

**Curriculum Vitae :** Gerard F. Gilmore FInstP, FRS, MAE, Hon FRSNZ, HonFRASNZ

**Higher Degrees:** Ph.D. Astrophysics, University of Canterbury, New Zealand  
MA, Sc.D. Cambridge University, UK

**Academic Positions held:**

1979—1984 Senior Research Fellow, Royal Observatory Edinburgh, UK  
1982--1985 Visiting Associate, Mt Wilson and Las Campanas Observatories, Ca, USA  
1984--1989 SERC Advanced Research Fellow, Institute of Astronomy, Cambridge  
1984--1987 Research Fellow, Clare Hall, Cambridge  
1987--1991 The Royal Society Smithson Fellow,  
King's College & Institute of Astronomy, Cambridge University  
1989--1991 Senior Assistant in Research, Institute of Astronomy, Cambridge  
1991--1995 Assistant Director of Research, Institute of Astronomy, Cambridge  
1995 -- 2000 Reader in Astrophysics, Cambridge University  
2000 -- Professor of Experimental Philosophy, Cambridge University  
1999 -- 2007 Deputy Director, Institute of Astronomy, Cambridge  
2010 -- Chair, Faculty Board of Physics & Chemistry  
2010 -- Chair, Degree Committee of Physics and Chemistry  
2010 -- Chair, Senior Academic Promotions Committee, Physics & Chemistry

**Publications:** over 820 articles, over 45,000 citations @06/2019, h-index=102

**Awards:**

Samuel Locker Award (UK)  
John Couch Adams Astronomer, Cambridge  
Smithson Fellow, The Royal Society London & King's College, Cambridge  
Fellow, Academia Europaea  
Fellow, Institute of Physics  
Research Fellow, Clare Hall, Cambridge, and King's College, Cambridge  
Neils Bohr Lecturer, NORDITA  
Argelander Lecturer, Bonn  
Einstein year UNESCO international lecturer,  
Bernard Lovell Lecturer  
Fellow of the Royal Society (2013)  
Chalonge Medal (2013)  
Hon Fellow, Royal Astronomical Society NZ (2016)  
De Vega medal (2015)  
Royal Aeronautical Society Leslie Bedford Lecturer (2017)  
Sir Arthur Clarke Centenary Award (Gaia UK team) (2017)  
Hon Fellow Royal Society of New Zealand (2017)

Web pages for PI projects

<http://www.ast.cam.ac.uk/~gil>

<https://gaia.ac.uk>

<http://www.gaia-eso.eu>

<http://www.astro-opticon.org>

**Senior international visiting committees:**

France AERES programme (2008, 2009, 2010); ANR jury (2011-2012, 2015, 2017): Paris/Saclay; Strasbourg; Toulouse: Comité d'Evaluation, CNRS Strasbourg ; International Member, Conseil Scientifique, Centre d'Analyse des Images, Institut National des Sciences de l'Univers, France.

Netherlands: International Scientific Advisory Committee, NOVA Research Committee (Netherlands). International Member, Netherlands Lorentz Centre Advisory Board

Germany: Member, Scientific Advisory Board, Ministerium für Wissenschaft, Baden-Württemberg;

Italy: INAF/INFN PRIN Strategy Review : Torino

Austria: University of Vienna (2010, Chair, Visiting Committee)

US Standing Member, NASA/NSF Review Panel for the US National Virtual Observatory Initiative; Member, Gemini Observatories Senior Management Review Board

Spain: Visiting Committee: Spanish National Astronomy Centre and Spanish National Large Telescope Project (IAC, Tenerife).

New Zealand International Member, New Zealand Universities Performance-Based Review Fund (2005, 08, 12, 18)

Denmark. Member, Danish Large Facilities Fund Strategy Review Panel (2007, 2009, 2011); Aarhus University Science and Technology Senior Advisory Board (2013 on)

Canada Large Facilities Grant Funding Review Board

### **Professorial and appointment boards:**

U. Victoria, Canada(2007); Aarhus, Denmark (2006, 2010); TIFR India (2009); U. Barcelona, Spain (2008,2009); ETH Zurich, Switz., (2009); U. Haverford, USA, (2010), U. Sheffield (2007); QUB Belfast (2007,2009); U. St Andrews (2008); Royal Netherlands Academy, Academy Professor selection panel (2008-2009)

### **International science/project management boards**

Gaia ESA Science Team (1990-2000: co-presented Gaia mission for ESA approval); Chair European Extremely Large Telescope Design Study (2002-2006: presented E-ELT for ESFRI adoption); European Southern Observatory Council (UK national rep) (2003-2008); Iran National Observatory International Supervisory Board (2007 on); European Agencies Strategic Planning Group member 2008; EC Funding agencies AstroNet Executive Board (2007 on)

Chair, OPTICON, EC Coordinating Network for Astronomy; Chair, International Astronomical Union WG on Future Large Scale Facilities (2004-2010); UK/Ireland rep, IUPAP (International Union for Pure and Applied Science) (2005 on; vice-Chair C19, 2015-2018, Chair 2019-2021)

European Member, NASA Hubble Space Telescope Time Assignment Committee (1992, 1995, 1996, 1997); Member, NASA Spitzer Telescope Time Assignment Committee, Japan SUBARU TAC; International Member, Netherlands Astronomical Programme Committee

### **Journal Editor**

Receiving Editor, New Astronomy astrophysics research journal, (Elsevier, Amsterdam)

Consulting Editor: Publications of the Astronomical Society of the Pacific (ASP, San Francisco); Astronomy and Geophysics, (Royal Astronomical Society, London); New Astronomy Reviews (Elsevier, Amsterdam).

### **Major project reviews**

Canada Large Infrastructures Fund (2004, 2006, 2010); Denmark (2009), Nordic Astronomy Programme (2006, 2010), NSF International Facilities (2008-2010), EC (major programme review panels), Russia/German Space Agency major project review panel (2016), Estonia major project review panel (2016)

### **Grant/proposal/subject review panels (all on-going)**

Czech (CSF-GACR,bi-annual); Germany: DFG Visiting Panel 2009, Panel Member tri-annual; Rep Georgia (annual); Italy (CINECA-PRIN, INAF, bi-annual); Leverhulme (UK); Netherlands Lorenz Centre board (2000-2008), NWO (bi-annual); Norway (CAS); NZ: Australia; UK(many), South Africa (NRF), Spain (MICIN), Canada, Japan (JSPS, Subaru); Sweden (SNSB); Switzerland (SNF); Turkey; Austria; EC; ESF; ESA; France (ANR); NZ Universities RAE panel, Qatar QNRF, Russian Grants Foundation, Estonia, various Royal Society panels.

### **Major prize nominating panels:**

Nobel, Kyoto, Balzan, Shaw, Ambartsumian, Microsoft, Japan (all M\$ prizes), Sackler, King Faisal

### **Royal Society lead responsibilities**

Summer Science Exhibition – Chair 2019-

University Research Fellowships – Deputy Chair 2019-

### **Current Major Project PI Responsibilities with associated funding**

- a) Coordinator, OPTICON, the EC Optical-Infrared Coordination Network for Astronomy
  - b) UK Principal Investigator, Gaia Data Reduction and Analysis Consortium
  - c) UK STFC research funding support for Institute of Astronomy, Cambridge
  - d) Gaia-ESO Public Spectroscopic Survey (Co-PI )
  - e) Leverhulme Trust Senior research Grant
  - f) European Research Council Advanced Research Grant
- a) OPTICON: <http://www.astro-opticon.org>.** Gilmore is Scientific Coordinator, Executive Board Chair, and EC budget holder for OPTICON. EC contribution in FP6 was M€19.2, to a total activity budget of some M€35. In FP7 EC funding is M€10 (2009-2012), M€8.5 (2013-2016), and similar national support as in FP6. H2020 funding under review. OPTICON is an enormously valuable contribution to the structuring and development of high-technology European astronomy, and facilitates continuing wide access to Europe's 2-4m telescopes. The Scientific Coordinator role delivers management, project coordination and strategic leadership.
- b) UK Gaia data reduction and analysis consortium: <https://gaia.ac.uk>.** Gilmore is the UK PI and UK budget holder for all UK-based activities in support of the ESA Gaia mission. The UK leads responsibility for photometric data processing, for the real-time Science Alerts discovery and announcement activity, for implementation and operation of the Cambridge Gaia Data Processing Centre (DPCD), and has significant roles in the spectroscopic reduction and analysis activity. This activity is funded at M£13.6 2006-2012, M£12.8 2012-2018, and is planned to continue at a somewhat reduced level until 2026/2027 (approx PI total project budget M£30 to 2018). This activity supports algorithm development, software and data processing effort (currently some 20 FTE staff), and is provided by the UK Space Agency. A substantial national public engagement effort is also implemented, with UK and EC funding support.
- c) Gaia-ESO Public Spectroscopic Survey: <http://www.gaia-eso.eu>.** Gilmore is Co-PI of the Gaia-ESO Survey, leading the (majority) Milky Way field survey aspects. Gaia-ESO has over 400 Co-PI's, and is the first large Public Spectroscopic Survey implemented on the ESO VLT facilities. Support is provided by the UK Leverhulme Trust (2012-2015; £250K), and an ERC Advanced Grant (2013-2019;M€2.5).

Key Publications: Gilmore has over 800 published articles with 45,000 citations.

Significant scientific advances related to near-field cosmology include:

Gilmore & Reid MNRAS 202 1025 (1983) [Galactic thick disk]  
Kuijken & Gilmore MNRAS 239 605 (1989) [Local dark matter density]  
Kroupa, Tout and Gilmore MNRAS 262 545 (1993) [Low-mass IMF]  
Ibata, Gilmore & Irwin Nature 370 194 (1994) [Sgr dwarf galaxy]  
Perryman, deBoer, Gilmore, etal A&A 369 339 (2001) [Gaia mission]  
Gilmore, Randich etal ESO Messenger 147 25 (2012) [Gaia-ESO Survey]

These 5 articles total 5,700 citations, 26,000 reads, 14,000 downloads