



NATIONAL OBSERVATORY OF ATHENS

more than 170 years contribution to research and society



Newsletter

Issue 1, January 2014

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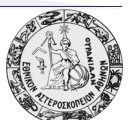
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Message from the President of NOA



The National Observatory of Athens (NOA) is a research center operating under public rules and regulations. It was founded in 1842 with a donation from the national benefactor G. Sinas. NOA's research and scientific activities focus on the Earth's interior and solid crust, the atmosphere, near space and atmospheric universe. Relative basic and applied research is conducted through ground-based and satellite observation and its results are connected to entrepreneurship, culture, education and the popularization of science.

The Observatory offers services like the 24/7 seismicity watch in Greece, early warning of the State and Public about seismic activity, weather forecasting, measurement of ionospheric parameters, a continuous record of historical climatic observations (150 years old) and operation of one of the biggest telescopes in Europe. Its contribution in science education and public outreach is significant through Penteli and Thessio Visitor Centers including the Geostrophysical Museum. NOA is currently constituted of three institutes: the Institute for Astronomy, Astrophysics, Space Applications and Remote Sensing (IAASARS), the Institute of Environmental Research and Sustainable Development (IERSD), and the Institute of Geodynamics (IG). Each one of the institutes is staffed by highly qualified and distinguished scientists.



Compact CV's of the new Directors of IERSD and IAASARS

Professor N. Mihalopoulos

Director of Institute for Environmental Research and Sustainable Development



Prof. Nikolaos Mihalopoulos has been formally appointed as the new Director of the Institute of Environmental Research and Sustainable Development (IERSD) on October 10, 2013.

N. Mihalopoulos is a Professor of Atmospheric Chemistry and Physics at the Department of Chemistry of the University of Crete. He received his PhD in Environmental Chemistry and Physics in 1989 from University Paris 7 (France). He has been research scientist at CNRS and Wuppertal University (Germany) and visiting Professor at MPI (Mainz, Germany) and Sapporo University (Japan). He was awarded a Marie Curie and IKY fellowships for his post

doctorate and doctorate studies.

N. Mihalopoulos is the scientific leader of the Finokalia environmental monitoring supersite which is a reference station for atmospheric observations in the Eastern Mediterranean and member of International bodies such as GAW, EMEP etc. He is in the editorial Board of Atmospheric Chemistry and Physics (ACP, IF=5.52) and acted as guest editor of several special issues in various journals.

N. Mihalopoulos has been the Chairman (2004-2006) and Alternate Chairman (2003-2004 and 2010-2012) of the Department of Chemistry, member of the Senate and member of the research committee of the University of Crete (2002-2009). He acted as President and member of the Environment Committee, NATO (Science for Peace), 2004-2007. He has been member of scientific committees in several International conferences, referee for PhD and habilitation theses at European Universities and research proposal reviewer for international organizations including ERC, NSF, NERC, BMBF, CNRS etc.

Professor V. Charmandaris

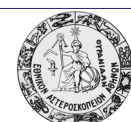
Director of Institute for Astronomy, Astrophysics, Space Applications and Remote Sensing



Vassilis Charmandaris was born in Serres (Greece) in 1967 and completed his undergraduate studies in physics at the Univ. of Thessaloniki in 1989. He continued his graduate studies in the US as a Fulbright fellow obtaining his PhD in Astrophysics from Iowa State University, in 1995. After a postdoctoral appointment at CEA/Saclay (France), where he worked with the group that had built the camera for the Infrared Space Observatory (ISO) of ESA, he was awarded a Marie Curie fellowship and spent two years at the Observatoire de Paris. In 1999 he moved back to the US at the Astronomy Department of Cornell University.

There he worked for 6 years with the group developing the Infrared Spectrograph (IRS) of the Spitzer Space Telescope, which was launched by NASA in August 2003. As of February 2005, he has been a faculty at the Department of Physics of the University of Crete, where he is currently an Associate Professor of Observational Astrophysics. He has also served as the Secretary of the Hellenic Astronomical Society (2006-2010). In September 2013 he commenced his appointment as the Director of the Institute for Astronomy, Astrophysics, Space Applications and Remote Sensing (IAASARS) of the National Observatory of Athens.

The research interests of Prof. Charmandaris are in the general area of observational extragalactic astrophysics. His group at the University of Crete has been focusing on a number of problems related to interacting star-forming galaxies, active galactic nuclei, and galaxy evolution. The main goal of the group is to examine the physical properties of dust and gas in the nuclei of infrared luminous galaxies in order to quantify the contribution of the various mechanisms of energy production in galaxies found in the local and distant Universe. He has been using mainly observations obtained with space infrared facilities (ISO, Spitzer, Herschel) as well as ground based optical and near-infrared telescopes. He has co-authored 167 papers published in international refereed journals, that have received ~7500 citations (h-index=41).



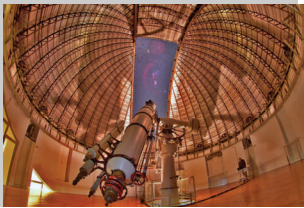


Model of the new building
Geodynamic Institute

Construction of a new building for the G.I. of NOA

Mr Giannis Sgouros, the head of the Attica prefecture signed the decision for funding the construction of a new 2.500 square meters building for the Geodynamics Institute of NOA at Penteli. The long procedure for obtaining this much awaited funding, took years of persistent and systematic efforts by the President of NOA, Professor Kanaris Tsinganos and his staff.

[Read more](#)



The historic telescope «Newall»

Renovation and restoration of the historic Newall telescope

On 21 September 2013 at the premises of the National Observatory of Athens a beautiful inaugural ceremony took place so as to commemorate the renovation and complete restoration of the historic NEWALL telescope, which resumed service after many years at the Visitors Center in Penteli.

The aim of the event was to highlight the importance and contribution of the Newall telescope to the development of astronomy in Greece, and deliver a scientific instrument through which all people will be able to enjoy the magic of astronomy.

[Read more](#)



BEYOND: Building a Centre of Excellence for Earth Observation based monitoring of Natural Disasters

Established in the framework of the FP7-REGPOT-2012-2013-1 Coordination and Support Actions - Theme Area "4.1 Unlocking and developing the research potential of research entities established in the EU's Convergence regions and Outermost regions", the BEYOND project (EC GA No 316210) aims at maintaining and expanding the existing state-of-the-art interdisciplinary research potential, by Building a Centre of Excellence for Earth Observation based monitoring of Natural Disasters in South-Eastern Europe.

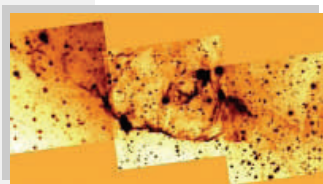
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Smog measurements

Smog and its impact

NOA already participates in the WWF information campaign regarding the problem of smog by burning wood. Additionally, NOA started to record special measurements in the city centre throughout the winter in order to monitor the evolution of the phenomenon and record the level of smog with a series of recorders at the headquarters of NOA at Lofos Nymphon.



The planetary nebula KJPn8

New Greek observatory sheds light on old star

Continuing a tradition stretching back more than 25 centuries, astronomers have used the new 2.3-m 'Aristarchos' telescope, sited at Helmos Observatory (2340m high) in the Peloponnese Mountains in Greece, to determine the distance to and history of an enigmatic stellar system, discovering it to likely be a binary star cocooned within an exotic nebula.

[Read more](#)

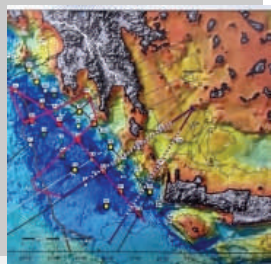




The new web-based application CLIMRUN

Oikoskopio-application for the estimation of future climate change

In collaboration with the World Wide Fund for Nature (WWF) Greece, we have developed an interactive Google-maps based application for the estimation of future climate change indices of relevance to fire risk. The application is hosted in the WWF Greece website of 'oikoskopio' <http://www.oikoskopio.gr/map/> and in the main websites of NOA www.noa.gr (under 'Oikoskopio' tab) and IERSD/NOA at www.meteo.noa.gr (under tab:'web-platform for climate change impacts').



ULYSSE Research Program

ULYSSE Research Program

ULYSSE research program responds to the catastrophe of the unexpected occurrence of the Tohoku subduction giga-earthquake and tsunami in Japan by trying to complete on the SW Hellenic Arc the deep structural investigations missing in Japan, but successfully initiated in Greece (STREAMERS, SEISGREECE, THALES WAS RIGHT). The unexpected giga Japan earthquake and tsunami illustrated that the understanding of seismic hazard in subduction environments is inadequate. Subduction zones are tectonic boundaries where an oceanic plate slides beneath another plate causing the largest earthquakes on Earth (Magnitudes larger than 8). Because these events happen in the coastal domain they often generate destructive tsunami waves.

[Read more](#)



The President of the board of Directors of the MKF Prof. C. Zerefos and the President of the NOA Prof. K. Tsiganos presenting

The anniversary event of Europa Nostra and the Mariolopoulos-Kanaginis Foundation at NOA

The Europa Nostra's European Heritage Congress took place in Athens in June 2013, bringing together Europa Nostra members and representatives of the ever-growing cultural heritage movement from all over Europe. This Congress marked the 50th anniversary of Europa Nostra's continuous action in favour of Europe's cultural heritage. In particular, in June 15th 2013, Europa Nostra celebrated its 50 years of operation in a great event at the national Observatory of Athens.

[Read more](#)



The President of NOA, Prof. Kanaris Tsinganos and the Peru's Ambassador Jorge E. Roman

Peru's Ambassador Jorge E. Roman Morey visited NOA.

On September 27th 2013, Peru's Ambassador Jorge E. Roman Morey visited NOA. During the visit, he expressed the interest of his country in the scientific objects of the Centre such as, in matters concerning the Institute of Environmental Research and Sustainable Development, or the Institute for Astronomy, Astrophysics, Space Applications and Remote Sensing. This idea for cooperation with NOA originated at the request of Peru's National Meteorological and Hydrological service. Their intention is to begin cooperation and to create a platform for the exchange of information and the creation of a scientific network between the institutes of Peru and the institutes of NOA.

Tour of NOA and hospitality of the participants in the International Conference of Magnetospheres of outer Planets

On Wednesday 10th July the more than 100 participants of the "Magnetospheres of the outer Planets" international conference, were hosted at the gardens of NOA at Thission. They visited the Sina museum and telescopes of NOA and they also had a dinner party at the gardens of NOA. The organizer of the conference, prof. S. Krimizis, President of the National Council for Research and Technology and the Researcher of the Academy of Athens Dr. N. Sergis expressed special thanks to the President of NOA and NOA's staff who attended and made possible the tour of the Museum and the telescopes.



Tour at the Museum and the telescopes of the NOA





Workshop "Extragalactic Science with GAIA"

ESA mission "GAIA" Workshop at NOA

ESA's cornerstone Gaia mission will acquire observations of a billion stars and other objects of the Milky Way, resulting in the construction of a three-dimensional stellar map of our galaxy. Gaia will record the spectra of the detected extragalactic objects.

[Read more](#)



From the left, Prof. A. Mastichiadis (Un. Of Athens) with his wife, Françoise Combes (Researcher at the Observatory of Paris), the President of the European Astronomical Society Thierry Courvoisier and the President of NOA, Prof. K. Tsinganos

Hellenic Astronomical Society event at NOA

NOA hosted in its gardens on 10.9.2013, a dinner of the Hellenic Astronomical Society (HeIAS) in the context of the 11th Conference on the occasion of the 20 years of its operation. The Hellenic Astronomical Society, which is the Greek official carrier organization for the professionals engaged in research and teaching on topics of astronomy and astrophysics, organizes every two years an international astronomical conference. This Conference, in which the latest developments in astronomy research are presented, is hosted in a different region of the country each time. The official language of the Hellenic Astronomical Society conferences is English and usually over 100 scientists from Greece and abroad participate in them. The President of NOA served as the previous HeIAS president.



NOA-Chapman University cooperation

NOA-Chapman University cooperation agreement

NOA, represented by its President Prof. Kanaris Tsinganos, and the Center of Excellence in Earth Systems Modeling and Observations (CEESMO) at Chapman University, USA, Minas Kafatos, Director, agreed to promote joint efforts that will lead to the strengthening of cooperation through productive activities in the field of observations, modeling and data analysis for natural disasters and climate change.



81st Session of the Meeting of Presidents of research centers

81st Session of the Synod of Presidents of Greek research centers at NOA

On 27th June 2013 the 81st session of the Synod of Presidents of Hellenic Research Centers was held for the first time at NOA (Sina's Library). In the Synod participated the General Secretary for Research and Technology, the Presidents of all Research Centers as well as representatives of associations of researchers and staff. During the conference, the GSRT Prof. B. Maglaris announced his resignation, while the meeting thanked him for his cooperation. The Synod presented to him 2 books with signatures of members of the session. Then, various topics of the agenda were discussed, such as revision procedures for the project KRIPIS for research infrastructures, the proposals for the national research infrastructures (Roadmap), the organization of events for the six-month Greek Presidency in 2014, improvement of the country's representation in Brussels, framing of national representatives with advisors, etc.



NOA contributed to the 2013 Researcher's Night

Researcher's Night - 2013

The National Observatory of Athens contributed to the Researcher's Night activities organized by the DEMOKRITOS National Center for Scientific Research on 27/9/2013. NOA participated with talks, presentations and demonstrations of measuring devices and software applications.

[Read more](#)





NOA participated in the
78th Thessaloniki International Fair

NOA at the 78th Thessaloniki International Fair

On September 2013, NOA participated in the 78th Thessaloniki International Fair (T.I.F.), where it exhibited its activities in the pavilion of the General Secretariat for Research and Technology. T.I.F. is the most prominent innovation/industrial fair that takes place in Greece and the biggest event of its kind in the Balkan area, with emphasis on innovation in all production sectors.

[Read more](#)

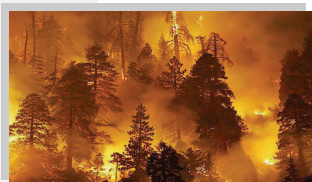


The PROBA 3 space mission

Greek participation is central to new research on the sun!

The University of Athens (Department of Physics and Computer / Telecommunications), National Observatory of Athens and the Greek Aerospace Industry, have been funded by the European Space Agency (ESA) to construct an innovative coronagraph to observe the solar corona, the Sun's outer atmosphere. The Greek research team is collaborating with a large corresponding research group of European universities and research centers in the context of the ESA program. The ASPIICS coronagraph is a unique science instrument of the ESA PROBA 3 (Project for On-board Autonomy) space mission, which will test new techniques and technologies in formation flying demonstration.

[Read more](#)

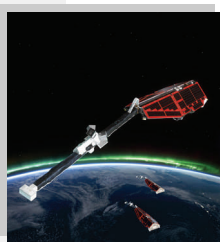


Monitoring and mapping of forest wildfires
in near-real time

Meteosat Second Generation SEVIRI Ground Station System

Since 2007, the Institute has installed and has been using on a 24/7 operational basis a ground station for systematically receiving satellite imagery from the MSG-SEVIRI system maintained by EUMETSAT. The operating agreement for the collection, archiving, and exploitation for research purposes of MSG images, signed between IAASARS/NOA and EUMETSAT, was recently renewed in 2012.

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The SWARM space mission

Participation of NOA in the space mission SWARM (ESA)

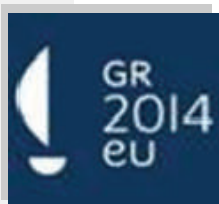
As part of its participation in the SWARM mission (European Space Agency), the research team of Dr. G. Balasis (Institute of Astronomy , Astrophysics , Space Applications and Remote Sensing) of the NOA, has developed an advanced computational tool for analysis of Swarm data, which is based on modern techniques of signal analysis and allows the user to minimise the noise from the instruments that are installed on the platform of each of the three satellites of the mission

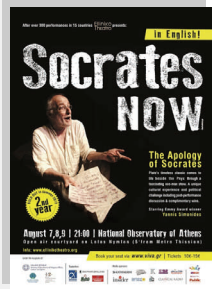
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Opening event of the new European Programme "HORIZON 2020"

Under the Greek Presidency of the European Council in the first half of 2014, the General Secretariat for Research and Technology (GSRT) will hold the opening event of the new European Programme for Research and Innovation "Horizon 2020". The event will be held Friday, January 10, 2014, at the National Centre for Scientific Research "Demokritos" (NCSR "Demokritos").

The event will be honored by the presence of the President of the Republic Karolos Papoulias.





"SOCRATES NOW" at the NOA

"SOCRATES NOW" at the National Observatory of Athens

On the occasion of the 23rd World Congress of philosophy, held in Athens 4-10 August, three performances of the "SOCRATES NOW" theatrical play were scheduled extraordinarily at the National Observatory of Athens. On 7th, 8th and 9th August the timeless work of Plato's Apology of Socrates was animated with directness and humor through the internationally successful solo theatrical SOCRATES NOW, starring John Simonidis. Gazing night Athens, delegates from the five continents, visitors and residents of the capital and NOA had the opportunity to participate in an open discussion following each show, onto the topic of the World Congress: "the philosophy as inquiry and as a way of life".



Astronomical Event in ancient Kassopi

Astronomical Event in ancient Kassopi (Preveza)

The thirty-third Ephorate of prehistoric and classical antiquities, the National Observatory of Athens, the Amateur Astronomy Group of Ioannina, the Athens and Preveza Clubs of Kryopigites and the Municipality of Preveza, organized on Saturday July 27th, 2013 at 8: 30 in the archaeological site of Kassopi (Preveza) an astronomical night.

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more than 170 years contribution to research and society



Lofos Nymphon - Thissio, PO Box 20048 - 11810, Athens

Tel.: +302103490000

Fax: +302103490120

www: <http://www.noa.gr>

NOA e-Newsletter

The National Observatory of Athens (NOA) was founded in 1842 and is the oldest research foundation in Greece. It currently includes three research institutes: the Institute for Astronomy, Astrophysics, Space Applications and Remote Sensing (LAASARS), the Institute of Environmental Research and Sustainable Development (IERSD), and the Institute of Geodynamics (GEIN). Each one of its institutes focuses on well defined and complementary research areas operating a number of facilities, such as telescopes and various sensing stations, located both in the Athens metro area as well as in various places all over Greece.

NOA collaborates with universities both in Greece and abroad, offering training to advanced undergraduates, as well as graduate students and postdoctoral researchers. It hosts the UNESCO Chair for Natural Disasters, operates the National Seismological Network and participates in numerous international research networks. Its museum and historic telescopes are open to the public and they are being used for numerous outreach activities throughout the year.

NEWSLETTER :

*Omiros S. Giannakis
email: og@noa.gr*

*Demetrios Paronis
email: dpar@noa.gr*

*Eleni Christia
email: christia@noa.gr*