RESUME

Last name:	**MAYOR**
First name:	**Michel**
Middle name:	Gustave
Date of birth:	January 12, 1942
Citizenship:	Swiss
Marital status:	Married, 3 children
Address: (office)	Geneva Observatory Chemin Pegasi 51 CH-1290 VERSOIX, Switzerland
Position:	Professor Emeritus at the Department of Astronomy, University of Geneva Tel (home) +41-(0)22-369 17 95 email: Michel.Mayor@unige.ch

DEGREES

- Master in Physics, Lausanne University, 1966
- "Certificat d'Astronomie et d'Astrophysique", University of Geneva, 1968
- PhD, University of Geneva, 1971: "Essay on the kinematical properties of stars in the solar vicinity: possible relation with the galactic spiral structure."

ACADEMIC POSITIONS

- Assistant Geneva University 1966 – 1971
- Research associate (SNF) 1971 - 1984
- Associate professor, University of Geneva, 1984 - 1988
- Professor, University of Geneva, 1988 - 2007
- Director of the Geneva Observatory, 1998 - 2004
- Professor Emeritus, University of Geneva, since 2007

PARTICIPATION IN PROFESSIONAL ASSOCIATIONS

- Organiser and publisher of 9 *Saas-Fee Advanced Courses* of the Swiss Society of Astrophysics and Astronomy
- Member of the Editorial Board of "Europhysics News", 1985 – 1990
- Swiss delegate for the ESA (Agence Spatiale Européenne) "Astronomical Working Group", 1985 – 1987
- President of the Commission 33 on "Structure and dynamics of the galactic system" of the International Astronomical Union (IAU), 1988 – 1991
- Chairman of the "Scientific Technical Committee of ESO (European Southern Observatory)", 1990 – 1992
- President of the Swiss Society of Astrophysics and Astronomy (SSAA), 1990 – 1993
- Member of the Organising Committee of the IAU Commission on Bioastronomy, 1997 – 2003
- Swiss Delegate to the ESO Council, 2003 – 2007
- President of the IAU commission on "Extra-solar planets", 2006 – 2009

- Member of the "European Academy of Sciences", 2004
- Foreign Associate of the French Academy of Sciences, 2003
- Honorary Fellow of the Royal Astronomical Society (UK), 2008
- Foreign Member of the National Academy of Sciences (USA), 2010
- Foreign Member of the American Academy of Arts and Sciences, 2010
- Honorary Member of the AAS (American Astronomical Society), 2015
- Honorary Member of the EGU (European Geosciences Union), 2016
- Foreign Member of the Royal Academy of Sciences of Spain, 2021
- Foreign Member of the Academy of Sciences of Torino, 2021

AWARDS AND DISTINCTIONS

- Award of the "Académie Française des Sciences" 1983 (Prix "Charles-Louis de Saulces de Freycinet", (this prize has been jointly awarded to André Baranne and Michel Mayor).
- Discovery of the first extra-solar planet 51 Peg, cited by "Sciences" as one of the 10 most important discoveries in 1995
- Medal of the IAU Commission of Bioastronomy awarded at the General Assembly at Kyoto, 1997 (this medal has been jointly awarded to M. Mayor, D. Queloz, G. Marcy, P. Butler)
- Laureate of "Marcel–Benoist" Award 1998 of the Swiss Confederation
- Janssen's Medal awarded by the Société Astronomique de France, 1998
- ADION's Medal awarded by the Observatoire de la Côte d'Azur, Nice (France), 1999
- **Laureate of the "E. Balzan" International Award 2000**
- Medal awarded by the Montpellier University (France), 2001
- Medal of the City of Montpellier (France) 2002
- The asteroid 125076 Michelmayor is named in his honour.
- Prize "Livre de l'astronomie 2001" awarded for the publication of the book "Les nouveaux mondes du cosmos" (in collaboration with P.Y.Frei) awarded by the 17th Astronomy Festival Haute Maurienne/F
- Knight of the French Legion d'Honneur 2004
- Member of the list of "Highly cited Scientists" (Presently, h-index 118)
- Laureate of the Prize of the "Fondation pour Genève", 2005
- **Laureate of the Shaw Prize for Astronomy (shared with G. Marcy), Hong-Kong, 2005**
- Medal of the University of Geneva, 2009
- Karl-Schwarzschild Medal awarded by the Deutsche Astronomische Gesellschaft, 2010
- **Viktor Ambartsumian International Prize (shared with G. Israelian and N. Santos), 2010**
- Prize (Sciences) awarded by the town of Geneva (shared with D. Queloz and S. Udry), 2011
- **BBVA "Frontiers of Knowledge Award " (shared with D. Queloz), Madrid 2012**
- Nature Citation as a member of the 2013 Top Ten Scientists
- **Gold Medal of the Royal Astronomical Society, 2015**
- Tycho Brahe Prize awarded by the European Astronomical Society, 2015
- **Kyoto Prize in Basic Sciences, awarded by the Inamori Fundation, Nov. 2015**
- Jean-Dominique Cassini Medal awarded by the European Geosciences Union, Apr. 2016
- Officer of the French Order "Legion d'Honneur", May 2017
- **Wolf Prize (physics), June 2017**

- **Nobel Prize (physics) (shared with J. Peebles and D. Queloz), Dec.10th 2019**
- Medal "Genève Reconnaissante", Dec 2019
- GAL Hassin Prize, Sept 2020
- The film "Chasseurs de Mondes" (Patrick Baud, Michel Mayor, Alexandre Astier) won the first Jury Prize at the II Festival de court-métrage scientifique de Riom, France, 2022
- Medal of the city of Forcalquier, France, June 2023
- Honorary citizen of Florence, reception of the "Keys of the City of Firenze" Sept. 2023

HONORARY DEGREES

- Honorary Doctor of Katholieke Universiteit Leuven (Belgium), 2001
- Honorary Doctor of the Swiss Institute of Technology, 2002
- Honorary Doctor of the Federal University of Rio Grande do Norte (Brazil), 2006
- Honorary Doctor of Philosophy of Uppsala University (Sweden), 2007
- Honorary Doctor of Paris Observatory (France), 2008
- Honorary Doctor of the "Université Libre de Bruxelles", (Belgium), 2009
- Honorary Doctor of the University of Provence (Marseille, France), 2011
- Honorary Doctor of the Joseph Fourier University (Grenoble, France), 2014
- Honorary Doctor of the University of Liège (Belgium), 2018
- Honorary Doctor of the University of Chandigarh (India) 2022

SPECIAL LECTURES AND INVITED DISCOURSES

- Invited Discourse of the General Assembly of the International Astronomical Union, Manchester, Aug. 2000
- Niels Bohr Lecture, Copenhagen, 2000
- 5th Leibniz Kolleg's Lecture, Potsdam (Germany), 2001
- Laureate of the Helen Sawyer-Hogg Prize, awarded by the Canadian Astronomical Society, 2005
- Barringer's Lecture at the 69th annual meeting of the Meteoritical Society, Zurich 2006
- Payne-Gaposchkin's Lecture at Harvard University (US), 2008
- Marker's Lecture at Pennstate University (US), 2008
- Kepler's Lecture at Tübingen University (Germany), 2009
- Andrew Chamblin's lecture at Cambridge University, 2010
- Karl-Schwarschild's lecture at the meeting of the Deutsche Astronomische Gesellschaft, Bonn, 2010
- Edmund Halley's lecture at Oxford University, 2011
- Paco Yndurain's lecture at Madrid University, 2011
- Yervant Terzian's lecture at Cornell University, 2012
- Einstein's lecture at the Weizmann Institute (Israel), 2013
- Nobel Lecture, Stockholm (Sweden), 2019 (REV.MOD.PHYS. Vol 92, July-Sept 2020 "A dream of antiquity, a modern reality of astrophysics"

Career, Michel Mayor

Professor Michel Mayor was born in Lausanne (Switzerland). After obtaining a Master in Physics at University of Lausanne, he turned to astrophysics and got interested in the dynamics of spiral galaxies. Professor M. Mayor focused his PhD research on investigating evidence of spiral structure in the Milky Way in the velocity distribution of stars close to the Sun. To further explore this possibility, at the end of his PhD he decided to develop a new specific spectrograph dedicated to measuring stellar radial velocities. This was the start of his interest in stellar kinematics. This research led to various fields of interest, among which the dynamics of globular clusters and the study of statistical characteristics of solar-type binary stars (Duquennoy, Mayor (1991). He was naturally driven to study small mass companions to stars analogous to our Sun. By the end of the 1980's, the evolution of technology was such that it enabled the development of a new spectrograph. This spectrograph, built at the Haute-Provence Observatory, reached a level of precision that enabled the detection of extra-solar planets.

As part of an extensive survey, Professor M. Mayor and Didier Queloz, one of his graduate students, successfully identified the planetary companion to the solar-type star 51 Pegasi in 1995 marking the groundbreaking discovery of the first exoplanet.
This discovery has resulted in the advent of an exciting new research field known as "exoplanets". Due to the constant improvements to his high dispersion spectrographs, Professor M. Mayor's work has significantly contributed to the discovery of "super-Earth" planets with mass greater than that of Earth.
In 2000, Professor M. Mayor took the lead for the construction of a new spectrograph: HARPS, optimized to search for very low mass planets. This spectrograph revealed the large occurrence of the subpopulation of super-Earths on tight orbits, challenging the scenarios of planetary formation.

In addition to his research activity, Professor M. Mayor has initiated a series of advanced-level courses in astrophysics since 1971, the "Saas-Fee courses". He was a co-organizer for nine of these courses.
From 1984 to 2007, he was teaching astrophysics at Geneva University for undergraduate courses at the Department of Physics as well as post-graduate ones at the Department of Astronomy.
From 1998 to 2004, Professor M. Mayor was Director of the Geneva Observatory.

He was also active in ESO (the European Southern Observatory), serving as the chairman of the Scientific and Technological Committee of that organization (1990-92) and the Swiss delegate to the Council of ESO (2003-2007).
In the frame of the IAU (International Astronomical Union) Professor M. Mayor chaired the Commission on the "Structure and Dynamics of the Galactic System" (1988-1991), as well as the new Commission devoted to "Extra-solar planets" (2006-2009).

Since 2007, Professor M. Mayor is Emeritus professor at Geneva University.

More than twenty years after the discovery of 51Peg b, Professor M. Mayor devotes a large fraction of his time as a member of his research group, while also inspiring other teams. For example, Professor M. Mayor, along with D. Latham, was at the origin of the development of a northern copy of the overwhelming HARPS spectrograph designed for measuring the mass of rocky planets detected by the Kepler space mission. A program focused on the physics of very low mass planets which has led to the publication of numerous scientific papers.

He also gives a large tribute to outreach activities … a direct consequence of the exceptional interest shown by the public for that new domain of astronomy.

He was awarded the 2019 NOBEL Prize in physics, which he shared with Dr. J. Peebles and D. Queloz.

A FEW SELECTED PAPERS

1	***A Jupiter-mass companion to a solar type star*** *Nature 378, 355 (1995)* **Mayor M.**, Queloz D. *First discovery of a planet orbiting a solar-type star.* *This first exoplanet provides the evidence of planetary migration, a physical effect involved in any present scenario of planetary formation.* *Paper selected in "A Century of Nature; Twenty-one discoveries that changed Science and the World". Edited by Laura Garvin of Tim Lincoln University of Chicago Press 2003.* *One of the 3 selected papers in astronomy.*
2	***An extra-solar planetary system with three Neptune-mass planets*** *Nature,441, 305 L,* (2006) Lovis C., **Mayor M**., Pepe F., et al. *The first example of the population of Neptune mass-planets on tight orbits.*
3	***The HARPS search for southern extra-solar planets*** ***XIII. A planetary system with 3 super-Earths (4.2, 6.9, and 9.2 M{⊕}*** *A&A, 493, 639,* (2009) **Mayor M**., Udry S., Lovis C., et al. *A planetary system with 3 super-earths. The first example of the rich population of Super-Earth orbiting solar-type stars.*
4	***The HARPS search for southern extra-solar planets*** ***XVIII. An Earth-mass planet in GJ 581 planetary system*** *A&A, 507, 487,* (2009) **Mayor M**., Bonfils X., Forveille T., et al.
5	***Detection of planetary transits across a sun-like star*** *ApJ , 529 L, 45 (2000)* Charbonneau, D., Brown, T. W., Latham, D. W., **Mayor M.** *The first detection of a transiting planet.*
6	***Detection of a spectroscopic transit by the planet orbiting the star HD209458*** *A&A, 359, 13 (2000)* Queloz, D., Eggenberger, A., **Mayor, M.** et al. *The first Rossiter-McLaughlin effect due to a transiting planet. This measurement allows the estimation of the relative angle between the orbital planet and the stellar equatorial planet.*
7	***Evidence for planet engulfment by the star HD 82943*** Nature, 411, 613 (2001) Israelian, G., Santos, N. C., **Mayor, M.**, Rebolo, R. *In that paper we present the Li 6 test to search for evidence of such engulfment of planets.*
8	***The metal-rich nature of stars with planets*** *A&A, 373, 1019 (2001)* Santos, N., Israelian,G., **Mayor,M.** et al. *The work described in this paper represents the first uniform and unbiased comparison between stars with and without planetary-mass companions in a volume limited sample. The results show that:* *1) stars with giant planets are significantly metal-rich* *2) the source of metallicity is most probably primordial*

9	***Setting new standards with HARPS.*** Msngr. 114, 20 (2003) **Mayor,M**., Pepe,F., Queloz,D. et al. *Brief description of the new HARPS instrument installed on the ESO 3.6 m telescope at la Silla observatory. Until 2018, the most precise spectrograph to detect exoplanets by Doppler spectroscopy. References 2,3,4,10 illustrate a few discoveries made by that instrument. (M.Mayor was the Pi of the consortium having developed HARPS)* *Observatory on the Galileo telescope.* *A northern copy of HARPS has been installed on the Galileo telescope at la Palma Observatory to contribute to the characterization of very low mass planets detected by the Kepler space mission.*
10	***The HARPS search for southern extra-solar planets.*** ***XXVII. Up to seven planets orbiting HD 10180: probing the architecture of low-mass planetary systems*** *A&A, 528,112 (2011)* Lovis C., Segransan D., **Mayor M.** et al. *A planetary system with 7 planets, most of them on very tight orbits.*
11	***Nobel Lecture: Plurality of worlds in the cosmos: A dream of Antiquity, a modern reality of astrophysics.*** M.Mayor, Rev Mod. Physics. 92 (2020), DOI: 10.1103/RevModPhys.92.030502
12	***Plurality of worlds***, M.Mayor, Ann.Rev.Astron,Astrophys. 62 (2024), in press.