontiers in particle physics, Madrid	Dark matter
2002	The Emergence of Cosmic Structure, Maryland	Dark matter and galaxy formation
2003	CIAR Cosmology/Gravity, Montreal	Results from the 2dF galaxy redshift survey
2003	Particle Physics 2003 (IOP), Durham	Dark matter, dark energy and cosmic structure
2003	IAU Symposium 220 "Dark Matter in Galaxies"	
	XXV IAU General Assembly, Sydney	Groups and clusters in the 2dF redshift survey
2003	Kavli-Cerca meeting on the future of cosmology, Cleveland	Dark matter: is anything ruled out?
2003	Dark Matter and Dark Energy, Bonn	Dark matter candidates
2004	The quest for concordance cosm. Cambridge	Confronting galaxy formation theory with observations
2004	Star Formation Processes, Aspen	The galaxy luminosity function
2004	2nd Mex. Meet. Math & Exper. Phys., Mexico	The origin of cosmic structure
2004	XXII Texas Symp Rel Astrophys., Stanford	The 2dF survey and cosmological simulations
2005	Future cosm clusters of gals, Kona, Hawaii	Clusters as knots of the cosmic web
2005	CIAR Cosmology & Gravity Program, Quebec	Cosmic wiggles
2005	DEISA symp on supercomputing appl., Paris	Computing the Universe
2005	2 <sup>nd</sup> Chinese School Extragal. Astr., Tianjin	4 lectures on galaxy clusters
2005	Conference on computational cosmology, Trieste	The effect of feedback on galaxy formation
2005	Guillermo Haro 2005 Adv School, Puebla	2 lectures on cosmology
2005	SUSY05, Durham	The emergence of a cosm paradigm
2005	Space Science School, Alpbach	The standard model of cosmology
2005	Open Questions in Cosmology, Garching	Is the IMF universal?
2005	Crafoord days, Lund	Testing cosmological theory against observations
2005	The structure of the Universe and the future of Cosmology, Stockholm	The gal form & large-scale structure connection
2005	AGN & gal evolution, Castel Gandolfo	Simulations of galaxy formation
2005	A European Supercomputer, Barcelona	Computing the Universe
2006	CIAR Cosmology & Gravity Program, Banff	Baryon Acoustic Oscillations
2006	IX Mexican Sch Particles and Fields	Our surprising universe
2006	IAG-Lenac XIII Adv. Sch. of Astr., Iguazu,	2 lectures
2006	Bernard's cosmic stories, Valencia	Simulating the universe
2006	DPG Sch. "Dark Matter & Dark Energy", Bonn	Formation of Cosmic Structure
2006	IAU JD15, Prague	CDM predictions for Spitzer
2006	Identification of dark matter, Rhodes	Cosmological parameters
2006	The role of black holes in gal form, Potsdam	Rise & fall of BH populatin
2006	Physics of the early universe (Paris)	Large-scale structure
2006	Roy Astr Soc (London)	The Virgo consortium
2007	IAU symposium 244 (Cardiff)	A baryon inventory
2007	PASCOS07 (London)	The cosmic large-scale structure
2007	From IRAS to Herschel/Planck (London)	Galaxy formation in the infrared
2007	Dark Matter, Dark Energy, CMB & LSS (Paris)	Testing CDM
2007	From Planets to Dark Energy (Manchester)	Galaxy formation
2008	Surveys & sims of large-scale structure (Berkeley)	From CDM to $\Lambda$ CDM
2008	Dark matter on small scales (Paris)	Dark matter on small scales: N-body simulations

2008	Galactic structure & the structure of gals	$\Lambda$ CDM predictions for galaxy morphology (Ensenda)
2008	National astronomy meeting (Belfast)	Dark matter on small scales
2008	Galaxy properties, Aspen	Galaxy mergers
2008	The standard model of the universe, Paris	The small-scale structure of the Universe
2008	Putting Gravity to Work, Cambridge	The density structure of dark matter halos
2008	Identification of dark matter 2008, Stockholm	A blueprint for detecting dark matter in the Galactic halo
2008	Back to the Galaxy (II), Sta Barbara	Dark matter annihilation radiation from the Galactic halo
2008	The Impact of Simulations in Cosmology and Galaxy Formation, Trieste	Dark matter halos
2008	Building the Milky Way, Santa Barbara	Cosmology on Small Scales
2009	Cosmology on the beach, Baja California	3 lectures on the large-scale structure of the Universe
2009	ENTAPP Dark Matter 2009	The structure of galactic dark matter halos
2009	Obs signatures of black hole mergers, STScI, Baltimore	Black holes in the LCDM cosmology
2009	CIFAR meeting, Mt Temblant, Canada	The structure of dark matter halos
2009	Dark matter detection, Cleveland, USA	(Mostly) dark matter halos
2009	Origins Symposium, Phoenix, USA	Dark matter rules
2009	DEISA Prace Symp, Amsterdam	Cosmological simulations
2009	Unity of the Universe, Portsmouth	The satellites of the MW
2009	TeV Particle Astrophysics, Stanford, USA	Cold dark matter detection
2009	13th Paris Colloquium, Paris	Cosmology on small scales
2009	The Milky Way and the Local Group, Heidelberg	Early universe reionisation
2009	DPG Astroparticle Physics, Bonn	The structure of the universe
2009	Universnet, Barcelona	Cosmology on small and large scales
2009	Galilei Xu Guangqi Sym., Shanghai	The small scale structure of the Universe

### Named lectures

Date	Event	Lecture
2003	The Hoyle Memorial lecture, Leeds	The Big Bang
2006	The Elizabeth Spreadbury Lecture, UCL, London	Building the universe
2006	The Withrow Lecture of the Roy Astr Soc, London	Our implausible universe
2007	The O'Neill Lecture, Glasgow	Our implausible universe
2008	The 2008 Dundee Christmas Lecture, Dundee	Our implausible universe
2009	The Cosmocaixa Lecture, Barcelona	Simulant l'univers
2009		The great cosmic gamble: making galaxies from nothing

### Recent research seminars

During the past few years I have given research colloquia (to both astronomy and physics departments) at: Observatoire de Paris, Meudon; MRAO, Cambridge; Ann Arbor, Michigan; Mexico City; IoA, Cambridge; Manchester University, ROE; Max-Planck Institut fur Astrophysik, Munich; Liverpool John Moore University, University College, London; Imperial College, London; Oxford University; University of Ohio; University of Basel; Paul Scherrer Institute in Zurich; Universidad Complutense, Madrid; Nottingham University; Lancaster University, University of Helsinki, Finland; Barcelona; University of Utrecht (2006), Holland; University of Birmingham (2006); MPA Garching (2006); Southampton University (2006); Caltech (2006); SISSA (Trieste, 2006); Cambridge University (2006); Paris Observatory (2006); Oxford University (2006), Edinburgh University (2006); Groningen University (2006); Bonn University (2006); Heidelberg University (2007); Paris University (2008).

### Public Understanding of Science

#### Public lectures

Date	Event	Lecture
1995	Durham Festival of Science	Simplifying our complex Universe
1995	Brit. Assoc. Fest. Science (Newcastle)	The simplicity of our complex Universe

1995 -	Various Astronomical Societies	various lectures
1996	University of Cordoba	El lado oscuro del universo
1998	Dillons (Durham)	The First Dillons Science Lecture
1998	Duke University, N. Carolina, USA	First Duke-Durham Lecture
2000	Universidad Complutense	Public debate on cosmology in 2000
2003	Gifted and talented children, Newcastle	Cosmic origins
2003	Royal Albert Hall, London	The first few seconds
2003	The Hoyle Memorial lecture, Leeds	The Big Bang
2004	The Edinburgh Internat. Science Festival	The dark side of the Universe
2004	Mathematics and culture in Europe, Bologna	The origin of galaxies
2005	Einstein's year – "Universum", Mexico City	Cosmic Architecture
2005	Cafe Scientifique, Newcastle	Cosmology
2005	Science Museum, Valencia	Cosmic origins
2005	Durham Alumni Association, London	Cosmic architecture
2006	Association of Science Educators, Durham	Cosmic evolution
2006	The Elizabeth Spreadbury Lecture, UCL, London	Building a universe
2006	FMF Symposium, Groningen	Our implausible universe
2006	The Withrow Lecture of the Royal Astronomical Society, Liverpool	Our implausible universe
2007	Newcastle Science Festival	Our implausible universe
2007	New Generation Science meeting, Durham	Our implausible universe
2007	The 59 club (of independent schools), Newcastle	Our universe
2008	The O'Neill Lecture, Glasgow	Cosmic architecture
2008	The Centre for Life, Newcastle	The origin of cosmic structure
2008	Cafe Scientifique, Stockton	Cosmic puzzles
2008	Nibiru Astronomical Society, Mexico city	Our implausible universe
2008	Dundee Christmas Lecture, Dundee	Our implausible Universe
2009	Barcelona	Simulating the Universe
2009	Cleveland Museum of Natural History	The great cosmic gamble: making galaxies from nothing

### *Other activities*

<b>Date</b>	<b>Event</b>	<b>Lecture</b>
2008	The Huxley Prize – adjudicator	Eaton College

### **Media**

<b>Date</b>	<b>Organization</b>	<b>Programme/Lecture</b>
1986	Australian Television	Beyond 2000: the big questions
1988	BBC Radio 3	The twilight of the gravitino
1988	Sveriges Riksradio AB, Stockholm	The dark side of the Universe
1990	Japan Broadcasting Corp.	The cosmos – NHK-TV
1991	BBC 2 (Horizon)	Of Big Bangs, stick men and galactic holes
1991	TVE (Spanish Television)	El Espejo
1992-	Various newspapers and radio stations	Interviews
1994	BBC Radio	Science on 3
1994	BBC 2 TV (Horizon)	Whispers of Creation
1994	Channel 4 TV (Equinox)	The Rubber Universe
1994	BBC 2	Newsnight
1995	Tyne-Tees News – ITV	(Cosmology)
1997	BBC News	Galaxy formation
1997	Tyne-Tees News – ITV	Galaxy formation
1997	The Today Programme – BBC radio 4	Galaxy formation
1997	BBC 2	Stephen Hawking's Universe
1998	Channel 5 News	First on five

1999	Channel 6 – French TV	Interview
1999	UK Today (TV: Foreign & Common. Off.)	Interview
2000	Tele-Madrid News	Interview
2000	The Today Programme – BBC radio 4	Interview
2000	BBC 2	Theories of everything
2001	BBC Radio 4	Try This at Home
2001	BBC Radio 4	Material World
2002	BBC 2	Frontiers of Science
2002	BBC 2	Dark matter
2002	The Today Programme BBC radio 4 (10/Jan)	Cosmology
2002	The Today Programme BBC radio 4 (21/Feb)	Supercomputers
2003	Horizon BBC2 (Jan)	The Hubble Space Telescope
2003	Sky at Night BBC2 (March)	Special guest
2003	Below the superficial BBC radio 4	Dark matter
2003	Sky at Night BBC2 (October)	Special guest
2004	Sky at Night BBC2 (April)	Digging for dark matter
2004	Channel 4	”What we still don’t know”
2005	Channel 4 News	Baryon wiggles
2005	BBC 1 News	The Millennium Simulation
2005	BBC 2 Newsnight	The Millennium Simulation
2006	BBC 2 Horizon	Most of our universe is missing
2006	National Geographic TV	The origin of the universe
2006	Discovery Channel	Black holes
2007	Sky at Night BBC2 (October)	Colliding galaxies
2007	BBC 2	Cosmos
2008	The Today Programme BBC radio 4 (11/Jan)	Cosmological simulations
2008	Channel 4 News (5/Sept)	Dark matter
2008	Various radio interviews (6/Nov)	Radiation from dark matter
2009	BTV Barcelona (5/Feb)	Interview
2009	BBC Radio 3 Frontiers	Dark Matter
2009	Channel 4	Engineering the Universe
2010	Discovery Channel	Galaxy formation
2010	BBC1 (Inside out)	The future of the Milky Way
2010	BBC Horizon	The standard model of cosmology

**Refereed Publications: 241**

**Non-refereed Publications: 48      Books edited: 3**

(full list on <http://star-www.dur.ac.uk/csf/homepage/PublicationList.html>)

### Citation statistics (Feb/10)

- Total number of citations: 38857
- Since 2004: 2<sup>th</sup> or 3<sup>d</sup> most cited in Space Sciences in the world in previous 10 years
- 5<sup>th</sup> most cited physical scientist in UK during 1980-2000
- Number of papers with more than 1000 citations: 3
- Number of papers with more than 500 citations: 18
- Number of papers with more than 100 citations: 93
- H-index: 96
- Most cited papers: NFW (1997): [3017]; NFW (1996): [2210]; DEFW (1985): [1382]