

**Invited talks of F.A. Aharonian at international meetings (last five years) :**

1. *Probing Supernova Remnants, Black Holes and Dark Matter with TeV Gamma Rays*, plenary talk at the American Physical Society Annual Meeting, Tampa, USA, April 2005.
2. *TeV radiation from the Black Hole in the Galactic Center*, invited talk at the Intern. Conference on "The Paradoxes of Massive Black Holes", Santa Barbara, USA, April 2005.
3. *Next Generation of IACT Arrays: Scientific Objectives versus Energy Domain*, invited talk at the Intern. Conference on "Towards a Network of Atmospheric Cherenkov Detectors", Paris, France, April 2005.
4. *5@5*, invited talk at the Intern. Workshop on "Astroparticle Physics", Swiss Institute for Particle Physics, Versoix, Switzerland, May 2005.
5. *High Energy Stereoscopic System of Atmospheric Cherenkov Telescopes*, invited talk at Intern. Workshop "Astrophysics of Ultra-high Energy Cosmic Rays, Photons, and Neutrinos", Santa Barbara, USA, May 2005.
6. *Possible sites and mechanisms of TeV Gamma Ray Emission in the Galactic Center*, invited review talk at Intern. Conf. "High Energy Phenomena in the Galactic Center" Paris, France, June 2005.
7. *Astrophysics and Cosmology with TeV Gamma Rays*, invited review talk at Intern. Workshop. "TeV Particle Astrophysics-I" Fermilab, USA, July 2005.
8. *Gamma Ray Sources*, plenary talk at the 9th Intern. Conference "Topics in Astroparticle and Underground Physics " (TAUP 2005), Zaragoza, Spain, September 2005.
9. *TeV Gamma Ray - Neutrino Connections*, invited talk at the Inter. Workshop "Very Large Volume Neutrino Telescopes", Catania, Italy, November , 2005.
10. *Astrophysics with HESS*, invited talk at the American Astronomical Society 2006 meeting, Washington, USA, January 2006.
11. *Very High Energy Particle Production in Supernova Remnants*, invited talk at Intern. Conference "Supernova and Gamma Ray Burst Remnants", Santa Barbara, USA, February 2006.
12. *High-energy Gamma Rays*, invited talk at the Conference "Cosmology,

Galaxy Formation and Astroparticle Physics on the Pathway to the SKA", Oxford, UK, April 2006.

13. *TeV Astronomy*, invited talk at the American Physical Society annual meeting, Dallas, USA, April 2006.
14. *Galactic Sources of High Energy Neutrinos*, invited talk at XXII Conf. "Neutrino Physics and Astrophysics", Santa Fe, USA, June 2006.
15. *Energetic Hadrons in Astrophysical Jets*, invited talk at the Intern. Conference "Challenges of Relativistic Jets", Cracow, Poland, June 2006.
16. *Galactic gamma-ray sources at VHE energies*, invited talk at "The Multi-Messenger Approach to High Energy  $\gamma$ -ray Sources", Barcelona, July 2006.
17. *Relativistic Outflows as effective particle accelerators and  $\gamma$ -ray sources*, invited talk at "HEAD 06" meeting, San Francisco, USA, October, 2006.
18. *Why gamma-ray astronomy above 10 TeV?*, invited talk at the workshop "Locating Cosmic PeVatrons", Adelaide, Australia, Dec 2006.
19. *VHE Gamma Ray Astronomy*, invited talk at the Conference "High Energy Astrophysics - Perspectives", Moscow, Russia, Dec 2006.
20. *ACT experiments and the origin of cosmic rays*, plenary talk at Workshop on "Ultra-high energy cosmic rays, neutrinos and photons", Pennsylvania State University, USA, May 2007.
21. *On the potential and objectives of ground based gamma-ray astronomy*, invited talk at the Workshop "The light of the dark: solving the misteries of the Universe", Villa Mondragone, Frascati, Italy, June 2007.
22. *The Very High Energy Gamma Ray Sky*, plenary talk at "JENAM07" (Joint (European and National Astronomy Meeting), Yerevan, Armenia, Aug 2007.
23. *Future of High Energy Gamma ray Astronomy*, plenary talk at "10<sup>th</sup> ICATPP Conference on Astroparticle, Particle, and Space Physics, Detectors", Como, Italy, October 2007.
24. *The TeV Universe*, invited talk at "High Energy in Space", Palermo, Italy, October 2007.
25. *Astrophysics and Particle Physics with TeV gamma rays: Implications and Prospects*, introductory talk at the IOP (Institute of Physics) meeting, Leeds, UK, December 2007.

26. *Theory: general remarks*, introductory talk at the workshop "Non-Thermal Hadronic Processes in Galactic Sources", Heidelberg, Germany, January 2008.
27. *Supernovae and SNR*, invited talk at the conference "Challenges in Particle Astrophysics", Chateau de Blois, France, May 2008.
28. *Theoretical aspects of Very High Energy Gamma Ray Astronomy*, invited talk at the APP UK 2008 Conference, Oxford, UK, June 2008.
29. *Exploring cosmic accelerators with gamma-rays and neutrinos*, invited talk at CRIS 2008 "Origin, mass composition and acceleration mechanisms of Highest Energy Cosmic rays, Malfa (Eolian Islands), Italy, September 2008.
30. *Status of Gamma Ray Astronomy*, plenary talk at the "2008 TeV Particle Astrophysics international workshop", Beijing, China, September 2008.
31. *Potential of Ground Based Gamma Ray Astronomy*, invited review talk at Inter. Workshop "Science with the New Generation of High Energy Gamma-Ray Experiments", Padova, Italy, October 2008.
32. *Probing Cosmic PeVatrons with hard X-rays and low-energy gamma rays*, "Joint Gamma-ray Mission Meeting 2009", Tokyo, Japan, March 2009.
33. *Multi-messenger approach*, review talk at the CHIPP (Swiss institute for Particle Physics) workshop "Astroparticle Physics", Lausanne, June 2009
34. *Gamma-ray/X-ray astrophysics and future directions*, invited review talk at Australian Astronomical Society Annual Meeting, Melbourne, July 2009
35. *Gamma Ray Astrophysics*, invited plenary talk at the 12th Marcel Grossmann Meeting, Paris, France, July 2009.
36. *VHE emission from neutron stars and the surrounding environments*, invited talk at the symposium "Neutron stars: timing in extreme environments", XXVII IAU General Assembly, Rio de Janeiro, Brasil, August 2009.
37. *H.E.S.S. experiment*, invited talk at the Intern. Workshop "The Extreme sky: Sampling the Universe above 10 keV", Otranto, Italy, Oct 2009.
38. *Nonthermal radiation from SNRs*, invited talk at the Workshop on "Shock Waves, Turbulence, and Particle Acceleration", Pohang, Korea, Nov 2009.
39. *Relativistic plasmas in the Universe*, invited plenary talk at the International Conference on "Plasmas in the Laboratory and in the Universe: interactions, patterns, and turbulence", Como, Italy, Dec 2009

### **Colloquia (2005-2008):**

- Recent HESS results*, Stanford University, USA,  
April 2005 (Astrophysics Seminar)
- The Fascinating TeV Sky*, Astronomy University of California, Berkeley, USA,  
April 2005 (Astronomy Colloquium)
- Astrophysics and Cosmology with TeV Gamma Rays*, FERMILAB, USA,  
July 2005 (Fermilab Colloquium)
- TeV Astrophysics*, Notre Dame University, USA,  
July 2005 (Physics Colloquium)
- Cosmology with HESS*, The University of Chicago, USA,  
January 2006 (Astronomy Colloquium)
- Galactic and Extragalactic Sources of TeV Gamma Rays*, CALTECH, Pasadena, USA,  
February 2006 (Physics Colloquium)
- Gamma Ray Astronomy*, Sapienza University of Rome, Italy,  
March 2006 (Physics Colloquium)
- Status and future of Ground Based  $\gamma$ -Ray Astronomy*, University of Barcelona, Spain,  
April 2006 (Physics Colloquium)
- Astrophysics and Cosmology with HESS*, CITA, University of Toronto, Canada,  
June 2006 (CITA Colloquium)
- Very High Energy Gamma-Ray Observations with HESS*, MPIfR, Bonn, Germany,  
January 2007 (Astronomy Colloquium)
- Very high energy gamma ray sources*, Leiden Observatory, Holland,  
February 2007 (Astronomy Colloquium)
- Recent results from HESS*, MIT, Cambridge, USA,  
March 2007 (MIT Astrophysics Colloquium)
- Supernova Remnants and Pulsar Driven Nebulae*, Harvard University, USA,  
March 2007 (Harvard-Smithsonian Astrophysics Center Colloquium)
- Gamma Ray Astronomy: Status and Perspectives*, CALTECH, Pasadena, USA  
March 2007 (Astronomy Colloquium).

*Next generation ground-based gamma-ray detectors: scientific motivations, potential and perspectives*, Stanford University, USA,  
May 2007 (ACKS Seminar)

Exploring the TeV sky, Roma Astronomical Observatory, INAF, Italy,  
June 19, 2007 (Colloquium)

*High Energy Gamma Ray and Neutrino connections*, National Institute for Nuclear and High Energy Physics, Amsterdam, Holland,  
April 11, 2007 (NIKEF colloquium)

*The TeV domain of cosmic electromagnetic spectrum*, Columbia University,  
New York, USA, May 2008 (Columbia Physics colloquium)

*Very High Energy Gamma-Ray Sources*, Princeton Institute for Advanced Study,  
Princeton, USA, May 2008 (Princeton Astrophysics Seminar)

*Cosmology with High Energy Gamma Rays*, New York University, New York, USA  
May 2008 (Astrophysics and Relativity Seminar)

*Exploring Extreme Cosmic Accelerators with gamma-rays, neutrinos and hard X-rays*,  
Leeds University, Leeds, England March 2008 (Physics Department Seminar)

*Nature's Extreme Particle Accelerators*, KIT (Karlsruhe Institute of Technology),  
Karlsruhe, June 2009