Hernán Asorey

G. de Investigación en Relatividad y Gravitación
G. Halley de Astronomía y Ciencias Aeroespaciales
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Personal Information

Born in Quilmes, Buenos Aires, Argentina, on February 05th, 1974 (40 years old)
Argentinian, married, two daughters.

Current Positions

Post-doctoral position at Grupo de Investigación en Relatividad y Gravitación and at Grupo Halley de Astronomía y Ciencias Aeroespaciales, Physics Department, Universidad Industrial de Santander, Bucaramanga, Colombia.

Assistant Professor at Physics Department, Universidad Industrial de Santander, Bucaramanga, Colombia.

Permanent Position at Laboratorio de Detección de Partículas y Radiación, Gerencia de Tecnología e Investigación en Altas Energías (Technology and Research in High Energy Physics Department), Bariloche Atomic Centre, National Commission of Atomic Energy (CNEA)

Education

2012 Doctor in Physics (Ph.D.)
Institution: Particles and Fields Group, Bariloche Atomic Centre - Instituto Balseiro, CNEA-UNC. *Thesis*: The Water Cherenkov Detectors of the Pierre Auger Observatory and their
2005 Application to the Study of Background Radiation. *Advisor*: Dr. Ingomar Allekotte. Master in Science, Physics
Orientation: High Energy Physics. *Institution*: Particles and Fields Group, Instituto Balseiro, Bariloche Atomic Centre (CNEA-UNC). *Thesis*: Event Reconstruction with the Surface Detectors of the Pierre Auger Observatory. *Advisor*: Dr. Ingomar Allekotte
2004 "Licenciado" in Physics
Institution: Instituto Balseiro, Bariloche Atomic Centre (CNEA-UNC)

Research & Teaching Activities

Since I have earned my master degree in December 2005, I have been involved in the following projects:

Pierre Auger Observatory

See www.auger.org

Member of the Pierre Auger Collaboration since 2006

Task leader of the "Cosmo-Geophysics" task of the Pierre Auger Observatory

Ultra High-Energy Cosmic Rays Physics

Data analysis of the Surface Detector

Development of the reconstruction event chain of the Surface Detector

Development and applications of the low energy modes (scaler and histogram modes) of the surface detectors of the Pierre Auger Observatory, for the study of transient events (Gamma Ray Bursts and Forbush events), and short and long term modulation of the galactic cosmic rays flux due to solar activity

CORSIKA and detector simulations, oriented to determine the water-Cherenkov response working in the low energy modes

Data analysis of the weather monitoring system of the Pierre Auger Observatory

Large Aperture GRB Observatory (LAGO)

Declared of Scientific, Academic and Social interest by the Honourable House of Representatives of the Rio Negro Province, Dec. 42/2010.
See http://fisica.cab.cnea.gov.ar/particulas/laboratorio/lago

Principal Investigator since 2013

Country Representative - Argentina (2012-2013)

Member of the LAGO International Collaboration since 2006

Simulations and data analysis for the detection of transient events (GRB and Forbush events), background radiation and atmospheric physics.

Research, development and building of three water-Cherenkov detector prototypes for the LAGO project at Bariloche Atomic Centre. One of them will be installed at the Antarctic Peninsula.

Design and coordination of the experiment "Measurement of Muon Lifetime in Water", done by undergraduate students at Instituto Balseiro.

Cherenkov Telescope Array (CTA)

See www.cta-observatory.org

Member of the CTA consortium since 2010

San Antonio de los Cobres site characterization

Research and development of the autonomous station for control and data acquisition of the weather station and sky quality meter installed in San Antonio de los Cobres, Argentina, one of the site candidates for the CTA observatory.

ANDES Underground Laboratory

See www.andeslab.org

Estimation and measurements of the expected backgrounds at the ANDES underground lab due to natural radioactivity and high energy atmospheric muons

Teaching

See www.ib.edu.ar, www.uis.edu.co, and www.unrn.edu.ar

Professor, Introductory Physics course and Introductory Particle Physics course, UIS.

Professor, Advanced Mathematical Methods for Physics course, UIS.

Senior teaching assistant, Physics I (introductory physics) course, UNRN.

Teaching assistant, Experimental Physics III and Introduction to nuclear and particle physics courses, Instituto Balseiro (UNC)

Additional Information

Languages: Spanish (Native); English (Level B2); French

Computing skills: Linux and Windows operative system. Preferred editor: VIm.

Programming skills: C/C++, Perl, Python, HTML, PHP, SQL, and Bash.

Technical computing and data analysis software skills: root, gnuplot, spyder, Mathematica, AutoCAD design software.

Human Resources

Trabajos terminados

2014 Licenciatura en Física thesis advisor of Lic. Jonathan David Bossio Solá, en la Facultad de Ciencias Exactas y Naturales de la Universidad Nacional de Buenos Aires (UBA), Nota obtenida: Diez de Diez (10/10) Marzo de 2014.

En ejecución

2014 Licenciatura en Física thesis advisor of Mauricio Suárez Durán en la Escuela de Física de la Facultad de Ciencias de la Universidad Nacional de Santander, Bucaramanga, Colombia (Propuesta Aprobada)

2014 Licenciatura en Física thesis advisor of Christian Sarmiento Cano en la Escuela de Física de la Facultad de Ciencias de la Universidad Nacional de Santander, Bucaramanga, Colombia (Propuesta Aprobada)

2014 Licenciatura en Física thesis advisor of Yunior Perez en el Departamento de Física de la Universidad de los Andes, Mérida, Venezuela, (Propuesta aprobada)

2014

Licenciatura en Física thesis advisor of Alex Estupiñán en la Escuela de Física de la Facultad de Ciencias de la Universidad Nacional de Santander, Bucaramanga, Colombia (Propuesta Aprobada)

2014 Licenciatura en Física thesis advisor of Arturo Núñez en el Departamento de Física de la Universidad de los Andes, Mérida, Venezuela, (Propuesta aprobada)

2014 Licenciatura en Física thesis advisor of Rolando Calderón Ardila en la Escuela de Física de la Facultad de Ciencias de la Universidad Nacional de Santander, Bucaramanga, Colombia (Propuesta Aprobada)

2014 Licenciatura en Física thesis advisor of Sergio Pinilla en la Escuela de Física de la Facultad de Ciencias de la Universidad Nacional de Santander, Bucaramanga, Colombia

2014 Licenciatura en Física thesis advisor of Rafael Laverde en la Escuela de Ingeniería en Sistemas de la Facultad de Ingeniería Físico Mecánicas de la Universidad Nacional de Santander, Bucaramanga, Colombia

Publication summary

52 peer review journal publications.

31 participations and presentations at Schools & Conferences.

14 technical notes (GAP Notes) of the Pierre Auger Observatory.

See the complete list of publications, works and scitations in some of the following services:

ORCID : orcid.org/0000-0002-4559-8785

Google Scholar : scholar.google.com.co/citations?user=Vj7_fGsAAAAJ

Scopus : www.scopus.com/authid/detail.url?authorId=35276880300

Inspire-HEP : inspirehep.net/author/profile/H.Asorey.1

COLCIENCIAS : 190.216.132.131:8081/cvlac/visualizador/generarCurriculoCv.do?cod_rh=0000005467

Hernán Asorey
1st September 2014
