

# THOMAS M. BROWN – PROPOSALS

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## JAMES WEBB SPACE TELESCOPE PROPOSALS

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### **JWST Cycle 2**

GO-3849, PI: Gennaro, 42 hours  
*A Pristine IMF Probe of the Star-Forming Conditions in the Early Universe*

## HUBBLE SPACE TELESCOPE PROPOSALS

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### **HST Cycle 30**

GO-17173, PI: Nataf, 7 orbits  
*Correcting for the Effects of Interstellar Extinction Toward the Roman Galactic Exoplanet Survey Fields*

### **HST Cycle 29**

GO-16730, PI: Lehner, 137 orbit  
*Connecting the Smoke to the Fire: Mapping Andromeda's Inner Circumgalactic Medium*

### **HST Cycle 28**

GO-16282, PI: Correnti, 1 orbit  
*The IR CMD of the Metal-Rich Bulge Cluster NGC6553: Pushing its Age to Sub-Gyr Precision*

GO-16200, PI: Sahu, 9 orbits  
*Discovering Isolated Stellar-Mass Black Holes Using Astrometric Microlensing*

### **HST Cycle 27**

GO-15933, PI: Brown, 6 orbits  
*Completing the HST Parallax Legacy: M4*

GO-15956, PI: Sahu, 10 orbits  
*Mass Determination of an Extreme Halo M Subdwarf Through Astrometric and Photometric Microlensing*

GO-15902, PI: Weisz, 244 orbits  
*Tracing the 6-D Orbital and Formation History of the Complete M31 Satellite System*

### **HST Cycle 25**

GO-15146, PI: Riess, 18 orbits  
*DASHing through the LMC and M31: toward 1% distances*

GO-15065, PI: Cohen, 18 orbits  
*Opening the Window on Galaxy Assembly: Ages and Dynamics of Inner Milky Way Globular Clusters*

GO-15318, PI: Sahu, 20 orbits  
*Detecting Isolated Black Holes through Astrometric Microlensing*

## HST Cycle 24

GO-14759, **PI: Brown**, 6 orbits, \$22k  
*What Happens in the Atmospheres of Hot Horizontal Branch Stars Near 20,000K?*

GO-14734, PI: Kallivayalil, 164 orbits  
*Mily Way Cosmology: Laying the Foundation for Full 6-D Dynamical Mapping of the Nearby Universe*

GO-14766, PI: Simon, 12 orbits, \$20k  
*ACS Imaging of the Ultra-Faint Dwarf Galaxy Reticulum II: Age-Dating a Unique Nucleosynthetic Event*

## HST Cycle 23

GO-14268, PI: Lehner, 93 orbits  
*Project AMIGA: Mapping the Circumgalactic Medium of Andromeda*

GO-14234, PI: Simon, \$12k, 13 orbits  
*The Lowest Luminosity Star-Forming Galaxy*

GO-14124, PI: Correnti, 1 orbit  
*Pushing to Sub-Gyr Globular Cluster Ages: the IR CMD of NGC6397*

GO-14255, PI: van Velzen, 8 orbits  
*A First Look at the Late Stages of Accretion in Tidal Disruption Flares*

## HST Cycle 22

GO-13817/14336/14773, **PI: Brown**, 5 orbits, \$41k  
*A Direct Distance to an Ancient Metal-Poor Star Cluster*

GO-13860, PI: Gennaro (**Administrative PI: Brown**), 12 orbits  
*Investigating the Low-Mass Slope and Possible Turnover in the LMC IMF*

GO-13710, PI: Rosenfield, 10 orbits  
*Constraining Models of Evolved UV-Bright Stars in the M31 Bulge*

GO-13707, PI: Randall (**Administrative PI: Brown**), \$11k, 4 orbits  
*Mapping the Extreme Horizontal Branch Instability Strip In omega Centauri*

## HST Cycle 21

AR-13272, PI: van der Marel  
*Proper Motions of Distant Halo Stars: New Clues to Milky Way Structure, Evolution and Mass*

AR-13232, PI: Adams  
*Main Sequence Star Counts as a Probe of IMF Variations with Galactic Environment*

GO-13364, PI: Calzetti, 154 orbits (Treasury)  
*LEGUS: Legacy ExtraGalactic UV Survey*

GO-13449, PI: Geha, \$26k, 44 orbits (Medium)  
*A Non-Universal Initial Mass Function in the Ultra-Faint Galaxy Coma Berenices*

GO-13297, PI: Piotto, 131 orbits (Treasury)  
*The HST Legacy Survey of Galactic Globular Clusters: Shedding UV Light on Their Populations and Formation*

## HST Cycle 20

GO-12954, **PI: Brown**, 5 orbits, \$46K  
*A New Instability Strip in the HR Diagram of Massive Globular Clusters*

GO-12989, PI: Renzini (**Administrative PI: Brown**), 10 orbits, \$34K  
*The Ultraviolet View of Globular Clusters in the Giant Elliptical M87*

## HST Cycle 19

GO-12549, **PI: Brown**, 113 orbits (Large), \$574K  
*The Formation History of the Ultra-Faint Dwarf Galaxies*

GO-12586, PI: Sahu, 192 orbits (Large),  
*Detecting and Measuring the Masses of Isolated Black Holes and Neutron Stars through Astrometric Microlensing*

GO-12534, PI: Teplitz, 90 orbits (Treasury),  
*The Panchromatic Hubble Ultra Deep Field: Ultraviolet Coverage*

## HST Cycle 18

GO-12213, PI: de Jong, 25 orbits,  
*The Stellar Halo Profiles of Massive Disk Galaxies*

GO-12060, PIs: Faber & Ferguson (Multi-Cycle Treasury), 800 orbits,  
*CANDELS: Cosmic Assembly Near-IR Deep Extragalactic Legacy Survey*

## HST Cycle 17

GO-11664/GO-12666, **PI: Brown**, 56 orbits (Treasury), \$584K,  
*The WFC3 Galactic Bulge Treasury Program: Populations, Formation History, and Planets*

GO-11665, **PI: Brown**, 15 orbits, \$138K,  
*The Formation Mechanisms of Extreme Horizontal Branch Stars*

GO-11613, PI: de Jong, 88 snapshots,  
*Stellar Outskirts of Massive Spiral Galaxies*

GO-11684, PI: van der Marel, 9 orbits,  
*The First Proper Motion Measurement for M31: Dynamics and Mass of the Local Group*

GO-11636, PI: Siana, 39 orbits,  
*First Resolved Imaging of Escaping Lyman Continuum*

## HST Cycle 16

GO-11188, PI: Siana, 37 orbits,  
*First Resolved Imaging of Escaping Lyman Continuum*

GO-11236, PI: Teplitz, 117 orbits (Large),  
*Did Rare, Large Escape-Fraction Galaxies Reionize the Universe?*

## HST Cycle 15

GO-10816, **PI: Brown**, 128 orbits (Large), \$590K,  
*The Formation History of Andromeda's Extended Metal-Poor Halo*

GO-10815, **PI: Brown**, 13 orbits, \$78K,  
*The Blue Hook Populations of Massive Globular Clusters*

GO-10872, PI: Teplitz, 75 orbits,  
*Lyman Continuum Emission in Galaxies at  $z=1.2$*

GO-10889, PI: de Jong, 128 orbits (Large),  
*The Nature of the Halos and Thick Disks of Spiral Galaxies*

### **HST Cycle 14**

GO-10595, PI: Goudfrooij, 8 orbits,  
*A Reference Database for Accurate Ages and Metallicities of Globular Clusters in the Magellanic Clouds*

GO-10523, PI: de Jong, 92 snapshots,  
*The Halo Shape and Metallicity of Massive Spiral Galaxies*

GO-10631, PI: Puzia, 20 orbits,  
*Intermediate-Age Globular Clusters in M31*

### **HST Cycle 13**

GO-10265, **PI: Brown**, 107 orbits (Large), \$526K,  
*The Formation History of Andromeda*

GO-10261, **PI: Brown**, 15 orbits, \$99K,  
*The Formation Mechanisms of Extreme Horizontal Branch Stars*

GO-10403, PI: Teplitz, 66 orbits (Treasury),  
*Ultraviolet Imaging of the UDF*

### **HST Cycle 11**

GO-9453, **PI: Brown**, 126 orbits (Large), \$383K,  
*The Age of the Andromeda Halo*

GO-9478, PI: Teplitz, 28 orbits,  
*The Duty Cycle of Star Formation: Far-UV imaging of the Hubble Deep Field*

### **HST Cycle 10**

GO-9054, **PI: Brown**, 18 orbits, \$78K,  
*Star Formation Triggers and Chemical Reprocessing in I Zw 18*

GO-9053, **PI: Brown**, 35 orbits, \$90K,  
*The Late Evolution of Low-Mass Stars: a Deep UV Color-Magnitude Diagram of M32*

GO-9086, PI: Ferguson, 76 orbits,  
*Investigating the Formation History of Spiral Galaxy Halos*

### **HST Cycle 9**

GO-8564, **PI: Brown**, 13 orbits, \$52K,  
*Measuring the Evolution of the UV Upturn*

GO-8686, PI: Goudfrooij, 33 orbits,  
*LINERs in Early-type Galaxies: Ionized by the UV-upturn Population?*

### **HST Cycle 7**

GTO-8020, PI: Bowers, **Lead: Brown**, 10 orbits,  
*Tracking the UV Upturn to  $z=0.55$*

GTO-7557, PI: Bowers, **Lead: Brown**, 8 orbits,  
*Horizontal Branch Stars in the Core of M32*

### **HST Cycle 6**

GO-6667, PI: Ferguson, 19 orbits,  
*The Far-UV Evolution of Elliptical Galaxies*

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## **FAR ULTRAVIOLET SPECTROSCOPIC EXPLORER PROPOSALS**

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### **FUSE Cycle 6**

GI-F916, PI: Dixon, 130 ksec,  
*FUSE Observations of the Hot Post-AGB Star ROA 5342 in Omega Centaurus*

### **FUSE Cycle 5**

GI-E821, **PI: Brown**, 111 ksec, \$30K,  
*The Formation Mechanism of Hot Helium-Rich Subdwarfs*

### **FUSE Cycle 4**

GI-D157, PI: Dixon, 90 ksec,  
*FUSE Spectroscopy of Hot Post-AGB Stars in Globular Clusters*

### **FUSE Cycle 3**

GI-C128, **PI: Brown**, 157 ksec, \$93K,  
*How Does Abundance Affect the Strength of UV Emission in Elliptical Galaxies?*

GI-C129, **PI: Brown**, 28 ksec, \$33K,  
*The Formation Mechanism of Hot Helium-Rich Subdwarf B Stars*

### **FUSE Cycle 2**

GI-B066, **PI: Brown**, 30 ksec, \$46K,  
*The Hot Stellar Population and Cooling Flow of M87*

### **FUSE Cycle 1**

GI-A088, **PI: Brown**, 80 ksec, \$59K,  
*Hot Populations in Nearby Elliptical Galaxies*

GI-A108, PI: Dixon, 14 ksec,  
*FUSE Spectroscopy of Hot Post-AGB Stars in Globular Clusters*

## OTHER PROPOSALS

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NASA RA NNH07ZDA001N-ASMCS for the Astrophysics Strategic Mission Concept Studies, PI: Postman, *Advanced Technology Large-Aperture Space Telescope (ATLAST)*

NASA RA NNH05ZDA001NTPFCICS for Terrestrial Planet Finder Coronagraph/Instrument Concept Studies, PI: R. Brown, *Mag30Cam: Camera for a Portrait of the Largely Unexplored Universe Around and Beyond 30th Magnitude*

NASA Keck 2013A, PI: Simon, 3 nights  
*The Ultra-Faint Dwarfs: Fossils From the Epoch of Reionization?*

Keck 2013A, PI: Geha, 2 nights  
*Chemical Evolution in the Oldest Known Galaxies*

Gemini-S, 2012A, PI: Sahu, 21 hours  
*Discovery of Isolated Black Holes and Neutron Stars through Astrometric Microlensing*

Subaru, 2012A, PI: Venn, 2 nights  
*Metal Poor Stars in the Galactic Bulge: A Pilot Project for a RAVEN MOAO Science Case*

VLT, Period 87A, PI: Zoccali, 130 hours  
*Solving the Puzzle of the Milky Way Bulge*

Keck 2006B, PI: Rich, 2 nights,  
*Kinematics of Giants in M31 Minor Axis Spheroid/Halo Fields*

NOAO Long Term Program 2004B-0333, PI: Goudfrooij, 23 nights,  
*How Accurately Can We Determine Ages and Metallicities of Stellar Systems Using Integrated-Light Spectroscopy?*

GALEX GI-117, PI: Sweigart, 24 ksec,  
*GALEX Grism Spectroscopy of the Globular Cluster Omega Centauri*