

QUALIFYING EXPERIENCE:

Teaching Associate Professor and Graduate Projects Coordinator

Ann and H.J. Smead Aerospace Engineering Sciences
January 2022 – Present

- Coordinate with six faculty advisors on nine graduate projects during the academic year
- Provide weekly lectures for ASEN 5018/6028
- Cultivate new faculty and projects for Spring
- Prepare to teach ASEN 1969 Spring semesters
- Attend project meetings
- Recruit students into graduate projects
- Continue faculty director of CU Space Minor

Professional Research Assistant (PRA)

Colorado Space Grant Consortium
January 2022 – August 2022

- Completed RockOn and RockSat programs
- Supported NASA GLEE Mission
- Taught Pathway to Space course
- Attended student meetings and reviews
- Managing faculty director of CU Space Minor
- Maintain COSGC laboratory facilities
- Mentor COSGC higher education students

Director

Colorado Space Grant Consortium
November 2004 – December 2021

- Colorado point of contact for NASA HQ
- Directed RockOn & RockSat national programs
- Managing faculty director of CU Space Minor
- Approved student fellowships and scholarships
- Coordinated congressional funding increases
- Developed collaborations with industry
- Mentored COSGC higher education students
- Increased hands-on opportunities for students
- Taught Pathway to Space course
- Taught Gateway to Space course
- Attended National and Regional Meetings
- Monitored and manage monthly expenses
- Maintained effective staff and complete reviews
- Chair of National Council of Space Grant Directors - Executive Council (2008-2012)
- Collaborated with the 52 national SG directors
- Maintained COSGC laboratory facilities
- Managed COSGC's 21 member state-wide network
- Attended student meetings and reviews
- Chair, Nominating Committee National SG
- Developed collaborations with NASA centers
- Developed relationships with Eng. Departments
- Coordinated COSGC state-wide research & education
- Developed and direct COSGC strategic planning
- Proposed for new research and education programs
- Met with COSGC Advisory Board
- Reviewed and approved all NASA grant reporting
- Coordinated multiple high-altitude balloon launches

Interim Director / Student Research Coordinator

Colorado Space Grant Consortium
May 2000 – November 2004

- Oversee all student research projects
- Aid the Director in college decisions
- Teach Gateway to Space course
- Coordinate new assembly and design facilities
- Develop new student space hardware programs
- Coordinate COSGC's Upward Bound Program
- Interface with COSGC's academic affiliates
- Coordinate national teacher workshops
- Mentor and provide direction to students
- Write proposals for future COSGC funding
- Support hardware during fabrication and testing
- Approval of all student human resource issues
- Coordinate technology demonstrations for NASA
- Collaborate with other Space Grant Consortia
- PI on C-SMARTS and DemoSat programs
- PI Air Force Research Lab student workshop

CHRIS KOEHLER

Senior Engineer

Special Programs (MSP:Classified)

- Mech. Lead on antenna subsystem (01/00 – 05/00)
 - Complete mechanical design of antennas
 - Design assembly tools for antenna fabrication
 - Design Lead, Reaction Control System (RCS)
 - Product Integrity Engineer (PIE) Certified
 - RCS Lead Design PIE (05/95 – 08/99)
 - Propellant Tank PIE (01/98 – 08/99)
 - Support tank acceptance and qual testing
 - Provide technical evaluations of contracts costs
 - Failure analysis lead on unverified failure
- Support thermal, vibration and RF testing
 - Manage assembly and integration of RCS
 - Support hardware during fabrication and testing
 - Present design to customer
 - Conduct drawing tabletop and design reviews
 - Material Review Board (MRB) Certified
 - Release detail and assembly drawings
 - Coordinate PIE and MRB activities
 - Validate disbursement of contract funds to vendors
 - Support tank acceptance and qual testing

Lockheed Martin

March 1995 – May 2000

Flight Systems (GENESIS)

January 1999 - April 1999

Flight Systems (STARDUST)

May 1997 - September 1997

Project Manager

NASA Complex Autonomous Shuttle Payload

Colorado Space Grant Consortium

August 1990 - February 1995

- Manage ~40 undergraduate students
 - Negotiate funding from NASA
 - Schedule entire four-year project
- Conduct meetings and design reviews
 - Brief NASA officials of progress
 - Assemble and integrate payload

HIGHLIGHTS OF QUALIFICATIONS:

- PI NASA's Artemis Student Challenges GLEE (Great Lunar Expedition for Everyone) MAY 2020 – present
- Received NASA's Group Achievement Award for Virtual RockOn 2021 Workshop MAR 2022
- Received NASA's Exceptional Public Achievement Medal for RockOn and RockSat SEP 2016
- Received NASA's Group Achievement Award for University Student Launches (RockSat) MAR 2016
- Received NASA's Group Achievement Award for University Student Launches (RockOn) 2012
- PI on NASA's Colorado Space Grant Consortium grant since 2004
- PI on the Student Collaboration STEAM project for NASA's Explorer program called PUNCH
- PI on NASA's Colorado Undergrad Retention in Science and Engineering (COURSE) program 2013 – 2015
- PI on NASA's COSGC Community College Extension (CCCE) program 2014 – 2016
- PI 13 times on RockOn Sounding Rocket workshops and RockSat-C flights with NASA's Wallops Flight Facility (2008 - 2021)
- PI 10 times on RockSat-X sounding rocket program with NASA's Wallops Flight Facility (2011 - 2021)
- PI on RockSat-XN sounding rocket program with NASA's Wallops Flight Facility and the Grand Challenge Initiative (GCI) out of the Andøya Space Center in Norway (2016-2019)
- PI 9 times on NASA's High Altitude Student Platform (HASP) program with CU (2008 – 2017)
- PI on AFOSR and AFRL University Nanosat's Student Hands On Training program (2003 through 2013) to teach university students how to build spacecraft over a series of workshops.
- PI on eight national educators workshops for over 400 educators on starting student space programs
- PI on C-SMARTS (Colorado Students and Mentors Applying Research in Space) program for Colorado Institute of Technology and the Colorado Commission on Higher Education to develop and implement a statewide and portable course for higher education students on building small satellites while working with Colorado aerospace industries
- PI on AFOSR and AFRL University Nanosat 5 DANDE contract to build 50 kg satellite

HIGHLIGHTS OF QUALIFICATIONS (CONTINUED):

- PI on NASA's Exploration Systems Mission Directorate Higher Education grant for undergraduate and graduate student research.
- PI on the STTR/SBIR NASA subcontract with Redefine Technologies, for design of a triple redundant spacecraft system T3RSS
- PI on IOSTAR/COSGC Nuclear Space Tug Research Collaboration
- PI on DemoSat III mission to demonstrate NASA technologies on small, student built satellites
- Co-I on DemoSat I and II missions to demonstrate NASA technologies on small satellites
- Co-I on three missions to study Martian weather
- Received AIAA's Educator of the Year 1999-2000
- Supervised completion five RCS Assemblies on schedule over a period of 2 years
- Charged payload batteries on the Space Shuttle Atlantis launch pad one week prior to launch
- Participated in a team of students to design a polar orbiting satellite for a \$4.5 million proposal
- Integrated Space Shuttle payload at NASA's Goddard Space Flight Center and Kennedy Space Center
- Provided Customer Support at NASA Johnson Space Center, Mission Control Center

EDUCATION:

Master of Science, Mechanical Engineering
University of Colorado at Boulder, DEC 1994

Bachelor of Science, Aerospace Engineering
University of Colorado at Boulder, DEC 1992

PUBLICATIONS:

Koehler, Christopher, Carroll, Shawn, Logan, Emily, *RockOn and RockSat: A NASA and COSGC Collaboration to Train Tomorrow's Engineers*, Proceedings of the AIAA/Utah State University Conference on Small Satellites, August 2011, Logan, Utah

Koehler, Christopher, Davis, B., Grusin, M., *The Creation and Impact of Corporate Mentorship on Student-Led Satellite Projects*, Proceedings of the AIAA/Utah State University Conference on Small Satellites, August 2008, Logan, Utah

Koehler, Christopher, Wichman, S., *Testbed for Responsive Experiments and Demonstrations in Space*, Proceedings of the AIAA/Utah State University Conference on Small Satellites, August 2007, Logan, Utah

Koehler, Christopher, *C-SMARTS: Colorado Students and Mentors Applying Research and Technology in Space*, Proceedings of the AIAA/Utah State University Conference on Small Satellites, August 2005, Logan, Utah.

Koehler, Christopher, *BalloonSat: Missions to the Edge of Space*, Proceedings of the AIAA/Utah State University Conference on Small Satellites, August 2002, Logan, Utah

Koehler, Christopher, *Avalanche Mitigation: An Aerodynamic Approach*, Proceedings AIAA Conference, St. Louis, 1992.

Koehler, Christopher, *The Grand Tour*, Proceedings of the Sixth National Conference on Undergraduate Research, University of Minnesota, Minneapolis, MN, March 1992

CHRIS KOEHLER

ACTIVITIES:

Member of Excel Academy Board of Directors (2007 – 2009)

Engineering Explorer Post Leader, 1996-2004

Jefferson County Video Production lead for Kids Night, (Finding homes for children waiting for adoption)

Voted Explorer Post Advisor of the Year for State of Colorado, 1998

Completed Landmark Leadership Conference, 1999

Academic Achievement Award, 1988