

MONTHLY NEWSLETTER



INAF Osservatorio Astrofisico di Arcetri

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HIGHLIGHTS

ERIS sees first light

ERIS, the Enhanced Resolution Imager and Spectrograph is the ESO's newest scientific instrument. ERIS, Installed on ESO's Very Large Telescope (VLT) at Cerro Paranal in northern Chile, has successfully completed its first test observations.

Press release ESO: <https://www.eso.org/public/italy/announcements/ann22015/>

Notizia INAF: <https://www.media.inaf.it/2022/11/23/prima-luce-ottiche-adattive-eris-vlt-eso/>

Team INAF-OAA (responsible for the ERIS Adaptive Optics system):

Co-PI: Simone Esposito; AO System Engineer: Armando Riccardi; Software and Assembly, Integration and Verification: Alfio Puglisi, Paolo Grani; Assembly, Integration and Verification: Runa Briguglio, Marco Bonaglia, Luca Carbonaro; Data analysis: Guido Agapito; Science Committee: Filippo Mannucci, Giovanni Cresci.



ERIS sees first light, capturing a detailed view of the inner ring of NGC 1097. Credits: ESO/ERIS

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The Gaia-ESO Survey: Chemical evolution of Mg and Al in the Milky Way with Machine-Learning

Astronomy & Astrophysics, in press

<https://arxiv.org/pdf/2208.08872.pdf>

EVENTS

150 anni di ricerca all'Osservatorio di Arcetri

On **November 17th**, the celebration "[150 anni di ricerca all'Osservatorio di Arcetri](#)" has been closed with an institutional ceremony. Many guests attended the event, including the INAF President Marco Tavani, Maria Federica Giuliani (Councillor on behalf of Municipality of Firenze), Cristina Giachi (President V Commission, on behalf of Toscana Region), Debora Berti (University of Firenze, Professor and Deputy of the Rector for Research).

[Media INAF video news](#)



At left, Marco Tavani (INAF President) at the closing ceremony of the "150 years of research at the Observatory of Arcetri" celebrations. Credits: INAF Arcetri

Touch-Sky

The national project "[Touch-Sky. Alla scoperta del cielo con gli atlanti del passato e i satelliti del futuro](#)" has been presented on **November 22nd** in Roma at INAF headquarter. The realization of a virtual exhibition "[Look up! Sfoggia il cielo con un dito](#)" and of a documentary "Touch Sky", together with the educational workshops in collaboration with "Save the Children" are the main goals of the project.

Project manager: Antonella Gasperini

[Media INAF news](#)



From left, Marco Tavani (INAF President), Marco Galliani, Antonella Gasperini, Mauro Gargano. Credits: INAF

NEW ARRIVALS

PHD STUDENTS

Andrew Alberini



I obtained master's degree, at the University of Florence, in Physics and Astrophysics (specialization in Astrobiology) through a thesis work entitled "Laboratory experiments to support detection of organics on Mars by the NASA Mars 2020 Perseverance rover and future exploration missions of planetary surfaces." Now, I am a PhD student at the INAF Arcetri Laboratory of Astrobiology, under the supervision of Dr. John Robert Brucato and Dr. Teresa Fornaro. Specifically, my research project is focused on the search for traces of extraterrestrial life on the Martian surface, with the main objective of creating an infrared spectroscopy database to support the interpretation of planetary surface studies by space missions.

Edoardo Bellone de Grecis



Winner of the INAF grant in "Adaptive Optics for large telescopes", my project is focused in developing test devices for the control system of "MORFEO", the upcoming multi-conjugate adaptive optics system of E-ELT. I've attended my master's studies in Astronomy and Astrophysics at "La Sapienza" University of Rome. Aiming my studies towards more applicative fields, I had the chance to meet OAA's community and learn from the adaptive optics professionals during my master thesis. Thanks to this project, I had an hands on experience on characterizing a micro-electro-mechanical deformable mirror with my advisors Lorenzo Busoni and Marco De Petris.

Cosimo Marconcini



I graduated on April 2022 at the University of Florence, with a Master thesis focused on implementing a kinematical model to characterise the physical properties of AGN powered outflows. During my PhD I will keep working on this topic with the extragalactic group, supervised by Alessandro Marconi (UNIFI) and Giovanni Cresci (INAF-OAA). In particular, my work focus on analyzing integral field data to improve our understanding of active galactic nuclei feedback at different cosmic times, by constraining the impact of multi-phase outflow on the host galaxy.

NEW ARRIVALS

PHD STUDENTS

Silvia Pagnoscin



I graduated in Physics and Astronomy in September 2022 (University of Florence) with a Master Thesis, supervised by John Robert Brucato (INAF-OAA) and Alice Lucchetti (INAF-OAPD), focused on the search for organics on the Icy Moon of Jupiter, Europa, combining remote sensing and laboratory investigations. During my PhD, still supervised by John Brucato, I will go deep in details on the Astrobiology of the Icy Moons of the Solar System with particular attention on Europa and Enceladus and their subsurface oceans. In addition, I am extremely interested in Communication and Outreach, I am part of the project “Astronuts” and in the last years I gave several talks about Astronomy and Climate Change.

Lorenzo Ulivi



I pursued a master's degree at the University of Florence with a thesis titled “Feedback and Outflows in jetted AGN”, supervised by Giovanni Cresci (INAF-OAA) and Alessandro Marconi (UNIFI). By making use of Integral Field Spectroscopy, I determined the properties of the outflows and I studied new possible mechanisms of AGN feedback by shedding light on the relations between the radio jet and the host galaxy. During my PhD I'm investigating new techniques of machine learning to be applied in actual astrophysical problems. I'm part of “Astronuts”, a science communication project related to Physics and Astrophysics.