

THOMAS M. BROWN

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EDUCATION

- Johns Hopkins University, Ph.D. (1996), Astrophysics
- Johns Hopkins University, M.A. (1994), Astrophysics
- Pennsylvania State University, B.S. (1992), Physics and Astrophysics, with honors

EMPLOYMENT

- Space Telescope Science Institute – Faculty (2001 – present)
 - Missions
 - Mission Head, *Hubble Space Telescope* (2016 – present)
 - Mission Scientist, *James Webb Space Telescope* (2008 – 2016)
 - Instrument Scientist, *HST* Wide Field Camera 3 (2004 – 2008)
 - Instrument Scientist, *HST* Space Telescope Imaging Spectrograph (2001 – 2004)
 - Research
 - Astronomer with Tenure (2012 - present)
 - Associate Astronomer with Tenure (2007 – 2012)
 - Associate Astronomer (2004 – 2007)
 - Assistant Astronomer (2001 – 2004)
- NASA Goddard Space Flight Center – Postdoctoral Research Associate (1997 – 2001)
- Loyola University – Adjunct Professor (1997 – 1999)

SUMMARY OF AWARDS, GRANTS, AND PUBLICATIONS

- 2005 AURA Outstanding Scientific Achievement Award
- Principal Investigator of 20 space-based observing programs with over \$3.5M in grants
- Co-Investigator of 59 space-based and ground-based observing programs
- Co-Investigator of 2 funded NASA concept studies
- First author of 36 refereed papers
- Contributing author of 89 refereed papers
- Full list of grants and publications available separately

RESEARCH HIGHLIGHTS

- Principal Investigator of a *Hubble* Large Program to obtain high-precision ages in ultra-faint dwarf galaxies to investigate quenching signatures in their star formation histories
- Principal Investigator of a *Hubble* Treasury Program obtaining deep panchromatic ultraviolet-to-infrared imaging of the Galactic bulge to investigate the bulge formation, chemical evolution, initial mass function, and exoplanet hosts.
- Principal Investigator of three *Hubble* Large Programs obtaining ultra-deep optical imaging of the resolved stellar populations in various structures of the Andromeda galaxy, revealing the detailed star formation history in each.
- Principal Investigator of a *Hubble* program to obtain the first parallax and high-precision distance for an ancient metal-poor globular cluster.
- Principal Investigator for a series of observing programs utilizing ultraviolet imaging and spectroscopy of massive Galactic globular clusters, Local Group galaxies, and intermediate-redshift galaxies to probe late phases of low-mass stellar evolution.
- Co-Investigator on a wide variety of programs investigating galaxy evolution.

TECHNICAL EXPERIENCE

- Integration, testing, and ground control of the *Hopkins Ultraviolet Telescope* for the *Astro-2* Space Shuttle mission.
- Calibration, troubleshooting, and user support for the Space Telescope Imaging Spectrograph on the *Hubble Space Telescope*.
- Thermal-vacuum testing, troubleshooting, calibration, developing the instrument performance model, and exploring scientific capabilities during development for the Wide Field Camera 3 on the *Hubble Space Telescope*.

EDUCATION, OUTREACH, AND MENTORING

- Teaching an astronomy class for non-majors at a liberal arts college. Developing cooperative lessons and using laboratory demonstrations.
- Public talks for area institutions, schools, and clubs. Development of press releases for the media and public. Annual participation in the career day for local schools.
- Mentor for six faculty members. Supervisor for two postdoctoral research associates. Supervisor for five research instrument analysts and scientists.

MANAGEMENT EXPERIENCE

- Leading the *Hubble Space Telescope* and its staff at the science operations center.
- Member of the senior leadership at the Space Telescope Science Institute.
- Leading the work of the instrument and optics teams of the *James Webb Space Telescope* at the center for science and flight operations.
- Representing the scientific and operational interests of STScI in collaboration with mission partners.
- Short- and long-term staffing and funding plans for *JWST* and *HST*. Contract proposals and negotiations between STScI and NASA.

HIGHLIGHTS OF SERVICE TO SPACE TELESCOPE SCIENCE INSTITUTE

- Member of the Science Personnel Committee (2007 - 2010, 2014 - 2016)
- Member of the *Hubble* Financial Review Committee (2004 - 2015)
- Member of the Research Support Advisory Committee (2012 - 2015)
- Member of the Science Recruitment Committee (2012 - 2014)
- Member of the Post-Tenure Review Committee (2013)
- Member of the High Performance Computing Committee (2007-2008)
- Member of the Science Evaluation Committee (2006)
- Chair of STScI Colloquium series (2004 – 2005)

- Member of the organizing committee for:
 - *The Local Group as an Astrophysical Laboratory* – STScI May Symposium (2003)
 - *The Science Potential of a 10-30m UVO Space Telescope* – STScI Conference (2004)
 - *The Ages of Stars* – International Astronomical Union Symposium #258 (2008)
 - *The Cosmic Distance Scale* – STScI Conference (2014)
 - *The Initial Mass Function of Low-Mass Stars* – STScI Conference (2015)
 - The Local Group: Assembly and Evolution – STScI May Symposium (2020)

HIGHLIGHTS OF SERVICE TO ASTRONOMICAL COMMUNITY

- Journal referee: *Astronomy & Astrophysics*, *The Astrophysical Journal*, *The Astronomical Journal*, *The Monthly Notices of the Royal Astronomical Society*, & *New Astronomy*
- Proposal selection: NASA Astrophysics Theory and Fundamental Physics, NSF Division of Astronomical Sciences, Chilean National Research Funding Competition (FONDECYT), Canada France Hawaii Telescope, & Gemini Telescope
- Scientific organizing committee: Seventh Meeting on Hot Subdwarfs and Related Objects (University of Oxford, 2015), *Alvio@80* (Orthodox Academy of Crete, 2020)