

# Annie C. Mejía, Ph.D.

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## Qualifications Summary

Top-performing, highly-motivated, and bilingual **researcher and writer** with proven ability to create engaging and compelling content for exhibits, publications, and the web • Dedicated professional with **strong managerial and organizational skills** applied toward projects, content, and personnel • Dependable teammate with sharp attention to accuracy and detail, diligence to stay within budget, and clear **determination to meet deadlines and provide high-quality results** • Versatile and resourceful problem-solver with knowledge of reliable research resources and **extensive computer skills**, including graphic and web design software • Enthusiastic about **collaborating** with other team members in a highly-creative environment • Conscientious about **conservation** of resources and use of environmentally-friendly materials • Academic expert on astronomy, astrobiology, and scientific research with **17 years of experience** at conveying scientific and historical knowledge in formal and informal settings, including excellent educational writing style and outstanding adaptation of visual aids.

## Professional Experience

### **Exhibits Developer** • Fall 2006 – Fall 2010

The Museum of Flight, Seattle, Washington

Managed, researched, and developed the content (text, graphics, interactives, and multimedia) of 30 engaging permanent and temporary exhibits that educated and entertained a broad range of audiences. Worked closely with graphic/industrial designers, artists, historians, aerospace experts, education coordinators, volunteers, and vendors.

### **Research Associate (Postdoctoral Fellow)** • Fall 2003 – Summer 2006

University of Washington Astronomy Department, Seattle, Washington

Continued cutting-edge research on theory and simulations of early planetary systems, funded by NASA's Origins grant, and was part of the multidisciplinary Astrobiology Program.

### **Research Assistant, Instructor, and Assistant Instructor** • Fall 1997 – Spring 2003

Indiana University Astronomy Department, Bloomington, Indiana

Worked on state-of-the-art computer simulations of early planetary systems. Created and maintained the Indiana 3-D Hydrodynamics Group website. Developed class curriculum and taught a college-level astronomy class titled Stars and Galaxies. Efficiently graded homework and led discussions/labs for several astronomy classes, including The Solar System, Finding Places to Live, Gravity: the Great Attractor, Computational Astronomy, and Introduction to Astronomy; each class with 150 to 250 students. Webmaster for these courses' websites.

### **Museum Guide** • 1992

Museum of Astronomy and Space Sciences, Mérida, Venezuela

Conducted tours, in English and Spanish, about astronomy in general and the use of telescopes.

## Present Volunteer Work

**Writer and Contributing Editor** for The Museum of Flight, A Collected History, Seascript Publishing, 2011.

**Writer and Researcher** for The Huntington's Today in History of Science online database.

**Designer and Webmaster** for the website [www.flamencogitana.com](http://www.flamencogitana.com).

## Education

**Astronomy** (major) with focus on planetary formation

**Classical Civilization, Mathematics, Scientific Computing** (minors)

Ph.D. (2004) • M.A. (2000) • B.S. (1997)

All degrees conferred by Indiana University, Bloomington, Indiana.

## Skills

**Technical:** Expert in Adobe Photoshop and Illustrator, MS Office (PowerPoint/Excel/Word), Macromedia Dreamweaver and Fireworks, Mac OS, Fortran/C/C++, and HTML • Highly experienced with Unix/Linux, Macromedia Flash, Adobe Acrobat, Apple iMovie, and CSS • Familiar with Windows, Adobe ImageReady, Google SketchUp, XML, and CGI • Years of high-performance computing code writing and testing.

**Artistic:** Innate talent for design • Creation of aesthetically pleasing exhibits, publications, presentations, posters, and websites • Construction of art and functional art pieces.

**Interpersonal:** Fluent in English and Spanish • Excellent interaction and communication skills independent of educational background and size of audience • Teamwork driven • Friendly and charismatic.

## Selected Exhibits

### **Chasing Horizons** • October 2009 – January 2011

A temporary exhibit on the history of women in aviation and the aerospace industry since 1784.

Researched, processed, and wrote all content for interpretative panels, image captions, and artifact labels. Also worked on selection of images and artifacts for display, managed core of volunteers who wrote 79 biographies for a computer database, edited the content of the database for accuracy, flow, and format, and helped with the installation of the exhibit.

### **The First Airplane Flight in Washington State** • March – May 2010

A temporary exhibit on Charles K. Hamilton and his historic flight of 1910. Proposed original concept for the exhibit, as well as researched and developed the content (text and images) to commemorate 100 years of Hamilton's flight over the museum's present location.

### **In Search of Amelia Earhart** • October 2009 – May 2010

A temporary exhibit on the life and times of the famous American aviatrix. Researched and developed content for all interpretative panels, image captions, and artifact labels. Worked on selection of images from offsite sources, obtained artifacts for display from other museums and private collections, and edited videos for three video stations in the exhibit. Interacted with several educational institutions and experts on Earhart's life, as well as conducted original research to make the exhibit one of the most accurate and comprehensive Earhart exhibits to date. The process resulted in the museum's acquisition via loan and subsequent donation of the only piece of Earhart's last plane known to exist.

### **The Museum of Flight Tower at Boeing Field** • Open since May 2009

A permanent exhibit on the principles of flight and air traffic control. Researched and wrote the content for the four science sections titled **Animal Flight**, **Physics of Flight**, **Flying Machines**, and **Weather and Flight**, where scientific concepts are explained via graphics, videos, and interactives. Obtained artifacts, selected and edited videos, and participated in the development of interactives. Worked closely with the graphic designer to make the exhibit accurate, yet very appealing and kid-friendly. In addition, helped with the installation of the exhibit.

### **The International Year of Astronomy** • February – August 2009

An on-site and online exhibit on a series of topics in astronomy and famous astronomers as a celebration of the IYA. Applied personal academic expertise on the development of the exhibit and worked closely with the graphic designer on producing easily-understood diagrams explaining concepts in modern astronomy to the general public.

### **The Pathfinder Database** • Open since September 2008

A database to honor men and women who have made significant contributions to the development of the aerospace industry in the Northwest. Edited over 70 biographies accuracy, flow, and format for the computer database interactive. Updated the database every subsequent year with the addition of new awardees.

### **Style in the Aisle** • February – June 2008.

A temporary exhibit on the history and fashion of flight attendants in the United States. Researched and developed the content of the main interpretative panels, uniform/artifact labels, and image captions. Obtained, through purchases and loans, several uniforms and accessories to complement the museum's collection of flight attendant uniforms. Given the relative lack of books on the subject of airline uniforms, much of the research was conducted via interviews with flight attendants (former, current, and retired) and with private collectors. Contributed to the marketing of the exhibit through interviews with local media. The exhibit was the museum's most popular in terms of attendance and press coverage since 2007 until present, and resulted in a significant expansion of the museum's commercial aviation garment and image collections. Due to its popularity and appeal, the exhibit is planned to be re-installed in 2011.

### **The Holtgrewe Model Collection** • Open since November 2007

A permanent display of 1/72 scale models and a database of over 400 of aircraft flown during World War II. Managed and edited all 426 database entries for and checked for accuracy, consistency, flow, and format.

### **Space: Exploring the New Frontier** • Open since June 2007.

A permanent exhibit on the history of space exploration. Managed content contributions by volunteers and other writers, and developed content for the sections on telescopes, satellites, probes, the Solar System, and astrobiology. Researched all artifacts in the museum's space collection and wrote the corresponding identification labels. Worked closely with graphic designers on the science diagrams for the entire exhibit. Managed exhibit budget, floor plan layout, artifact display cases, and the acquisition of some of the interactives and artifacts on loan. Helped with the installation of the exhibit.

## Refereed Publications

- Cai, K., Durisen, R., Boley, A., Pickett, M., & Mejía, A., **The Thermal Regulation of Gravitational Instabilities in Protoplanetary Disks IV: Simulations with Envelope Radiation.** (2008) ApJ, 673, 1138.
- Boley, A., Mejía, A., Durisen, R., Cai, K., Pickett, M., & D'Alessio, P. **The Thermal Regulation of Gravitational Instabilities in Protoplanetary Disks III: Simulations Radiative Cooling and Realistic Opacities.** (2006) ApJ, 651, 517.
- Cai, K., Durisen, R., Michael, S., Boley, A., Mejía, A., Pickett, M., & D'Alessio, P. **The Effects of Metallicity and Grain Size on Gravitational Instabilities in Protoplanetary Disks.** (2006) ApJ Letters, 636, L149.
- Mejía, A., Durisen, R., Pickett, M., & Cai, K. **The Thermal Regulation of Gravitational Instabilities in Protoplanetary Disks II. Extended Simulations With Varied Cooling Rates.** (2005) ApJ, 619, 1098.
- Durisen, R., Cai, K., Mejía, A., & Pickett, M. **A Hybrid Scenario for Gas Giant Planet Formation in Rings.** (2005) Icarus, 173, 417.
- Pickett, B., Mejía, A., Durisen, R., Cassen, P., Berry, D., & Link, R. **The Regulation of Gravitational Instabilities in Protoplanetary Disks.** (2003) ApJ, 590, 1060.
- Durisen, R., Mejía, A., & Pickett, B. **Gravitational Instabilities in Protostellar and Protoplanetary Disks.** (2003) RRDAp, 1, 173.
- Durisen, R., Mejía, A., Pickett, B., & Hartquist, T. **Gravitational Instabilities in the Disks of Massive Protostars as an Explanation for Linear Distributions of Methanol Masers.** (2001) ApJ Letters, 563, L157.
- Pickett, B., Durisen, R., Cassen, P. & Mejía, A. **Protostellar Disk Instabilities and the Formation of Substellar Companions.** (2000) ApJ Letters, 540, L95.

## Conference Proceedings

- Mejía, A., Quinn, T., & Mayer, L. **Solid/Gas Interactions in Gravitationally Unstable Protoplanetary Disks.** (2005) Poster Proceedings of Protostars and Planets V, 8210.
- Cai, K., Durisen, R., Michael, S., Boley, A., Mejía, A., Pickett, M., & D'Alessio, P. **The Effects of Metallicity and Grain Size on Gravitational Instabilities in Protoplanetary Disks.** (2005) Poster Proceedings of Protostars and Planets V, 8155.
- Mejía, A., Durisen, R., & Pickett, B. **Gravitational Instabilities in Disks with Radiative Cooling.** (2003) ASPConfS, 294, 287.
- Pickett, B., Durisen, R., Cassen, P. & Mejía, A. **The Formation of Companion Objects by Disk Instabilities.** (2000) Poster Proceedings of IAU Symposium No. 200: The Formation of Binary Stars, 190.

## Lectures

- Tour of the Universe.** Lecture for the Museum of Flight docents. Seattle, Washington, December 5, 2007.
- Scuba: Hidden Planets Around Nearby Stars.** University of Hawaii. Hilo, Hawaii, December 2005.
- Cooling in Gravitationally Unstable Disks.** University of Washington. Seattle, Washington, May 2004.
- Dissertation Colloquium.** Indiana University. Bloomington, Indiana, April 2003.
- The talk titled **Gravitational Instabilities in Protoplanetary Disks** has been given at the following institutions:
- University of Washington. Seattle, Washington, April 2003.
  - University of Chicago. Chicago, Illinois, February 2003.
  - University of Notre Dame. South Bend, Indiana, January 2003.
  - Indiana University Purdue University Calumet. Calumet, Indiana, April 2002.

## Scientific Posters

Mejía, A., Quinn, T., & Mayer, L. **Solid/Gas Interactions in Protoplanetary Disks**. Protostars and Planets V. Big Island, HI, October 2005.

Mejía, A., Quinn, T., & Mayer, L. **Gas and Dust Interaction in Protoplanetary Disks**. NASA Astrobiology Institute Biennial Meeting. Boulder, CO, April 2005.

Cai, K., Durisen, R., Mejía, A., & Pickett, M. **Boundary Conditions for Radiative Cooling in Gravitationally Unstable Disks**. Cores, Disks, Jets, & Outflows in Low and High-Mass Star Forming Environments. Banff, Alberta, Canada, July 2004.

Mejía, A., Durisen, R., Pickett, M., & D'Alessio, P. **Radiative Cooling and Irradiation in Gravitationally Unstable Disks**. Gordon Research Conference: Origins of Solar Systems. Bristol, RI, June 2003.

Cai, K., Mejía, A., Durisen, R., & Pickett, M. **Cooled Protoplanetary Disks with Sustained Gravitational Instabilities**. Gordon Research Conference: Origins of Solar Systems. Bristol, RI, June 2003.

Mejía, A., Durisen, R., & Pickett, B. **Gravitational Instabilities in Disks with Radiative Cooling**. Scientific Frontiers in Extrasolar Planets. Washington DC, June 2002.

Mejía, A., Durisen, R., Pickett, B., & Hartquist, T. **Masers in Disks due to Gravitational Instabilities**. Women in Science Research Day. Bloomington, IN, March 2002.

Mejía, A., Durisen, R., Pickett, B., & Hartquist, T. **Masers in Disks due to Gravitational Instabilities**. American Astronomical Society Meeting 199, #134.14. Washington DC, January 2002.

Pickett, B., Mejía, A., & Durisen, R. **Heating, Cooling, and Gravitational Instabilities in Protostellar and Protoplanetary Disks**. American Astronomical Society Meeting 199, #60.17. Washington DC, January 2002.

Mejía, A., Durisen, R., & Pickett, B. **Mass Accretion in Disks due to Gravitational Instabilities**. Gordon Research Conference: Origins of Solar Systems. New London, CT. June 2001.

Pickett, B., Durisen, R., Cassen, P., Woolum, D., & Mejía, A. **Regulation of Gravitational Instabilities in Protostellar Disks**. Gordon Research Conference: Origins of Solar Systems. New London, CT. June 2001.

## Awards and Honors

**Riveter Honorable Mention Award** (2008). Given for commitment in excellence and quality service at the Museum of Flight.

**Orion's Belt Award** (2007). Given for extraordinary achievement through teamwork at the Museum of Flight.

**Esther Kinsley Dissertation Award** nominee (2005). Award given to the best Ph.D. dissertation in Indiana University.

**J & F Morgan Swain Fellowship** (2002). \$600 given by the Indiana University Astronomy Department to dissertation students.

**McCormick Research Grant** (2002). \$2500 given by the Indiana University College of Arts and Sciences.

**Distinction award and departmental honors at graduation** (1997).

**Phi Beta Kappa National Honor Society** (member since 1997).

**Golden Key National Honor Society** (member since 1996).

**High Scholastic Achievement Diploma** at Indiana University (1993, 1994, 1995, 1996, 1997).

**Wrubel Scholarship** awardee (1994). \$1000 given by Indiana University and the Wrubel Foundation.

**Galileo Scholarship** awardee (1991). Given by the Venezuelan government to fully cover undergraduate tuition at Indiana University.

## Additional Information

Please visit <http://resume.anniemejia.com> for a comprehensive list of exhibits, websites created and maintained, and related articles. Portfolio and references available upon request.