

## Curriculum Vitae of Felix A. Aharonian

**Birth day/place:** May 23, 1952, Yerevan, Armenia (former USSR)

**Current Positions:** Professor of Astrophysics, Dublin Institute  
for Advanced Studies, Dublin Ireland  
and  
Head of High Energy Astrophysics Theory Group,  
Max-Planck-Institut fuer Kernphysik, Heidelberg, Germany

**Fields of Research:** High Energy Astrophysics, Astroparticle Physics, Cosmology

**Education and Degrees:** 1975: Master (Moscow Engineering-Physics Institute)  
1979: PhD (Moscow Engineering-Physics Institute)  
1987: Doctor of Science (Yerevan Physics Institute)

### Involvement in major Projects:

Member (representative of ESA) of the Science Working Group  
of the JAXA-NASA X-ray mission ASTRO-H (*X-ray Astronomy*)

Member of the H.E.S.S. Collaboration Board (*gamma-ray astronomy*)

Member of the KM3NeT Consortium Board (*neutrino astronomy*)

Co-PI of the ROTSE network of optical telescopes (*GRB afterglows*)

### Panels, Committees, Schools, ...

Co-director of LEA - European Associated Laboratory on High Energy Astrophysics  
jointly supported by CNRS (France) and MPG (Germany)

Scientific Advisor of the High Energy Astrophysics Laboratory, Yerevan, Armenia

Member of Scientific Committee and Adjunct Professor of the International Center  
for Relativistic Astrophysics, Rome/Pescara, Italy

Member ("Supervisor") of the Heidelberg Graduate School of Fundamental Physics,

Member of the International Review Board of the Helmholtz Association on  
"Astroparticle Physics"

Member of the European ASTRONET Infrastructure Roadmap Panel A:  
"High energy astrophysics, astro-particle physics and gravitational waves"

Editor of the International Journal of Modern Physics D

## Current PostDocs and Students

- three *MPG* postdoctoral fellows (MPIK/Heidelberg)
- a *Alexander von Humboldt postdoctoral* fellow (MPIK/Heidelberg)
- three *Marie Curie* postdoctoral fellows (DIAS/Dublin, and MPIK/Heidelberg)
- two *LEA* postdoctoral fellows (MPIK/Heidelberg)
- two *Schroedinger* postdoctoral fellows (DIAS, Dublin)
- an *IRCSET* postdoctoral fellow (DIAS, Dublin)
- two *PhD student* in Heidelberg and three *PhD students* in Dublin

## Lectures:

*Introduction to Gamma Ray Astronomy*  
(University College Dublin, Spring 2007)

*Radiation processes in High Energy Astrophysics,*  
(Trinity College Dublin, Winter 2008)

*High energy processes in relativistic Outflows,*  
(La Plata University, Argentina, March 2008)

*High Energy Phenomena on Galactic and Extragalactic Scales,*  
(Nagoya University Winter School, Japan, February 2009),

*Frontiers in High Energy Astrophysics,*  
(27th Jerusalem Winter School in Theoretical Physics, Jerusalem, Israel,  
Dec 2009 – Jan 2010)

*Astrophysics at Very High Energies,*  
(40th Saas-Fee advanced course, Grindelwald, Switzerland, March 2010)

**Publications:** approximately 300 papers in peer review journals  
(see <http://www.mpi-hd.mpg.de/astrophysik/HEA/1024.html>)

### Recent invited review articles:

F.A. Aharonian, J. Buckley, T. Kifune, G. Sinnis “High energy astrophysics with ground based gamma ray detectors”, *Reports on Progress in Physics*, 2008, **71**,096901

F.A. Aharonian, “Motivations and Objectives of VHE Gamma Ray Astronomy”, *Physics Reports*, to be submitted

F.A. Aharonian, W. Hofmann, S. Ritz “High-Energy Gamma-Ray Astronomy”, *Annual Review of Nuclear and Particle Science*, in preparation

*Recent articles for broad audience:*

F.A. Aharonian, "The Very-High-Energy Gamma Ray Sky", *Science*, 2007, **315**, 70

F.A. Aharonian, "High Energy Astrophysics", *UNESCO Encyclopedia*, 2009

F.A. Aharonian and M. Chernyakova "Gamma Asronomiya" (in Russian)  
*Zemlya i Vselennaya*, 2009, in press

**Books:**

F. A. Aharonian "Very high energy cosmic gamma radiation : a crucial window on the extreme Universe", River Edge, NJ: World Scientific Publishing (512pp), 2004

F. A. Aharonian and S.R. Kelner "Radiation Processes in High Energy Astrophysics", Oxford University Press, in preparation

F. A. Aharonian "Very high energy cosmic gamma radiation : a crucial window on the extreme Universe", World Scientific Publishing, second edition, in preparation

**Conference Proceedings:**

H.J. Volk and F.A. Aharonian (editors): "TeV Gamma Ray Astrophysics",  
Kluwer, Academic Publishers, Dordrecht, 1996

F.A. Aharonian and H.J. Volk (editors): "High Energy Gamma-Ray Astronomy-1",  
*AIP Conf. Proc.*, vol. 559, Melville, New York, 2001.

F.A. Aharonian, H.J. Volk, D. Horns (editors): "High Energy Gamma Ray Astronomy-2",  
*AIP Conf. Proc.*, vol. 745, Melville, New York, 2005.

F.A. Aharonian, F. Rieger, J.M. Paredes, G. Romero (editors): "High Energy Phenomena in Relativistic Outflows", *International Journal of Modern Physics*,  
World Scientific, vol. 17 (no 9&10), 2008

F.A. Aharonian, W. Hofmann, F. Rieger (editors): "High Energy Gamma Ray Astronomy-3",  
*AIP Conf. Proc.* 1085, Melville, New York, 2009

E. Resconi, F.A. Aharonian (editors): "'High-Energy Neutrinos from Extragalactic sources", *International Journal of Modern Physics*, in preparation

## **Organization of International Workshops, Symposia, Conferences (2006-2009)**

2006: Convener of three sessions on “Astroparticle Physics”, “Gamma Ray Astronomy” and “Neutrino Astronomy” during the XXIII Symposium on Relativistic Astrophysics, Melbourne, Australia, December 2006

2007: Chair of SOC of the International workshop High Energy Phenomena in Relativistic Outflows", Dublin, September 2007

2008: Co-Chair of OC of the International workshop on Nonthermal hadronic processes in Galactic Sources", Heidelberg, January 2008

Chair of SOC of the 4th International Symposium on High Energy Gamma Ray Astronomy, Heidelberg July, 2008

2009: Co-Chair of OC of the International workshop on High Energy Gamma Rays and Neutrinos from Extragalactic sources, Heidelberg, January 2009

Convener of the session on Gamma Ray Astronomy" during the 12th Marcel Grossmann Meeting on Relativistic Astrophysics, Paris, France, July 2009

2010: Chair of SOC of 25<sup>th</sup> (“TEXAS”) International Symposium on Relativistic Astrophysics, Heidelberg, Dec 2010

## **Member of Scientific Organizing Committees (SOC) of scientific meetings:**

**2006:** *The variable gamma-ray sources: their identifications and counterparts* (Elba Island, Italy, June 2006), *Challenges of Relativistic Jets* (Cracow, Poland, June 2006), *The Multi-Messenger Approach to High-Energy Gamma-Ray Sources* (Barcelona, Spain, July 2006)

**2007:** *The light of the dark: solving the mysteries of the Universe* (Villa Mondragone, Frascati, Italy, June 2007), *RICAP'07: Roma International Conference on Astroparticle physics* (Roma, Italy, June 2007), *High-Energy Astrophysics: the keV-TeV connections*, JENAM 2007 Symposium No. 4 (Yerevan, Armenia, August 2007), *TeV Particle Astrophysics III* (Venice, Italy, August 2007)

**2008:** *High-Energy Acceleration Processes in Supernova Remnants, PWNe, MicroBlazars and Binaries: the keV to TeV Connection and Astrophysical Studies of Neutron Stars from Multi-wavelength Observations* (both symposia as part of the

37th COSPAR Scientific Assembly, Montreal, Canada, July 2008), *TeV Particle Astrophysics IV* (Beijing, China, Sep 2008), *Science with the New Generation of High Energy Gamma-Ray Experiments* (Padova, Italy, Sep 2008)

**2009:** *Thirty Years of Magnetars: New Frontiers* (Aspen, USA, Feb 2009), *International Conference in honor of Ya. B. Zeldovich 95th anniversary* (Minsk, Belarus, April 2009), *RICAP'09: Roma International Conference on Astroparticle Physics* (Villa Mondragone, Frascati, Italy, May 2009), *Testing Astroparticle with New GeV/TeV observations* (Paris, France, May 2009), *TeV Particle Astrophysics V* (Stanford University, USA, Aug 2008), *The Extreme sky: Sampling the Universe above 10 keV* (Otranto, Italy, Oct 2009), *High Energy Phenomena in Relativistic Outflows II* (Buenos Aires, Argentina, Oct 2009)