

College of Science, Engineering and Mathematics

Degree Candidates

David Woodall, Dean

Baccalaureate Degrees

Nicole LaVon Aaron	B.S.	Biological Sciences
Nathan J. Adams	B.S.	Biological Sciences
Eric Thomas Adamson	B.S.	Physics
Jason Mark Albert <i>Golden Key Honor Society</i>	B.S.	Civil Engineering
Benerito Meade Angel	B.S.	Civil Engineering
Rachel Anne Armstrong <i>magna cum laude, Honors Program</i>	B.S.	Civil Engineering
Britt K. Arnesen <i>magna cum laude, Golden Key Honor Society, Student Leadership Honors</i>	B.S.	Biological Sciences
Scott D. Ayers	B.S.	Biological Sciences
Donald Michael Bahls <i>cum laude</i>	B.S.	Computer Science
Lourdes Barrelli	B.S.	Wildlife Biology
Brandon P. Becker <i>Golden Key Honor Society</i>	B.S.	Computer Science
Joslyn Marie Beckley <i>cum laude, Golden Key Honor Society</i>	B.S.	Biological Sciences
Eugenia M. Bender	B.T.	Health Care and Administration: Interdisciplinary Program
Jeremy E. Benson	B.S.	Electrical Engineering - Communications; Computer Engineering
Valerie Blajeski <i>Golden Key Honor Society</i>	B.S.	Biological Sciences
Deanna L. Bradley	B.S.	Biological Sciences
Dayne Broderson	B.S.	Computer Science
John Broussard	B.S.	Mathematics; Physics
Anna Running Deer Brumbelow <i>Golden Key Honor Society</i>	B.S.	Biological Sciences
Bradford R. Brunson	B.S.	Mechanical Engineering

David J. Bump

B.S.

Kelly M. Guliano <i>Golden Key Honor Society</i>	B.S.	Biological Sciences
Stacie G. Hall	B.S.	Biological Sciences
John Wesley Harding	B.S.	Geology
Scott Hayden <i>cum laude</i>	B.S.	Biological Sciences
Aryn Lee Hegg	B.S.	Biological Sciences
John Heimerl <i>cum laude, Phi Kappa Phi Honor Society</i>	B.S.	Biological Sciences
Melissa Helfrich	B.S.	Wildlife Biology
Cory L. Hitchcock <i>cum laude, Golden Key Honor Society</i>	B.A.	Biological Sciences
Samantha Hoover	B.A.	Biological Sciences
James L. Horn	B.S.	Civil Engineering
Steven D. Houston <i>cum laude</i>	B.S.	

Mikhail E. Lagoda	B.S.	Electrical Engineering - Communications; Computer Engineering
George P. Lee III	B.S.	Chemistry - Biochemistry/Molecular
Mary Rose Lee <i>cum laude</i>	B.S.	Chemistry - Biochemistry/Molecular
Katrina K. LeMieux	B.S.	Wildlife Biology
Katrina K. LeMieux	B.S.	Biological Sciences
Marya Katherine Lewanski	B.A.	Earth Science
Ben David Livengood	B.S.	Computer Science
Mary Elisabeth Loewen <i>cum laude, Golden Key Honor Society</i>	B.S.	Biological Sciences
Timothy Aaron	B.S.	Mathematics
Ludwig <i>magnacum laude</i>		
Karin Elizabeth Lupo <i>cum laude</i>	B.S.	Biological Sciences
Whitney McKay Madison	B.S.	Geology
Jonathan D. Martin	B.S.	Mechanical Engineering
Peter M. Marvin	B.S.	Mechanical Engineering
Tammy M. Massie		

Christopher A. Rushing	B.S.	Computer Science
Louise Mae Russell	B.S.	Wildlife Biology
Darci E. Scherzer	B.S.	Computer Science; Mathematics
Joseph Eric Sepe	B.S.	Mathematics; Statistics
Anthony Shaw	B.S.	General Science
Christina Rae Shaw	B.S.	Biological Sciences
Michael F. Shay	B.S.	Mathematics
Raymond Skoog	B.S.	Computer Science
Jeremie D. Smith <i>Golden Key Honor Society</i>	B.S.	Electrical Engineering - Communications; Computer

Vincent Autier <i>B.S., University Institute of Technology 1, Grenoble I (France), 1999; B.Eng., University of Brighton (England), 2000</i>	M.S.	Civil Engineering
Viktoria A. Averina <i>B.S., St. Petersburg Institute of Fine Mechanics and Optics (Russia), 2000</i>	M.S.	Mathematics
William A. Beaver <i>B.S., West Virginia University, 1997</i>	M.S.	Science Management
Sergei M. Belov <i>B.S., St. Petersburg State University (Russia), 1999</i>	M.S.	Mathematics
Latrice Nichelle Bowman <i>B.S., University of Alaska, 1999</i>	M.S.	Mathematics
Joseph Scholes Brinton <i>B.S., Brigham Young University (Utah), 1997</i>	M.S.	Geology
Virgil Edward Burket III <i>B.S., University of Alaska, 2000</i>	M.S.	Electrical Engineering
Wenyu Cao <i>B.S., Harbin Institute of Technology (China), 1998</i>	M.S.	Computer Science
Anne Carr <i>B.S., University of Alaska, 1995</i>	M.S.	Environmental Engineering
Elizabeth M. Cosden <i>B.S., University of Notre Dame (Indiana), 1997</i>	M.S.	Engineering Management
Sean Cosden		

Kurt Egan Galbreath <i>B.S., Illinois Wesleyan University, 1997</i>	M.S.	Wildlife Biology
Kathleen Ann Gannon <i>B.S., University of Alaska, 1999</i>	M.S.	Environmental Chemistry
Anna R. Godduhn <i>B.S., University of Alaska, 1996</i>	M.A.	Chemistry
Stephanie A.D. Gould <i>B.S., University of Puget Sound (Washington), 1994; B.S., University of Alaska, 2001</i>	M.S.	Environmental Engineering
Garth Graham <i>B.S., University of Delaware, 1996</i>	M.S.	Geology
Evan J. Griffith III <i>B.S., University of Alaska, 1992</i>	M.C.E.	
Tao Hou <i>B.S., Shanghai Jiao Tong University (PR China), 1990</i>	M.S.	Electrical Engineering
Colleen Lara Ianuzzi <i>B.S., University of Alaska, 2001; Phi Kappa Phi Honor Society</i>	M.S.	Statistics
Jefferson M. Jacobs <i>B.S., University of Maine, 1998</i>	M.S.	Wildlife Biology
Andrew Bryant Johnson <i>B.A., Ohio Wesleyan University, 2000</i>	M.S.	Zoology
Shawna Karpovich <i>B.S., Michigan State University, 1989</i>	M.S.	

Anjali S. Patil
*B.C., University of Bombay
(India), 1985*

M.S. Science Management

Tim Charles Peltier
*B.S., Colorado State University,
1992*

M.S. Wildlife Biology

Timothy Artur Pilon
B.S., University of Minnesota,

Thesis: Buoyancy Effects on Building Pressurization in Extreme Cold Climates
Buoyancy effect pressuriz

Daniel Elsberg Ph.D. Geophysics
*B.S., Cornell University (New
York), 1996*

Thesis: Variations in Ice Flow and Glaciers Over Time and Space

Ice flows and glaciers change over many time and spatial scales. I studied the feedback of glacier surface change on glacier-climate interactions; ice strain rates and variations over time scales from hours to years in Antarctica; and equilibrium line altitude variations over time and space in the Chugach Mountains.

Major Professor: Dr. William D. Harrison

Mark Herzog Ph.D. Biological Sciences - Biology
*B.S., University of Arizona,
1992;*
*M.S., New Mexico State
University, 1995*

Thesis: Environmental Regulation of Growth in Black Brant

An analys

Doerte Mann Ph.D. Geophysics

*M.S., University of Kiel
(Germany), 1996*

Thesis: Deformation of Alaskan Volcanoes Measured Using SAR Interferometry and GPS
Geodetic measurements using the Global Positioning System (GPS) and synthetic aperture radar interferometry (INSAR) show deformation of Okmok, Westdahl, and Fisher volcanoes in the Alaska-Aleutian Arc. Data modeling determines the depths and volume changes of magma reservoirs beneath Okmok and Westdahl, and the hydrothermal system beneath Fisher caldera.
Major Professor: Dr. Jeffrey T. Freymueller

Dana R. Moudry Ph.D. Physics

*B.S., Carnegie Mellon University
(Pennsylvania), 1995*

Thesis: The Dynamics and Morphology of Sprites
Sprites are tens of kilometers high, fraction of a second brief optical emissions occurring above thunderstorms. Observations at one-millisecond temporal resolution of sprites and other upper atmospheric optical emissions are used to systematically categorize those with similar characteristics, and the dynamics are described. Temporal dynamics indicate chemical or ionizing changes to the atmosphere.
Major Professor: Dr. Davis D. Sentman

Katariina Nykyri Ph.D. Physics

*M.S., University of Helsinki
(Finland), 1998;
M.S., University of Alaska, 2002*

Thesis: Influence of the Kelvin-Helmholtz Instability on the Plasma Transport at the Magnetospheric Boundary
The Kelvin-Helmholtz instability (KHI) has not traditionally been expected to produce significant mass transport. The presented results show that the KHI can be a major plasma transport mechanism during times of northward IMF, transporting solar wind plasma into the plasma sheet in about two hours.
Major Professor: Dr. Antonius Otto

Christin L. Pruett Ph.D. Biological Sciences - Biology

*B.S., Southwest Baptist College
(Missouri), 1991;
M.S., Texas A & M, 1998*

Thesis: Phylogeography and Population Genetic Structure of Beringian Landbirds

lightning discharges. Multiple sprites are often observed to occur simultaneously, laterally displaced from the underlying causative cloud-to-ground lightning. The causes of this lateral displacement are presently not understood. This dissertation investigates the role of neutral density perturbations in determining the locations of sprite initiation.

Major Professor: Dr. Davis D. Sentman

Tina Tin

Ph.D. Geophysics

*B.A., University of Cambridge
(Ukraine), 1996;*

*M.Eng., University of
Cambridge (Ukraine), 1996*

Thesis: Measurement and Evolution of the Thickness Distribution and Morphology of Deformed Features of Antarctic Sea Ice

Antarctic sea ice thickness data were collected by drilling ice floes. The data were examined with the goal of enhancing our capability to estimate ice thickness remotely. Using a regional sea ice-mixed layer-