



Marc FERRARI – Astronome (1st Class)

Born the 21st April 1965 in Marseille (France)
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Main activities: Astronomical Instrumentation programs for space and ground-based telescopes, Research and Development, Technological facilities, and Industrial Partnership

Position: 1st class Astronome - LAM policy Advisor for Scientific/Industrial Partnership

Employments and Positions

- 2022 - 2023 – Advisor for Innovative Instrumentation and Valorisation at CNRS INSU – DIIRO
- 2017 - 2025 – Director/co-Director of the LAM-THALES joint laboratory, *Optical Systems and Instrumentation*
- 2012 - 2017 – LAM Deputy Director: R&D, Technical Facilities, and Industrial Partnership
- 2004 - 2012 – Head of R&D Optics and Instrumentation scientific group at LAM – Active Optics leader
- 1999 - 2004 – Assistant Astronome at LAM, Researcher in Astronomical instrumentation
- 1997 - 1999 – Research Fellow at the European Southern Observatory – ESO (Garching – D)
- 1995 - 1997 – Research Fellow at the European Space Agency - ESA / ESTEC (Noordwijk – NL)
- 1991 - 1994 – PhD in Astronomical Instrumentation, Observatoire de Marseille, Provence University

Responsibilities

- Co-responsible of Innovation Cell for the Institute of Universe Physics (IPhU), Aix-Marseille Univ. (2021-...)
- CNES representative, as International member, in the Astro2020 Decadal NASA LUNAR STDT (2016-2020)
- Member of CNRS National Committee for Astronomy and Astrophysics – CoNRS Section 17 (2017-2021)
- Co-responsible of the Y3 Space Technologies & Instrumentation module at Ecole Centrale Marseille (2020-...)
- Academic/Industry association on Freeform Optics Research & Solution [FO-RS], Executive Board (2019 -...)
- Advisory Committee for French INSU Astronomy and Astrophysics Prospective (2014-2015)
- Organisation and R&D groups for French INSU Astronomy and Astrophysics Prospective (2014-2015)
- High Scientific Council of Observatoire de Paris (2014 – 2018)
- National Committee of Specialists in Astronomy & Astrophysics – CSAA, CNRS/INSU (2011 - 2015)
- High Angular Resolution Specific Action – ASHRA, CNRS/INSU, Scientific committee (2000 - 2012)
- LabEx FOCUS “FOCal plane arrays for Universe Sensing”, Executive Board (2012 - 2016)
- GEPI laboratory of Paris Observatory, Laboratory Council (2014 - 2018)
- High Angular Resolution scientific interest group [GIS PHASE], Scientific committee (2010 - 2017)
- CARNOT Institute STAR “Science, Technologie, Applications de la Recherche”, Executive Board (2010 - 2016)
- OPTITEC competitiveness cluster “Optics & Imaging Complex Systems”, Executive Board (2006 - 2023)
- Members of SOC or LOC of numerous conferences (SPIE, OCS, JRIOA, ESO-ELT...)
- Journals reviewer (Applied Optics, Optical Engineering, .)
- ANR scientific programs reviewer (Astronomical Instrumentation, Optics)
- Member of Scientific/Administration Councils (LAM, OSU Pytheas)

Scientific/instrumentation projects management (PI or Co-PI)

- PI of the ANR LabCom program NANO-PtoV with Winlight System (2021-2025)
- PI of the NASA ROMAN Space Telescope / Off-Axis Optics delivery [CNES/NASA] (2017- 2022)
- FP6 – FP7 and H2020 OPTICON programs LAM scientific responsible (2005 – 2020)
- Co-PI of the THALES/CNRS/ONERA Space wave-front sensing for extended objects [RASCASSE] (2012-2015)
- PI of the CNES study on new technologies for space applications (2011-2012)
- Co-PI of the THALES/CNRS prototype of Active Optic for space applications [MADRAS] (2009-2012/2014-2015)
- PI of the ESO study on Stress Mirror Polishing for the E-ELT segments mass production (2010-2013)
- PI of the Toric Mirrors stress polishing manufacturing for the ESO VLT-SPHERE instrument (2007-2010)
- PI of the ESO active fabrication/aspherization of a prototype aspherical large thin shell (2004-2008)



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Technopôle de Château-Gombert
38, rue Frédéric Joliot-Curie
13388 – MARSEILLE Cedex 13
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Other evaluation activities (2012-2021):

Evaluation Committees:

- Member of the HCERES visiting committees of LESIA (2018) and IPAG (2019) laboratories.
- Member of the INSU monitoring committee of the MATISSE instrument for the VLTI (2013 – 2016)
- Member of the Evaluation Committee, for the CNRS Interdisciplinarity Mission (MITI), professional networks (Network of Mechanics and Network of Electronic) (2017)

Recruitment Committees:

University of Nice Sophia Antipolis:

- 2020, "High Angular Resolution, Adaptive Optics, Very High Dynamic Imaging" Professor position in section 34.
- 2019, "General physics, Astrophysics" Professor position in sections 28-29-30-34

Ph.D Jury :

- Marin Fouchier; 2021; "Light diffused by complex interference filters: development of a high-performance metrology bench and artificial intelligence synthesis tools" (President)
- Christophe Gaschet; 2018; "Curved and deformable detectors: multidisciplinary applications" (President)
- Lucie Leboulleux; 2018; "Optimal wavefront control for very high contrast imaging: application to the cophasing of segmented mirrors" (President)
- Khanh Linh Nguyen; 2018; "Optical measurements of turbulence profiles for future adaptive optics and observation systems" (Referee)
- Pierre Janin-Potiron; 2017; "Active correction of pupillary discontinuities in segmented mirror telescopes for high contrast imaging and high angular resolution" (Referee)
- Sébastien Vievard; 2017; "Development and validation of a focal plane wave surface analyser for a multi-pupil instrument" (Referee)

HDR Jury:

- Mamadou N'Diaye; 2022; "Instrumentation sol et espace pour la spectro-imagerie des exoplanètes »
- Raphael Galicher; 2020; "Imaging of exoplanets: from the optical system to the frequency of gas giants"
- Guillaume Druart; 2019; "Frugal approach to the design of infrared cameras" (Referee)
- Olivier Lai; 2018; "20 years of adaptive optics on Maunakea" (Referee)
- Serge Meimon; 2018; "High Angular Resolution, from astronomy to the human body"
- Marcel Carbillet; 2013; "Adaptive Optics Modeling and Adaptive Post-Optic Imaging in Astronomy" (Referee)

Other transfer activities:

French "Plan de Relance 2020-2021"

- PI of the ProMISS (Prototype de Miroir Segmenté Spatial) program with Thales-SESO
- Co-I of the ALAMO (AlPAO-LAM Optique-adaptative) program with the ALPAO company
- Co-I of the NASCA (New Athermalized Spectrographic Camera for Astrophysics) program with Winlight-System

Patents (plus several international extensions)

- Ferrari, Hugot, Lemaitre, Carré, Du Jeu ; *Procédé de façonnage d'un élément optique asphérique* ; Owners CNRS/AMU/SESO ; Published 25/12/2009 ; réf : FR 2932897
- Laslandes, Ferrari, Hugot ; *Dispositif de correction d'au moins une aberration d'évolution connue à miroir déformable* ; Owners CNES/CNRS/AMU/Thales-Alenia-Space ; Published 26/10/2012 ; réf : FR 2974425
- Laslandes, Ferrari, Hugot, Liotard ; *Miroir comprenant des moyens mécaniques de génération d'aberrations géométriques primaires* ; Owners Thales-Alenia-Space/CNES/CNRS/AMU ; Published 23/03/2013 ; réf : FR 2980278
- Jahn, Hugot, Ferrari ; *Objectif grand champ à focale variable et surface focale courbe* ; Owners CNRS/AMU ; Published 01/09/2016 ; réf : FR 1658104
- Hein, Ferrari, Tetaz, Jahn, Hugot ; *Télescope de type Cassegrain à plan focal segmenté* ; Owners CNRS/AMU/Thales-Alenia-Space ; Published 26/09/2019 ; réf : FR1910625