WSGC Presentation Schedule
August 10, 2017

7:30–8:15  Registration & Continental Breakfast

7:30–8:30  Individual Award Photos  (The Bluffs Ballroom—Room 2110)

8:15–8:30  Welcome & Introductions  (The Bluffs Ballroom—Rooms 2120 & 2130)

Joe Gow: Chancellor, UW-La Crosse

Eric Barnes: WSGC Advisory Council and Institutional Representative; Physics; Chair, Professor, UW-La Crosse

Richard Stewart: Developing a Model for Supply Chain Management Internships in the Aeronautics and Space Industry and Government; Business and Economics, UW-Superior

Christopher Stockdale: Synchronous Distance Learning Across Institutions; Physics; Assistant Chair, Associate Professor, Marquette University

10:00–10:15  Robert Benjamin: From NASA’s Spitzer Space Telescope to Your Classroom: A New Citizen Science Program; Physics; Professor, UW-Whitewater

10:15–10:30  Richard Stewart: Developing a Model for Supply Chain Management Internships in the Aeronautics and Space Industry and Government; Business and Economics, UW-Superior

10:30–10:45  Christopher Stockdale: Synchronous Distance Learning Across Institutions; Physics; Assistant Chair, Associate Professor, Marquette University

10:45–11:00  Christine Thompson: Invitation to Network
Session 4: Posters & Networking (The Bluffs Ballroom—Room 2110/Lobby)

Moderator: Michael LeDocq: WSGC Advisory Council Chair; Physics; Professor, Western Technical College

1 Collegiate Rocket Launch—First Place Rocketeers: Engineering; Undergraduates, UW-Fox Valley. Represented by Brian Eberwein, Drew Eisenberg, Kathryn Lenz, Maddison Sauer, Shawn Shumacher, Justin Walters

2 Collegiate Rocket Launch—Third Place Whoosh Generator: Engineering; Undergraduates, Milwaukee School of Engineering (MSOE). Represented by Nicole Jackson, Jared Maraccini, Frederick Rosenberger, Zach Runte

3 Elijah High-Altitude Balloon Launch: Engineering; Undergraduates, Lawrence University, MSOE. Represented by Quinnan Bock, Taylor Davitz, Josh Furey

4 Elijah Balloon Payload—2017 Elijah High-Altitude Balloon Project: Engineering; Undergraduates; MSOE, UW-Fox Valley, UW-Platteville. Represented by Kathryn Baisley, Nicholas Hennigan, Stuart Oliphant, Tyler Rasmussen, Frederick Rosenberger, Blaine Vollmer

5 First Nations Launch—Third Place Keshena: Engineering; Undergraduates, College of Menominee Nation. Represented by Rickie Dodge, Citralina Haruo, Andrew Heubel

6 MATE ROV—Milwaukee School of Engineering Underwater Robotics: Engineering; Undergraduates, MSOE. Represented by Allison Ahern, Jason Julius, Woodrow Walker

7 Midwest High-Powered Rocket Launch—Pioneer Rocketry: Engineering; Undergraduates, UW-Platteville. Represented by Jane Dickler, Adrian Guither, Grant Oberhauser

8 RockSat—Wallops Flight Facility: An Observation of VLF EM Waves Emitted from Lightning; Physics; Undergraduate, Carthage College. Represented by Adam Beiwer

9 RockSat—Wallops Flight Facility: Developing Software for Microcontrollers; Engineering; Undergraduate, Carthage College. Represented by Nicholas Poole

10 USIP CaNOP Cubesat: Physics; Undergraduates; Carthage College. Represented by Michael Bisciglia, Charles Gallagher

11 Tristan Grams: Isolation and Analysis of Bacteriophages Aboard the International Space Station; Biological Sciences/ Medicine; Undergraduate, Carthage College

12 Maddie Kothe: Sierra Nevada Corporation: Build and Delivery of Flight Hardware for Pressurized Cargo Resupply Vehicle to the ISS; Engineering; Undergraduate, UW-Madison

13 Logan Hess: Analysis of the Spiral Arms of Spiral Galaxies Located in Different Environments; Astronomy; Undergraduate, UW-Stevens Point

14 Jacob Pfund: Zinc Oxide/Graphene Hybrid Structures; Physics; Undergraduate, UW- La Crosse

15 Collegiate Rocket Launch—Second Place Pioneer Rocketry: Engineering; Undergraduate; UW-Platteville. Represented by Christina De Vries
Session 5: Research Infrastructure Program

Moderator, Gubbi Sudhakaran: WSGC Associate Director for Research Infrastructure; College of Science and Health; Interim Associate Dean, UW-La Crosse

1:00–1:15 Eric Compas: UAVs and Biomass: Methodological Challenges in High-resolution, Multi-spectral Imagery; Geoscience; Associate Professor, UW-Whitewater

1:15–1:30 Steven Girard: Nanostructured Silicides for Next-Generation Radioisotope Thermoelectric Generators; Chemistry; Assistant Professor, UW-Whitewater

1:30–1:45 Andrea Henle: Isolation and Analysis of Bacteriophages Collected from the International Space Station; Biological Sciences/Medicine; Assistant Professor, Carthage College

1:45–2:00 Lindsay McHenry: Volcanic Hydrothermal Alteration on Earth and Mars: Case Study Lassen Volcanic; Geoscience; Associate Professor, UW-Milwaukee

2:00–2:15 Robin Mello: Communicating Astronomy through Theatre; Astronomy; Professor, UW-Milwaukee

2:15–2:30 Break

Session 6A: K–12 General Outreach

Moderator, Rex Hangar: WSGC Associate Director for Special Initiatives; Geography and Geology; Professor, UW-Whitewater

2:30–2:45 Jerry Graf: “Soar Like an Eagle” Phase II; Aviation; Founder, Aviation by Design

2:45–3:00 Karin Borgh: Biotechnology & NASA - Outreach at the BTC Institute; Biological Sciences/Medicine; Executive Director, BioPharmaceutical Technology Center Institute

3:00–3:15 James Senft: Look Up?; Aviation; Director of Aviation Program, Westosha Central High School

3:15–3:30 Marta Larson: Aeronautics and Space Camp for High School Girls; Transportation & Logistics; Undergraduate, UW-Superior

3:30–3:45 Todd Kapp: Enterprise In Space: A State of the Art Space Education Program; Education on New Space, Enterprise in Space

3:45–4:00 Taylor Kilgore: Simpson Street Free Press: 25 Years of Academic Achievement; Senior Teen Editor, Simpson Street Free Press
Session 6B: Student Research

Moderator, Lindsay McHenry: WSGC Associate Director for Scholarships & Fellowships; Geoscience; Associate Professor, UW-Milwaukee

2:30–2:45 Mason Mok: Jet Propulsion Lab: *Demonstration of a Superconducting Heat Switch for an Ideal Integrating Bolometer*; Engineering; Undergraduate, UW-Madison

2:45–3:00 Jens Carter: *Study of the Vulnerabilities of Open Source Software Packages: OpenFOAM 2011–2017*; Engineering; Undergraduate, UW-Fox Valley

3:00–3:15 Benjamin Hoscheit: *Exploring the Effects of Foreground Removal Techniques and Instrumental Systematics on Observations of the 21 cm Neutral Hydrogen Signal*; Astronomy; Undergraduate, UW-Oshkosh

3:15–3:30 Matt Monfeli: *The Development of a Tool for Investigating the Role of Reactive Oxygen Species in Plants During Spaceflight*; Engineering; Undergraduate, UW-Madison

3:30–3:45 Charee Peters: *Variability of Radio AGN in the CHILES Field*; Astronomy; Graduate, UW-Madison

3:45–4:00 Aaron Olson: *Development of an Experimental Lunar Volatile Extraction System*; Engineering; Graduate, UW-Madison

Session 7: NASA Partnerships

Moderator, William Farrow: WSGC Associate Director for Student Satellite Initiatives; WSGC Advisory Council and Institutional Representative; Mechanical Engineering; Associate Professor, MSOE


4:30–4:45 Lunar Mining Team: Kennedy Space Center: *Badger Robotic Mining Team*; Engineering; Undergraduate, UW-Madison. Represented by David Zeugner

4:45–5:00 Tristan Grams: Jet Propulsion Lab: *Assessing the Ability of a Microgravity Environment to Promote the Transfer of Antibiotic Resistance and Virulence Genes Between Bacteria*; Biological Sciences/Medicine; Undergraduate, Carthage College
**Award Ceremony**

5:00–5:30  
**Award Presentation**

Christine Thompson—Emcee  
Kevin Crosby—Award Presenter  
Michael LeDocq—Award Presenter

**Student Programs—Presenters**

Lindsay McHenry—Undergraduate Scholarship  
Gubbi Sudhakran—Undergraduate Research  
William Farrow—Student Satellite Programs  
Robert Morrow—Aerospace Internships  
Lindsay McHenry—Graduate & Professional Programs

Karin Borgh—Aerospace Outreach  
Rex Hanger—Special Initiatives  
Gubbi Sudhakran—Research Infrastructure  
Christopher Stockdale—Higher Education Incentives  
Michael LeDocq—NASA Competitions  
Robert Morrow—Aerospace Industry

5:30  
**Closing Remarks—Kevin Crosby**

---

**WSGC Workshop Schedule**

**August 11, 2017**

**Workshop**

7:30–8:00  
**Registration & Continental Breakfast**  
(Room 3314)

8:00–12:00  
**Brian Chad Starks:**  
*Increasing Minority Representation in STEM;* Criminologist; CEO, BCS & Associates Consulting Firm, Associate Director, Delaware Space Grant Consortium  
(Room 3310)
THURSDAY PLENARY ADDRESS: 
Gravitational Wave Astronomy and Quantum Noise

Thomas Corbitt, Ph.D. 
Assistant Professor of Physics 
Louisiana State University

Thomas Corbitt received his undergraduate degree from Georgia Tech in 2001. He began working with the Laser Interferometer Gravitational-Wave Observatory (LIGO) at the Hanford facility. He received his Ph.D. from the Massachusetts Institute of Technology (MIT) and was advised by Nergis Mavalvala—known for her role in the first observation of gravitational waves. After receiving his Ph.D., he continued at MIT as a post-doctoral associate before accepting his current position at Louisiana State University in 2011.

Corbitt’s research has focused on quantum noise in gravitational wave detectors, and how that noise may be mitigated by the use of squeezed light and opto-mechanics to make the next generation of detectors more sensitive.

FRIDAY WORKSHOP: 
Being Spacegrant’s Messenger: Increasing Minority Representation in STEM

Brian Chad Starks, Ph.D. 
CEO, BCS & Associates Consulting Firm 
Associate Director, Delaware Space Grant Consortium

Brian Chad Starks, Ph.D. is a speaker, author and critical criminologist. He received his B.A. in sociology from Wofford College, M.A. in criminal justice from the University of South Carolina and Ph.D. in criminology from the University of Delaware. In his dissertation, he examined the social organizational structure of bail systems in large cities. For more than twenty years, he has worked to build social justice and equity for individuals, organizations and communities. He is the CEO of BCS & Associates Consulting Firm and serves as the Associate Director with the Delaware NASA Space Grant Consortium where he works to increase minority student representation.
STUDENT PROGRAMS

Undergraduate Scholarship (UGS)
Undergraduate Research (UGR)
Dr. Laurel Salton Clark Memorial Graduate & Professional Fellowship (LSC)
WSGC Graduate & Professional Research Fellowship (GPP)
Application Deadline: February 5, 2018
Award Announcement: April 6, 2018

Undergraduate Scholarship (UGS)
STEM Bridge Scholarship (SBS)
Two-year Academic Institutions
Application Deadline: October 2, 2017
Award Announcement: December 1, 2017

Industry Internship Program (IIP)
Application Opportunity: February 1–28, 2018
Award Announcements: Determined by Industry Partners

TEAM PROGRAMS

Collegiate Rocket Launch (CRL)
First Nations Launch (FNL)
Notice of Intent (NOI) to compete due:
Application Deadline: October 16, 2017
Selection Announcement: October 30, 2017
Launch Competition: April 21, 2018 (TBC)

High-Altitude Balloon Program - Elijah
Work period May 15, 2018–August 15, 2018
Application Deadline: February 19, 2018
Award Announcements: April 6, 2018

NASA SPONSORED COMPETITIONS

Fall
Application Deadline: November 13, 2017
Award Announcement: December 15, 2017

Spring
Application Deadline: February 5, 2018
Award Announcement: March 30, 2018

ACADEMIC & INDUSTRY PROGRAMS

Aerospace Outreach Program (AOP)
Special Initiatives Program (SIP)
Application Deadline: October 16, 2017
Award Announcements: December 8, 2017

Higher Education Incentives (HEI)
Research Infrastructure Program (RIP)
Application Deadline: December 11, 2017
Award Announcements: March 2, 2018

Industry Internship Program (IIP)
Application Deadline: November 13, 2017
Award Announcements: January 31, 2018

Join our mailing list: https://spacegrant.carthage.edu/about/mailing-list/
Facebook: https://www.facebook.com/WiscSpaceGrant
Twitter: https://twitter.com/wispacegrant
Flicker: https://www.flicker.com/wispacegrant