iLogs

Muslim Astronomers and Astrophysicists of 21st century

by pakdoc November 03, 2009

Tags: Sports

Muslim scientists and scholars have contributed immensely to human knowledge. Islam has produces several astronomers and astrophysicists in the past centuries. A significant number of stars in the sky, such as Aldebaran and Altair, and astronomical terms such as alhidade, azimuth, and almucantar, are still today recognized with their Arabic names. 21st century advances in this field also have contributions from the muslim world. I have compiled a short list of distinguished and outstanding present day muslim scientists involved in space exploration.

1. Dr. Essam Heggy: is staff scientist at the Space and Planetary Science Division of the Institute of Earth Physics in Paris (IPGP-CNRS), France, and visiting scientist with the Lunar and Planetary Institute at NASA's Johnson Space Center in Houston, Texas, USA. Heggy specializes in using ground-penetrating radar (GPR) to detect and identify water and objects buried deep in the ground. He is involved in a number of projects with NASA and the European Space Agency (ESA). The first project involves the Sub-Surface Sounding Radar Altimeter (MARSIS) equipment on board the Mars Express Orbiter, currently taking subsurface images of Mars. The second project involves the development of the ground-penetrating radar onboard ExoMars, a rover set to land on Mars in 2012.

2. Dr. Ahmed Kamal Sultan Salem: Former researcher at Stanford University's Space, Telecommunications, and Radioscience Laboratory (STARLab). Salem's research is focused on planetary remote sensing to make inferences about the structure and composition of planetary surfaces. In the technique used by Salem, radio waves are emitted by earth-based or spaceborne antennas towards the objects being studied such as the surface of a planet or a moon. The scattered radio waves that return as a result are picked up so that pieces of information can be integrated with results from other remote sensing techniques to increase our knowledge of the solar system and the geologic history of its planets and moons. Salem applied the models he developed during his PhD work on data acquired from the surface of Venus obtained by the Magellan spacecraft between 1990 and 1994, and to data from the surface of Titan obtained by the Arecibo Observatory and Cassini spacecraft in orbit round Saturn since 2004

3. Dr. Alaa Ibrahim: works with the Lab for High Energy Astrophysics at NASA's Goddard Space Flight Center in Maryland, USA. Ibrahim has been the lead scientist on a number of discoveries since 2000 which have proved the existence of Magnetars, previously theorized highly-magnetic neutron stars. He has shown Magnetars to be the most powerful sources of magnetic energy in the Universe so far known to man-kind, the effects of which sometimes reaching us on Earth even at a distance 45,000 light years away.

4. Dr. Mohamed Sultan: is professor and chairman of the Department of Geosciences at Western Michigan University in Michigan, USA, and the Director of the Earth Sciences Remote Sensing Lab at the same university. Over the years he has occupied a number of positions at Washington University, University of Illinois, and the State University of New York at Buffalo in the United States; at Cairo University in Egypt; and as Senior Research Scientist at NASA's Earth and Planetary Remote Sensing Laboratory at the McDonnell Center for the Space Sciences in Washington University, Missouri, USA. Specialized in a number of fields including geology, stratigraphy, geochemistry, and remote sensing, Sultan takes an interdisciplinary approach in his work to study the Earth's environment and structure. He is also involved in assembling interdisciplinary geographic information system (GIS) databases where several disciplines would store information about a certain Earth structure in an integrated and coherent manner, adding more depth to the area under study

5. Dr. Ahmed Noor: Director of the NASA-funded Center for Advanced Engineering Environments (CAEE) at Old Dominion University. An Eminent Scholar and William E. Lobeck Professor of Aerospace Engineering at Old Dominion University, Virginia, USA, he is also adjunct Professor of Mechanical and Aerospace Engineering, University of Florida, Gainesville, and the Florida Space Research Institute Distinguished Scholar of Advanced Learning Systems. He taught at Stanford University (USA), Cairo University (Egypt), University of Baghdad (Iraq), the University of New South Wales (Australia), George Washington University (USA) and the University of Virginia (USA) before joining Old Dominion University.Noor is a Fellow of the National Institute of Aerospace and of five professional

societies: the American Institute of Aeronautics and Astronautics, American Society of Mechanical Engineers, American Society of Civil Engineers, the American Academy of Mechanics, and the U.S. Association for Computational Mechanics (USACM). He is a Founding Member of both the International and U.S. Associations of Computational Mechanics, and is a Past President of USACM. Noor is also a regular contributor to a large number of publications including Aerospace America, The International Journal of Engineering Education, Mechanical Engineering, Innovation in Engineering Computational Technology, and Advances in Engineering Software.

6. Shadia Rifai Habbal: holds a chaired professorship in solar-terrestrial physics at the University of Wales in Aberystwyth, and she is also a research physicist at the Harvard-Smithsonian Center for Astrophysics. She is one of three editors of the Journal of Geophysical Research--Space Physics. Her present research attempts to understand the source and acceleration of the solar wind by connecting theory with observations. She is one of the five nominees for this year's Asian Women of Achievement Awards.

7. Dr. Sultana Nurun Nahar: is a senior research scientist at the Ohio State University in the field of atomic astrophysics. Dr. Nahar has been working on research for photoionization, electron-ion recombination, radiative transition probabilities, electron-ion scattering, theoretical spectroscopy, computational nanospectroscopy for biomedical applications, and development of theories and programs for state-of-the art methods for atomic parameters, currently dielectronic satellite lines in astrophysical plasmas. She is a member of the international collaborations of the Opacity Project and the Iron Project to calculate accurate atomic parameters for astrophysically abundant atoms and ions. Based on her work on atomic processes of Iron, Nahar is also called "The Iron Lady"by astronomers. Physicists and astronomers around the world use her computationally intensive mathematical models of the iron atom when interpreting complicated spectra produced by high-energy astrophysical processes, such as those that occur near black holes at the centers of active galaxies.

8. Arif Babul: Distinguished Professor and Director, Canadian Computational Cosmology Collaboration, Dept of Physics and Astronomy, University of Victoria - an Astrophysiscist involved in research pertaining to Formation and Evolution of Galaxies and Clusters of Galaxies, to understand how the various components (gas, dark matter, galaxies and stars) mix and mingle, and give rise to the observed cosmic sculptures.

Please login to comment

Comments / interact

#2 **pakdoc** November 04, 2009 14:27
u hindus r sooooo ignorant..... another ilog coming up..to entertain and educate u :)

modern astronomy owes its birth to muslims!

#1 **laddu** November 04, 2009 00:44
What the heck has their contribution to do with their being muslim??

It is all because of the non-muslim and kafir education that they have obtained.

Islam does not believe in modern astronomy at all. The earth is FLAT and God sitas on the throne of heaven.

Refresh comments list
RSS feed for comments to this post