



Ecole Internationale Daniel Chalonge



22 July 2011: The Daniel Chalonge Medal 2011 has been awarded to John Mather

The International School of Astrophysics "Daniel Chalonge" has awarded the Daniel Chalonge Medal 2011 to **Dr. John Mather**, Nobel Laureate 2006 for the outstanding results of the COBE satellite.

Dr. John C. Mather is a Senior Astrophysicist in the Observational Cosmology Laboratory at the NASA Goddard Space Flight Center (College Park -Mariland, USA).



The medal was awarded to John Mather in recognition to his huge contribution to the modern cosmology and in particular for his outstanding effort in promoting and leading key missions for the study of the Universe, as COBE and now the James Webb Space Telescope, both deeply discussed in the frame of the International Astrophysics School D. Chalonge. The scientific activity of John Mather inside NASA, recognized with the Nobel Prize in 2006, has allowed the realization of very important projects devoted to the infrared cosmology and the training and formation of young physicists and astrophysicists.



John Mather's research centers on infrared astronomy and cosmology. As an NRC postdoctoral fellow at the Goddard Institute for Space Studies (New York City), he led the proposal efforts for the Cosmic Background Explorer (1974-1976), and came to GSFC to be the Study Scientist (1976-1988), Project Scientist (1988-1998), and also the Principal Investigator for the Far IR Absolute Spectrophotometer (FIRAS) on COBE. He showed that the cosmic microwave background radiation has a blackbody spectrum within 50 ppm. As Senior Project Scientist (1995-present) for **the James Webb Space Telescope**, he successfully

leads the science team, and represents the scientific interests within the project management.

John Mather also contributed to the ground observation programs leading advisory and working groups for the National Academy of Sciences, NASA, and the NSF (for the ALMA, the Atacama Large Millimeter Array, and for the CARA, the Center for Astrophysical Research in the Antarctic).

John Mather is author of numerous publications related to astrophysics and cosmology.

A surprise Award

The Chalonge Medal is a totally surprise award. The medal was presented to John Mather on July the 22th 2011 during the last and open session of the 15th Paris Cosmology Colloquium at the Paris Observatory (Observatoire de Paris), attended by about hundred participants from over the world. John Mather brilliantly presented the NASA **Program James Webb Space Telescope (JWST)**, the large infrared-optimized space telescope planned to operate from 2018 as the best successor for the Hubble and Spitzer Space Telescopes. The Chalonge Medal represents too a warm acknowledgement and support to Dr. John Mather present and future activities in the JWST



Only eight Chalonge Medals awarded in the 20-year school history

John Mather received the eighth medal the school has awarded in its 20-year history. The first medal was awarded in 1991 to astrophysicist and Nobel prize of Physics Subramanyan Chandrasekhar (1910-1995), who was a great friend of Daniel Chalonge and delivered the school's inaugural lecture in 1991 "Daniel Chalonge and the Problem of the Abundance of the Hydrogen". The second medal was awarded in 1992 to the distinguished high-energy physicist Bruno Pontecorvo (1913-1993), a pioneer of neutrino physics, including neutrino oscillations and "sterile" neutrino, and a major supporter and lecturer at the school. The third medal was awarded in 2006 to cosmologist and Nobel prize of Physics 2006 George F. Smoot, who is at the center of the Chalonge School since its creation. George Smoot has the original copy of the medal: the noted french sculptor who designed the medal, Madeleine Pierre Quérolle, today aged 95 and always active in her Parisian workshop, offered her own original copy of the medal for the third award presentation to George Smoot. Motivated by the Nobel prize of Physics 2006 and the success of the Chalonge School, the French Mint coined in february 2007 exclusively for the Chalonge School a second limited edition of the medal. This made possible the 2007, 2008 and present presentations of the Medal. Science with great intellectual endeavour and a human face. True and healthy science. Outstanding scientists who are gentlepersons. Scientists recipients of the Daniel Chalonge Medal (Subramanyan Chandrasekhar, Bruno Pontecorvo, George Smoot, Carlos Frenk, Anthony Lasenby, Bernard Sadoulet, Peter Biermann and John Mather) are recognized Ambassadors of the School.



The Daniel Chalonge Medal was designed by the noted french sculptor and artist painter Madeleine Pierre Quérolle and coined by the Hôtel de la Monnaie de Paris (the French Mint). The first side of the medal shows Daniel Chalonge's portrait. The reverse side is composed of two scenes: the upper half depicts the mirror of a telescope on which a part of the Milky Way and the Orion constellation is reflected. The lower half depicts the French Alps and the "Pic Chalonge", (the mountain, 3343 m height, named after him).

Daniel Chalonge

The School is named after the pioneering French astrophysicist Daniel Chalonge (1895-1977) for his work in experimental and theoretical astrophysics. Precursor in France of the introduction of modern physics in astronomy, stellar spectroscopy and stellar and atmospheric spectrophotometry, he worked on the conception and construction of new instruments like the hydrogen tube, the spectrographe to reach

the far ultraviolet spectra and the microphotometer named after him. He was a personality of his time, one of the founders of the Institut d'Astrophysique de Paris. He was at the center of international colloquia being great friend and colleague of S Chandrasekhar, Zwicky, Ambartsumian, Blackett, Oort, and many others. He worked at the Observatoire de Paris, at the Observatoire d'Haute Provence, and at the Jungfrauoch Scientific Station in Switzerland, where particle physics experiments (such as the Manchester-Cern collaboration) were performed.

Congratulations

Scientists from over the world participated to the event and congratulated John Mather for being awarded with the Daniel Chalonge Medal. With the Chalonge Medal, the International School of Astrophysics Daniel Chalonge confirms its great appreciation to Dr. John Mather contribution to cosmology, recognizes the outstanding scientific value and impact of the James Webb Space Telescope (JWST) project and strongly supports its development and successfull completion. An special statement in support to the JWST has been formulated by the Chalonge School on this occasion.





<http://www.chalonge.obspm.fr/colloque2011.html>

John Mather's Lecture 2011 http://www.chalonge.obspm.fr/Paris11_Mather.pdf

Photo Gallery <http://www.chalonge.obspm.fr/album2011/album/index.html>

<http://www.chalonge.obspm.fr/albumopensesion2011/index.html>

The James Webb Space Telescope <http://www.jwst.nasa.gov/>

Arkives Daniel Chalonge

http://chalonge.obspm.fr/Archives_Daniel_Chalonge.html

The Daniel Chalonge Medal in the French Senate, 50th Anniversary of Sputnik

<http://planetastronomy.com/special/2008-special/09oct07/spoutnik-senat.htm>

<http://www.starlight2007.net/spoutnikes.htm>

The Chalonge School <http://chalonge.obspm.fr>