

Jennifer M. Gaskins, Ph.D.

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Science Park 904, 1098 XH Amsterdam, Netherlands

Astroparticle physicist with demonstrated skills in data analysis, mathematical modeling, statistical analysis, project management, public speaking, and science communication.

Independent Research Experience

Marie Curie Postdoctoral Fellow October 2014 - present
University of Amsterdam, Amsterdam, Netherlands

Einstein Postdoctoral Fellow October 2011 - September 2014
California Institute of Technology, Pasadena, California, USA

CCAPP Postdoctoral Fellow September 2008 - September 2011
The Ohio State University, Columbus, Ohio, USA

International Collaborations and Management Roles

Member, Cherenkov Telescope Array (CTA) Consortium August 2013 - present
Co-chair, Dark Matter & Fundamental Physics Working Group February 2015 - present

Affiliated Scientist, Fermi Gamma-ray Space Telescope March 2009 - present
Co-coordinator, Dark Matter & New Physics Science Group September 2011 - March 2013

Education

University of Chicago, Chicago, Illinois, USA

Ph.D., Physics, August 2008

M.S., Physics, March 2004

Brown University, Providence, Rhode Island, USA

Sc.B., Physics, May 2002, *Magna cum Laude*, with Honors in Physics

A.B., Theatre Arts, May 2002

Major Achievements

- **Runner up, Amsterdam SmartCity Hackathon, June 2015:** data scientist on team that developed smartphone app concept "CarbonHero" to automatically identify user's transportation choices and log carbon emissions; used physics expertise to identify efficient means of implementing the concept using smartphone technology
- **Identified new method for detecting dark matter using existing data, Sept 2013:** proposed and demonstrated the power of using low-energy neutrino observations to increase sensitivity of searches for dark matter particles in the Sun; prior searches were all based on high-energy data and had limited sensitivity to some types of dark matter
- **Led pioneering data analysis that opened a new, highly valuable direction of research, May 2012:** led an international team to perform the first angular power spectrum analysis of all-sky gamma-ray data, yielding a strong detection of this newly-identified observable quantity, and important constraints on several classes of known and proposed gamma-ray sources

Skills

Programming: IDL, Mathematica, LaTeX (highly proficient); R, Python, Fortran (limited proficiency)

Languages: English (native), Italian (B2 level)

Professional Qualifications

- **Successful in securing research funding:** \$230k total in 3 NASA research grants won as Principal or Co-Investigator
- **Consistent, high-quality publication record:** 27 papers published in international peer-reviewed journals; 1006 citations, H-index of 16 (Google Scholar, July 2, 2015)
- **Engaging speaker:** since 2011, gave 20 invited conference presentations and 37 invited seminars and colloquia in the US, UK, Europe, and Japan
- **Effective teacher, mentor, and public communicator:**
 - Gave several invited guest lectures for academic courses and Ph.D. summer schools, including at Caltech and Stanford
 - Advised research projects of 8 undergraduate and Ph.D. students, resulting in several journal publications led by students or with significant student involvement
 - Delivered invited public lecture on cosmology to an art gallery audience in Los Angeles, 2013
 - Participated as a featured scientist in interactive science-focused video game Axion (axion.is), 2014

Selected Honors

- **Marie Skłodowska-Curie Fellowship**
European Commission, 2013
Highly competitive postdoctoral fellowship awarded to a small number of top researchers to support their independent research programs (from all subfields of physics, ~ 10 were awarded in 2013 to non-EU scientists joining EU institutions)
- **Einstein Fellowship**
NASA, 2011
Elite fellowship awarded to ~ 10 postdoctoral researchers each year in the field of cosmology, from a worldwide applicant pool
- **Luise Meyer-Schutzmeister Memorial Award**
Association for Women in Science (AWIS) Educational Foundation, 2007
Monetary prize awarded each year to an outstanding woman graduate student in physics enrolled in a Ph.D. program at a U.S. institution

Personal Information

Date of Birth: July 3, 1980

Citizenship: USA