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Rene A. Ong

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Research Interests:

High-energy astrophysics, particle astrophysics, dark matter searches, particle physics

Education:

- | | | |
|------|---------------|---|
| 1987 | Ph.D. Physics | Stanford University
Ph.D. Thesis: <i>Measurement of the B Hadron Lifetime</i>
Advisor: John A. Jaros |
| 1983 | M.S. Physics | Stanford University
Advisor: Martin L. Perl |
| 1981 | B.S. Physics | University of Michigan
Undergraduate Thesis: <i>Design of an Enhanced 1 GeV Electron Neutrino Beam</i>
Advisor: Lawrence R. Sulak |

Employment:

- | | | |
|-----------|---|---|
| 2020- | Distinguished Professor | Department of Physics and Astronomy
University of California, Los Angeles |
| 2001-2020 | Professor | Department of Physics and Astronomy
University of California, Los Angeles |
| 2016 | Visiting Professor | Institute for Cosmic Ray Research (ICRR)
University of Tokyo, Kashiwa, Japan |
| 2015 | Visiting Scientist | INAF-Milano
Milano, Italy |
| | Visiting Scientist | INFN-Padova, INFN- Bari
Padova and Bari, Italy |
| 2011 | Directeur de Recherche 1 | Laboratoire Leprince Ringuet (LLR)
Ecole Polytechnique, Palaiseau, France |
| 2010-2011 | Ernest Kempton Adams
Research Fellow | Department of Physics
Columbia University |

2005	Visiting Scholar	Department of Physics University of Michigan
1998-2001	Associate Professor	Department of Physics & Enrico Fermi Institute University of Chicago
1991-1998	W.W. Grainger Assistant Professor	Department of Physics & Enrico Fermi Institute University of Chicago
1988-1991	Robert R. McCormick Fellow	Enrico Fermi Institute University of Chicago
1987-1988	Postdoctoral Research Associate	Research Division Stanford Linear Accelerator Center
1980-1981	Research Assistant	Department of Physics University of Michigan
1980	Research Assistant	Physics Department Brookhaven National Laboratory
1979	Research Assistant	Space Physics Research Laboratory University of Michigan

Honors and Awards

- Outstanding Teaching Award, Dept. of Physics and Astronomy, UCLA, 2017-2018
- *DESY Silberne Ehrennadel*, Deutsches Elektronen-Synchrotron, Hamburg, Germany, 2017
- Outstanding Teaching Award, Dept. of Physics and Astronomy, UCLA, 2016-2017 (2)
- Ernest Kempton Adams Research Fellow, Columbia University, 2010-11
- Outstanding Referee, American Physical Society, 2010
- Outstanding Teaching Award, Dept. of Physics and Astronomy, UCLA, 2007-2008
- Fellow, American Physical Society, 2003
- Outstanding Teaching Award, Dept. of Physics and Astronomy, UCLA, 2001-2002
- A.P. Sloan Foundation Fellow, 1992
- Robert R. McCormick Fellow, Enrico Fermi Institute, 1988
- James B. Angell Scholar, University of Michigan, 1981
- B.S. in Physics with Highest Distinction, University of Michigan, 1981
- Phi Beta Kappa, 1980
- William J. Branstrom Prize, University of Michigan, 1978
- Rackham Undergraduate Fellowship, University of Michigan, 1977-1981

Scientific Collaboration Leadership:

2014 -	<u>Co-Spokesperson</u> , Cherenkov Telescope Array (CTA) Consortium
2014	<u>Deputy Chair</u> , CTA-US Steering Committee
2009-2013	<u>Spokesperson</u> , VERITAS Collaboration
2007-2009	<u>Deputy Spokesperson</u> , VERITAS Collaboration
2005-2007	<u>Chair</u> , VERITAS Executive Committee
1997-2007	<u>PI</u> , Solar Tower Atmospheric Cherenkov Effect Experiment (STACEE)

Professional Activities

- *Reviewer (Journals):*
Nature, Science, Physical Review Letters, Physics Letters, Physical Review D, Astrophysical Journal, Astronomy and Astrophysics, Astroparticle Physics, Nuclear Instruments and Methods, Particle Data Group
- *Reviewer (Agencies):*
National Science Foundation (PHY, AST, OPP, INT)
Department of Energy (Office of Science)
NASA
Research Corporation
Cottrell Foundation
Guggenheim Foundation
U.S.-Israel Binational Science Foundation
Helmholtz Association (Germany)
Deutsche Forschungsgemeinschaft (Germany)
CNRS (France)
National Research Foundation (South Africa)
Tata Institute of Fundamental Research (India)
Swiss National Science Foundation (SNSF)
Institute for Cosmic Ray Research (ICRR), Kashiwa, Japan
- Member: American Physical Society, American Astronomical Society

Professional Service (since 2000)

National Strategic/Roadmap Committees:

- | | |
|---------|---|
| 2012-16 | <u>Committee on Astronomy and Astrophysics (CAA)</u> , Board on Physics and Astronomy, National Research Council, Washington D.C., USA. |
| 2011 | <u>Committee to Assess the Deep Underground Science and Engineering Laboratory (DUSEL)</u> , National Research Council, Washington DC. |
| 2010-12 | <u>Scientific Advisory Committee (SAC), AStroParticle ERAnet (ASPERA), The Roadmap for Astroparticle Physics in Europe</u> , Hamburg, Germany. |
| 2009-10 | <u>Panel on Particle Astrophysics and Gravitation (PAG)</u> , <i>New Worlds, New Horizons in Astronomy and Astrophysics</i> , Astro2010: The Decadal Survey in Astronomy and Astrophysics, National Research Council, Washington D.C., USA. |
| 2009 | <u>Particle Astrophysics Scientific Assessment Group (PASAG)</u> , Sub-Panel of the High Energy Physics Advisory Panel (HEPAP), Washington D.C., USA. |

- 2005 NASA Universe Exploration Strategic Roadmap Committee (SRC-8), NASA, Washington D.C.
- 2004 Chair, Science Assessment Group for Experiments in Non-Accelerator Physics (SAGENAP), Sub-Panel of the High Energy Physics Advisory Panel (HEPAP), Washington D.C, USA.
- 2003 Reviewer, Connecting Quarks with the Cosmos, Eleven Science Questions for the New Century, Committee on the Physics of the Universe, National Research Council, Washington D.C, USA.
- 2003-07 Astronomy and Astrophysics Advisory Committee (AAAC), NSF, NASA, and DOE, Washington D.C, USA.
- 2003 High Energy Physics Facilities Committee, Sub-Panel of the High Energy Physics Advisory Panel (HEPAP), Washington D.C., USA.
- 2002-04 High Energy Physics Advisory Panel (HEPAP), DOE and NSF, Washington D.C., USA.
- 2002 Neutrino Facilities Assessment Committee (NFAC), *Neutrinos and Beyond*, National Research Council, Washington D.C., USA.
- 2001 Long Range Planning for High Energy Physics, Sub-Panel of the High Energy Physics Advisory Panel (HEPAP), DOE and NSF, Washington D.C., USA
- 2000-02 Scientific Assessment Group for Experiments in Non-Accelerator Physics (SAGENAP), DOE and NSF, Washington D.C., USA.
- 2000 Panel on High Energy Astrophysics from Space (HEAS), *Astronomy and Astrophysics in the New Millennium*, Decadal Survey in Astronomy and Astrophysics, National Research Council, Washington D.C., USA.
- 2000 Panel on Particle, Nuclear, and Gravitational Wave Astrophysics (PNGWA), *Astronomy and Astrophysics in the New Millennium*, Decadal Survey in Astronomy and Astrophysics, National Research Council, Washington D.C., USA.

Laboratory/Institute/Agency Committees:

- 2019 External Review Committee, Institute for Cosmic Ray Research (ICRR), University of Tokyo, May 2019, Kashiwa, Japan.
- 2012-17 Physics Research Committee (PRC), Deutsches Elektronen-Synchrotron (DESY) Hamburg, Germany.
- 2011 Review Committee, Helmholtz Alliance for Astroparticle Physics – HAP, Helmholtz Association, May 2011, Karlsruhe, Germany.
- 2011 Committee of Visitors (COV), NSF Astronomy (AST) Division, Washington DC.

- 2009 Five-Year Program Review, *Program Astroparticle Physics, Research Field Structure of Matter*, Helmholtz Association, Karlsruhe, Germany.
- 2008 Selection Committee, *GLAST Fellowship (Cycle 1) Program*, NASA, Washington D.C.
- 2005-08 Conseil Scientifique, Laboratoire Leprince Ringuet, Ecole Polytechnique, Palaiseau, France.
- 2005 Nominating Committee, Division of Astrophysics (DAS) of the American Physical Society (APS), Washington DC.
- 2003-04 Director's Review, Physics Division, Lawrence Berkeley National Laboratory (LBNL), Berkeley CA, USA.
- 2003-07 Gamma Ray Large Area Space Telescope (GLAST) User's Committee, NASA, Washington D.C, USA.
- 2003-07 Experimental Program Advisory Committee (EPAC), Stanford Linear Accelerator Center (SLAC), Stanford CA, USA.
- 2002-04 Universities Research Association (URA) Visiting Committee, Fermi National Accelerator Laboratory (FNAL), Batavia IL. USA,
- 2000 Committee of Visitors (COV), NSF Physics (PHY) Division, Washington D.C., USA.
- 2000 Portfolio Allocation Review (PAR), NSF Astronomy (AST) Division, Washington D.C., USA.

Conference Organization:

- 2019 Organizer, *Antideuteron 2019*, March 2019, Los Angeles CA, USA.
- 2019 International Advisory Committee, *International School on Astroparticle Physics (ISAPP) 2019, at the Pierre Auger Observatory*, March 2019, Malargue, Argentina.
- 2016 International Organizing Committee, *Science with the New Generation of High Energy Gamma-ray Experiments (SciNeGHE)*, October 2016, Pisa, Italy.
- 2016 Scientific Organizing Committee, *Cherenkov Telescope Array: the Ground-based Eyes to Observe the Gamma-ray Universe*, COSPAR Event E1.20, August 2016, Istanbul, Turkey.
- 2016 International Advisory Committee, *Cosmic Ray International Seminar (CRIS 2016), New eyes on the Universe*, July 2016, Ischia, Italy.
- 2014 Organizer, *Antideuteron 2014: 1st Cosmic Ray Antideuteron Workshop*, June 2014, Los Angeles CA, USA.
- 2013 Session Organizer, *High Energy Cosmic Rays and their Propagation*, TeV

Particle Astrophysics (TeVPA 2013), August 2013, Irvine CA, USA.

- 2012 Scientific Organizing Committee, *Second Cherenkov Telescope Array LINK Meeting*, November 2012, Buenos Aires, Argentina.
- 2012 Scientific Organizing Committee, *Gamma 2012, 5th Heidelberg International Symposium on High-Energy Gamma-ray Astronomy*, July 2012, Heidelberg, Germany.
- 2012 International Advisory Committee, *9th Workshop on Science with the New Generation of High Energy Gamma-ray Experiments (SciNeGHE 2012)*, June 2012, Lecce, Italy.
- 2006 International Organizing Committee, *VI Rencontres du Vietnam: Particle Astrophysics*, Hanoi, Vietnam, August 2006.
- 2005 Organizing Committee, *Towards a Future Ground Based Gamma Ray Observatory*, October 2005, Malibu CA, USA.
- 2005 International Advisory Committee, *Towards a Network of Atmospheric Cherenkov Detectors VII*, April 2004, Palaiseau, France.
- 2004 Organizing Committee, *2004 Meeting of the Division of Particles and Fields (DPF) of the American Physical Society (APS)*, August 2004, Riverside CA, USA.
- 2003 Session Organizer, *April Meeting of the American Physical Society (APS), Joint DAP/DPF Session*, April 2003, Philadelphia PA, USA.
- 2002 Scientific Advisory Committee, *International Symposium: The Universe Viewed in Gamma Rays*, September 2002, Kashiwa, Japan.
- 2002 Program Committee, *SPIE International Symposium on Astronomical Telescopes and Instrumentation*, August 2002, Waikoloa HI, USA.
- 2001 Organizing Committee, *Snowmass 2001, The Future of Particle Physics*, July 2001, Snowmass CO, USA.
- 2000-02 High Energy Neutrino Astrophysics Panel (HENAP), Particle and Nuclear Astrophysics and Gravitation Interaction Committee (PANAGIC).

Postdoctoral Research Associates:

(Most recent position given in parentheses)

2018- Sean Quinn (Postdoctoral Researcher, UCLA)
2015-19 Ralph Bird (Postdoctoral Researcher, UCLA)
2012-15 Taylor Aune (Scientific Software Engineer, The Climate Corporation)
2009-12 Pratik Majumdar (Associate Professor, SAHA Institute of Nuclear Physics)
2009-15 Isaac Mognet, (Research Scientist, Penn State University)
2005-10 Amanda Weinstein (Associate Professor, Iowa State University)
2002-06 Jeffrey Zweerink, (Research Physicist, UCLA)
2000-02 Jim Hinton (Director, Max-Planck Institute fur Kernphysik, Heidelberg)
1997-99 Zoa Conner (Instructor, College of Southern Maryland)
1995-98 Mark Chantell (Teaching Staff, University of Chicago)
1994-97 Lucy Fortson (Professor, University of Minnesota)
1992-97 Brian Fick (Professor, Michigan Technical University)
1992-06 Kevin Green (Physics Instructor, University of Connecticut-Stamford).
1991-03 Corbin Covault (Professor, Case Western Reserve University)

Graduate Students (Ph.D. supervisor):

(Most recent position given in parentheses)

Jamie Ryan UCLA Astronomy

Matt Buchovecky UCLA Physics UCLA 2019
"Very High-Energy Gamma-Ray Emission from the Galactic Center with VERITAS"
(Data Scientist, Genius Sports)

Alexis Popkow Ph.D. Physics UCLA 2016
"Very High-Energy Astrophysical Processes in the Cygnus Region of the Milky Way"
(Senior System Engineer, Raytheon Technologies)

Ken Chow Ph.D. Physics UCLA 2010
"A Deep Survey of the Galactic Plane at Very High Energies,"
(private industry).

Ozlem Celik Ph.D. Physics UCLA 2008
"Observations of the Crab Nebula and Pulsar with VERITAS,"
(Data Science Senior Manager, Accenture)

Alex Jarvis Ph.D. Physics UCLA 2008
"Observations of Gamma-Ray Bursts by STACEE,"
(Lead Data Analyst, Glu Mobile)

- Jennifer Carson Ph.D. Astronomy, UCLA, 2005
 “STACEE Observations of Markarian 421 above 100 GeV and a New Method for High-Energy Spectral Analysis.”
 (Professor of Physics, Santa Monica College)
- Scott Oser Ph.D. Physics, Univ. of Chicago, 1999
 “High Energy Gamma-Ray Observations of the Crab Nebula and Pulsar with the Solar Tower Atmospheric Cherenkov Effect Experiment.”
 (Professor of Physics, University of British Columbia)
- Joseph Fowler Ph.D. Physics, Univ. of Chicago, 1998
 “Composition and Spectrum of Cosmic Rays at the Knee Measured by the CASA-BLANCA Experiment.”
 (Senior ARRA Fellow, NIST)

External Reviewer for Ph.D. or Habilitation Theses

- Joaquim Palacio Philosophiae Doctor (Ph.D.) 2018
Indirect Dark Matter Searches on the Triangulum-II Dwarf Spheroidal Galaxy and the Perseus Galaxy Cluster with the MAGIC Telescopes
 Institut de Fisica d'Altes Energies (IFAE) and Universitat Autònoma de Barcelona (UAB), Barcelona, Spain
President of Examining Committee
- Riccardo Munini Tesi Dottorato (Ph.D.), 2016
Solar Modulation of Cosmic Ray Electrons and Positrons Measured by the PAMELA Experiment during the 23rd Solar Minimum
 Facoltà di Scienze Matematiche, Fisiche e Naturali
 University of Trieste, Trieste, Italy
- Pierre Brun Habilitation a Diriger les Recherches (H.D.R.), 2014
The High-Energy Universe as a Laboratory for Particle Physics
 Université Paris VII, Paris, France
- Berrie Giebels Habilitation a Diriger les Recherches (H.D.R.), 2011
A Contribution to Gamma-ray Astronomy of GeV-TeV Active Galaxies with Fermi and H.E.S.S.
 Université Paris Sud 11, Orsay, France
- Mathieu de Naurois These de Doctorat (Ph.D.), 2000
L'Experience Celeste: Ouverture d'une Nouvelle Fenetre d'Observation entre 20 GeV et 300 GeV
 Université Paris VI, Paris, France
- Berrie Giebels These de Doctorat (Ph.D.), 1998
Contribution a la Reconversion d'une Centrale Solaire en un Vaste Detecteur pour l'Astronomie Gamma
 Université de Bordeaux 1, Bordeaux, France