

Didier (Patrick) Queloz

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HIGHLIGHTS

Didier Queloz is at the origin of the "exoplanet revolution" in astrophysics when in 1995 during his PhD with his supervisor they announced the first discovery of a giant planet orbiting another star, outside the solar system. This seminal discovery has spawned a revolution in astronomy and kick started the field of exoplanet research. Over the next 25 years, Didier Queloz scientific contributions have essentially been to make progress in detection and measurement capabilities of exoplanet systems with the goal to retrieve information on their physical structure to better understand their formation and evolution by comparison with our solar system. More recently he is directing his activity to the detection of Earth like planets and Universal life. In the course of his career he developed astronomical equipments, new observational approaches and detection algorithms. He participated and conducted programs leading to the detection of hundred planets, include breakthrough results. He participated to numerous documentaries movies, articles TV and radio interviews to share excitement and promote interest for science in general and particularly topics about exoplanets and life in the Universe. ([Homepage](#))

CURRENT POSITIONS

Professor at Cavendish Lab, Cambridge University, UK (main)
Professor, Astronomy department, Geneva University, Switzerland (part time)
Fellow of Trinity College, Cambridge, UK (Title D, non-teaching)

AWARDS

Science quotation (1995) (1995)
"Discovery of the first extra-solar planet as one of the 10 most important discovery of the year"
Vacheron Constantin prize "best PhD Science Faculty of U. Geneva" (1996)
Balzers prize, Swiss Physical Society (1996) (1996)
"the discovery of the planet orbiting the star 51Peg"
IAU "Medal of Honor" Bioastronomy, IAU commission 51 (shared with Mayor) (1996)
Sackler 2008 lecture, Leiden, NL (2008)
Geneva city prize, Science category (2011)
"Prix de la ville de Genève 2011" (shared with M. Mayor, S. Udry)
BBVA Foundation Frontiers of Knowledge Awards (2011)
Science category, (shared with M. Mayor)
Honorary degrees Queen University Belfast, UK (2012)
Royal Society Wolfson Research Merit Awards, UK (2013)
Thomson Reuters Citation Laureate: Physics. (2013)
Wolf Physics prize 2017 (shared with M. Mayor) (2017)
Barkla 2019 Distinguished Lecture, Liverpool, UK (2019)
Physics Nobel Prize 2019 (shared with J. Peebles & M. Mayor) (2019)
Listed in "10 extraordinary Nature papers" (2019)
Scott Lectures 2019, Cambridge, UK (2019)
Medal "Genève reconnaissance", Geneva (2019)

EDUCATION

Msc, Physics, Geneva University, Switzerland (1990)
Astronomy and Astrophysics Certificate, Geneva University, Switzerland (1992)
PhD, Astrophysics, Geneva University, Switzerland (1995)

PREVIOUS POSITIONS

Post-doc, Geneva University (1996 – 1997)

Distinguished visiting scientist, Jet Propulsion Lab, CA, USA	(1998 – 1999)
Research associate (“Maitre Assistant”), Geneva University	(2000 – 2002)
Faculty (“MER”), Geneva University	(2003 – 2007)
Professor Associate, Geneva University	(2008 – 2013)

TEACHING EXPERIENCE

Teaching assistant of Prof Michel Mayor	(1990 – 1997)
Invited Professor at Cargese School of Astronomy (France)	(1998)
Physics 1458 (“ <i>Student seminar and research work</i> ”), U. Geneva	(2001 – 2008)
Physics 1094 (“ <i>High angular resolution in astronomy</i> ”), U. Geneva	(2003 – 2007)
Invited Professor at the Nordic Winter School on Astrobiology, Finland	(2006)
Invited Professor at 11th Vatican Summer School “ <i>Observational Astronomy and Astrophysics</i> ”	(2007)
Public lecture “ <i>General astronomy</i> ”, U. Geneva	(2008 – 2012)
part III, minor, “ <i>Exoplanets and Planetary Systems</i> ”, U. Cambridge	(since 2014)
Supervision, Trinity College, U. Cambridge, UK	(since 2015)

MEMBERSHIPS, COMMITTEES, BOARDS

IAU “radial velocity commission”	(1997–2006)
VLTI Science demonstration team (ESO)	(2002–2006)
Swiss representative of the Interferometric Initiative EII-Science board	(2002–2010)
Advisory board of Planetary and Space Science journal	(2002–2007)
Co-I of EPICS team for the SIM mission	(2002–2009)
PI of PRIMA astrometric planet search program	(2003–2013)
Co-I of planet core program of the CoRoT satellite	(2003–2012)
ASTRONET Science Vision Working Group (SVWG)	(2006–2008)
ELT Science & Engineering Working Group (ESO)	(2006–2012)
LCOGT Science Advisory Committee	(2006–2012)
Committee member of IAU “exoplanet commission”	(2008–2015)
Chair of symposium IAU 253 “transiting planets”, Boston, US	(2008)
Swiss space committee	(2005–2015)
ESO Science and Technical Committee (STC)	(2009–2013)
E-ELT Project science team	(2012–2014)
Chair of the first UK Exoplanet conference (UKEXOM), Cambridge	(2014)
Chair SOC Cheops Workshops	(2013–2016)
Chair SOC, 31th IAP colloquium on extrasolar planets, Paris	(2015)
Chair, scientific council of OSU Pytheas, France	(2015–2017)
IAU Steering committee, div F (Planetary Systems and Bioastronomy)	(2015–2018)
Investigator Simonds Foundation SCOL	(since 2015)
Chair Science Team CHEOPS space mission (ESA-CH)	(since 2015)
Co-PI Speculoos consortium	(since 2016)
PI consortium “Terra Hunting” (HARPS-3)	(since 2016)
Chair SOC, Exoplanet-II conference, Cambridge	(2018)
Panel member STFC “Future Leaders”	(since 2018)

PhD, MPhil supervision

Didier Queloz supervised 7 PhD and 1 MPhil students to completion: B. Demory (2009), A. Triaud (2011), J. Sahlmann (2012), M. Lendl (2014), M. Neveu (2016), M. Guenther (2018) and A. Van Boetticher (MPhil 2018) A. Deline (2019).

Currently has 7 graduate students: R. Hall (due 2019),, C. Murray (due in 2021), J. Briegal (due 2021), P. Pederson, (due in 2022), G. Smith (2022) and E- M. Ahrer (MPhil due in 2019).

In 2014, the MERAC Prize was awarded for the Best Doctoral Thesis in Observational

Astrophysics to PhD student Amaury Triaud for his thesis work on *"the discovery and characterization of many new exoplanetary systems"*.

Postdoc, research associate Didier Queloz has directed 14 research associates: Dr Segransan (2001-2009) Dr Di Folco (2005-2007), Dr F.Pont (2005-2008), Dr Berhend (2005-2006), Dr Gillon (2006-2009), Dr Chazelas (2008-2010), Dr David Ehrenreich (2013-2015), Dr Demory (2014-2016), Dr Thompson (from 2014), Dr Gillen (from 2015, Winton fellow since 2018), Dr Delrez (from 2016), Dr Rimmer (from 2017), Dr V. Rajpaul (FRAS, from 2018), Dr A. Mortier (Kavli fellow, from 2018). As part of his tasks in the development of the CHEOPS ground-segment at Geneva, he is responsible for the development team of 5 engineers until launch (Dec 2019) and 3 operation engineers for the 3.5 years period of satellite scientific exploitation.

PUBLICATIONS METRIC

	Refereed	non-refereed	total
Publications	390	415	805
Citing papers	10094	2562	10896
Total citation	28895	3400	32304
h-index	88	23	92
m-index	3.5	0.9	3.4
i10-index	334	44	378
tori index	96.7	9.7	101.9

ref SAO/NASA ADS

MAIN INTERNATIONAL COLLABORATORS

United-Kingdom:

U. Birmingham (A. Triaud); U. Exeter (I. Baraffe); U. Leicester (M. Goad & M. Burleigh); U. Queen Belfast (C. Watson); U. St-Andrews (A. Cameron); U. Warwick (P. Weathley & D. Pollacco)

Europe:

DLR, Berlin, Germany (H. Rauer); U. Bern, Switzerland, (Brice Demory, W. Benz & K. Heng); U. Heidelberg, Germany , (T. Henning); IAC, Spain, (R. Rebolo); U. Leiden, Netherland (I. Snellen); U. Liege, Belgium (M. Gillon); U. Uppsala, Sweden (N. Piskunov)

Others:

U. Chile, Chile (J. Jenkins); U. Harvard, USA D. (D. Sasselov); MIT, Cambridge, USA (J. Ricker); Princeton, USA (J. Winn)