PERSONAL INFORMATION Ema

Emanuele Pace



- Università di Firenze
 Dipartimento di Fisica e Astronomia
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Sex M | Date of birth 05/06/1964 | Nationality IT

Enterprise	University	EPR
☐ Management Level	☐ Full professor	Research Director and 1st level Technologist / First Researcher and 2nd level Technologist / Principal Investigator
☐ Mid-Management Level	☐ Associate Professor	☐ Level III Researcher and Technologist
☐ Employee / worker level	Researcher and Technologist of IV, V, VI and VII level / Technical collaborator	☐ Researcher and Technologist of IV, V, VI and VII level / Technical collaborator

Indicate SSD FIS/05

WORK EXPERIENCE

2018 - today

Professor of Natural Sciences

Florida State University

Adjunct Professor

Business or sector Astronomy & Environmental Science

2015 - today

Expert evaluator for the Marie Skłodowska-Curie Work Programs of the European Commission "Innovative Training Networks" and "Individual Fellowships"

Research Executive Agency (REA)

Evaluator and rapporteur of MSCA projects

Business or sector Astrophysics and Space instrumentation

2014 - today

Director of the Osservatorio Polifunzionale del Chianti

Università di Firenze

• Chief Scientific Officer of the Scientific Council

Business or sector Science management

2012 - today

Professor of Astrophysical Techniques

Università di Firenze

Adjunct Professor

Business or sector Experimental astronomy

2012 - 2014 Member of the Scientific Commission of the GILDA beam line at the European Synchrotron Research Facility.

National Institute of Nuclear Physics

Coordination of the scientific programme of the beamline and evaluation of the scientific proposals.

Business or sector Physics

2009 - 2014 Director of the Research Unit "Università di Firenze" of the Rete Interuniversitaria per l'Astronomia e l'Astrofisica (RIAA)

Dipartimento di Astronomia e Scienza dello Spazio, Università di Firenze; then, Sezione di Astronomia e Astrofisica, Dipartimento di Fisica e Astronomia, Università di Firenze

 Coordination of the Astronomy Departments of Italian Universities with the National Institute of Astrophysics (INAF)

Business or sector Astronomy & Astrophysics

2007 - 2019 Responsible for the UV-VIS synchrotron beam line @ DAFNE

INFN Frascati National Laboratories

• Scientific Responsible of the beamline activities mainly focused on testing space instrumentation

Business or sector Physics & Space instrumentation

2004 - today Professor of Space Technologies

Università di Firenze

Adjunct Professor

Business or sector Space technology

1995 - 1996 Professor of Physics, Engineering Faculty

Università di Udine

Adjunct Professor

Business or sector Physics

EDUCATION AND TRAINING

1992 - 1995 Ph.D. in Physics

EQF 8

Università di Firenze

Physics & Astronomy

1983 - 1991 Bachelor of Physics

EQF7

Università di Firenze

Physics & Astronomy

1978 - 1983 High School Degree

EQF4

Villa Flaminia, Scientific Lyceum, Roma, IT

• Mathematics, Physics, Science

WORK ACTIVITIES

Main projects

2019-2020 – Program Manager of the CSL-INAF contract as part of the ESA contract n° 4000126124/18/NL/BW entitled "Cryotesting of ARIEL M1 mirror and process coating qualification for derisking ARIEL Schedule".

2018-2020 – Principal Investigator of the "Skysurv" project, funded by Cassa di Risparmio di Firenze, to implement a monitoring system of fireballs entries in the Earth's atmosphere based on the combination of wide-field optical cameras and infrasound arrays.

2016-today – Co-Principal Investigator and AIV manager of the LOw-Cost NIR Extended Solar telescope (LOCNES) solar telescope currently at the National Telescope Galileo, La Palma, Canary Islands.

2015-Today – Program Manager for the Italian contribution to the ARIEL space mission as M4 mission of the Cosmic Vision roadmap of the European Space Agency and Project Manager of the ARIEL Telescope Assembly.

2015 - Co-Chairman of the board for the Euclid/NISP DPU/DCU HW Preliminary Design Review.

2013 – Principal Investigator of the DIASPACE2 experiment on board the Roscosmos/NASA mission BION M1 using diamond dosimeters to measure the ionizing radiation dose received in the spacecraft environment.

2011-2014 – Program Manager of the Italian contribution to the EChO Space Telescope, as candidate to the M3 mission of the Cosmic Vision roadmap of the European Space Agency.

2011 – Principal Investigator of the 3DISS experiment as part of the BIOKIS experiment suite on the Space Shuttle and the International Space Station to investigate DNA damaging with diamond dosimeters.

2009 - Responsible of two work packages in the ASI On Moon project to develop CCD detectors and diamond dosimeters for applications on the future Moon bases.

2008 – Responsible of the contribution of the Dipartimento di Astronomia e Scienza dello Spazio, Università di Firenze to the Research Integrated Project "STAR": Solare Termodinamico ad Alto Rendimento" funded by Regione Toscana. 2007-2011 – System Engineer of the Instrument Control Unit on the PLATO Space Telescope, as candidate to the M2 mission of the Cosmic Vision roadmap of the European Space Agency (EP left PLATO to join the EChO for the M3 competition and then Ariel projects).

2007 – Principal Investigator of the DIASPACE experiment on board the Russian FOTON/M3 in an ASI/ESA mission using diamond dosimeters to measure the ionizing radiation dose received in the spacecraft environment.

2007 – Responsible for the near-UV channel and the OGSE in the Fase A of the WSO/UV space telescope.

2001-2003 - Responsible for the UV and VIS CCD cameras of the Herschel/Score NASA rocket mission.

2000-2004 – Responsible for the on-board calibration system in the Fase A of the EUSO space telescope for the ESA F2/F3 missions and then as a payload for the Columbus module of the ISS.

1996-2013 - Form and lead the XUVLab research group at the University of Florence

1995-2013 – leaded several National and European projects on the technological research focused on using synthetic diamond as novel material for high-efficiency X-UV photon detectors and dosimeters; he was considered one of the world-wide leading experts in this field.

1994 – Centre Spatiale de Liege, Belgium, to use his innovative XUV CCD Camera to characterize the X-ray mirrors of the XMM space telescope

Tutoring activities

PhD mentorship in Space Science and Instrumentation since 1996 to current at the Università di Firenze. Bachelor thesis in Space Science and Instrumentation since 1993.

Awards

Minor planet 114608 2003 DC7 named "Emanuelepace" by the International Astronomical Union for his relevant scientific activity.

Patents

Concentratore solare, particolarmente adatto per impianti a torre - N. ITPD20090353 del 25/05/2011

ADDITIONAL INFORMATION

Publications

- V. Da Deppo, M. Focardi, K. Middleton, G. Morgante, E. Pascale, S. Grella, E. Pace, R. Claudi, J. Amiaux, J. Colomé Ferrer, T. Hunt, M. Rataj, C. Sierra-Roig, I. Ficai Veltroni, P. Eccleston, G. Micela, G. Tinetti, An afocal telescope configuration for the ESA ARIEL mission, CEAS Space J (2017) 1-20. https://doi.org/10.1007/s12567-017-0175-3.
- G. Tinetti, P. Drossart, P. Eccleston, E. Pace, et al., A chemical survey of exoplanets with ARIEL, Exp Astron 46: 135 (2018). https://doi.org/10.1007/s10686-018-9598-x
- M. Focardi, E. Pace, M. Farina, A. M. Di Giorgio, J. Colome Ferrer, I. Ribas, C. Sierra Roig, L. Gesa Bote, J. C. Morales, J. Amiaux, C. Cara, J. L. Augures, E. Pascale, G. Morgante, V. Da Deppo, M. Pancrazzi, V. Noce, S. Pezzuto, M. Freriks, F. Zwart, G. Bishop, K. Middleton, P. Eccleston, G. Micela, G. Tinetti, The ARIEL Instrument Control Unit design for the M4 Mission Selection Review of the ESA's Cosmic Vision Program, Exp Astron 46: 1 (2018). https://doi.org/10.1007/s10686-017-9560-3.
- M. Di Fraia, A. De Sio, M. Antonelli, R. Nesti, D. Panella, R. Menk, G. Cautero, M. Coreno, D. Catone, N. Zema, C. Callegari, E. Pace, Fast beam monitor diamond-based devices for VUV and X-ray synchrotron radiation applications, J. Synchrotron Rad. 26, 386-392 (2019). https://doi.org/10.1107/S1600577519000791.
- Naponiello, L., Betti, L., Biagini, A., Pace, E., et al., Photometry of exoplanetary transits at Osservatorio Polifunzionale del Chianti. Exp Astron 50, 169–183 (2020). https://doi.org/10.1007/s10686-020-09669-6
- 6. F. Colas, E. Pace, et al., FRIPON: a worldwide network to track incoming meteoroids, A&A, 644 (2020)

- A53. https://doi.org/10.1051/0004-6361/202038649
- M Focardi, AM Di Giorgio, L Naponiello, V Noce, G Preti, A Lorenzani, A Tozzi, C Del Vecchio, E Galli, M Farina, G Morgante, A Scippa, G Redigonda, G Giusi, J Amiaux, C Cara, M Berthe, R Ottensamer, P Eccleston, A Caldwell, G Bishop, L Desjonqueres, R Drummond, D Brienza, E Pace, Exp Astron (2021). https://doi.org/10.1007/s10686-020-09694-5
- D Gardiol, D Barghini, A Buzzoni, A Carbognani, M Di Carlo, E. Pace, et al., Cavezzo, the first Italian meteorite recovered by the PRISMA fireball network. Orbit, trajectory, and strewn-field. Monthly Notices of the Royal Astronomical Society, 501, 1 (2021) 1215–1227. https://doi.org/10.1093/mnras/staa3646
- J Harms, E. Pace et al., Lunar Gravitational-wave Antenna, The Astrophysical Journal, 910, 1, (2021). https://doi.org/10.3847/1538-4357/abe5a7
- G. Belli, E. Pace, E. Marchetti, Detection and source parametrization of small-energy fireball events in Western Alps with ground-based infrasonic arrays, Geophysical Journal International, 225, 3 (2021) 1518 1529. https://doi.org/10.1093/gji/ggab042
- A. Kokori, E. Pace et al, ExoClock project II: A large-scale integrated study with 180 updated exoplanet ephemerides, arXiv:2110.13863 [astro-ph.EP] accettato su Astrophysical Journal Supplement Series (2022). https://doi.org/10.3847/1538-4365/ac3a10