Virginia Space Grant Consortium
Student Research Conference Agenda
Old Dominion University
Ted Constant Convocation Center, Norfolk, Virginia
April 11, 2018

8:00-8:30	**Registration and Continental Breakfast**					
8:30-8:45	**Mary Sandy, VSGC Director and Chris Carter, VSGC Deputy Director Main Conference Room**					
	Breakout Room A		**Breakout Room E**		**Breakout Room D**	
	Session	**Presenter**	**Session**	**Presenter**	**Session**	**Presenter**
8:50 a.m.	**Dr. Kunio Sayanagi Hampton University Aerospace Session Chair**	**Carson Squibb Virginia Tech** Bio-inspired Aerodynamic Noise Reduction Methods Using Smart Materials and Morphing Structures	**Dr. William Moore Hampton University Moore Applied Science Session Chair**	**Cal Buelo University of Virginia** Remote Sensing of Aquatic Ecosystems Using Spatial Resilience Indicators of Algal Blooms	**Dr. Xiaou Zhang Old Dominion University Structures & Materials Session Chair**	**Lavina Backman University of Virginia** Oxidation Informed Design of Entropy Stabilized Ultra-High Temperatures Ceramics
9:05 a.m.		**Anthony Millican Virginia Tech** Application of Fast Pressure-Sensitive Paint to Characterize the Response of a Rotor to Transient Inflow Phenomena		**Shannon Cofield Old Dominion Uniersity** Geologic Mapping and Stratigraphic Analysis of a candidate Mars 2020 Landing Site: Jezero Crater, Mars		**Kevin Garner Old Dominion University** Unstructured Adaptive Mesh Refinement
9:20 a.m.		**Hunter McClelland Virginia Tech** Mapping Atmospheric Coherent Structures with Unmanned Aircraft Systems		**Carly Hawkins The College of William & Mary** Investing the Effects of Sonic Nets on Songbird Social Networks, Dominance Hierarchies, and Dispersal		**David Olson University of Virginia** Ultra FastThermal Transport Mechanisms at Organic/ Inorganic Nanoscale Interfaces

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9:35 a.m.	**Dr. Kunio Sayanagi** **Hampton University Aerospace Session Chair**	**Matthew Bailey** **Virginia Tech** Transonic Wall Interference Corrections	**Dr. William Moore** **Hampton University Applied Science Session Chair**	**Solianna Herrera** **University of Virginia** Emission Estimates of Nitrous Oxide Using Aircraft Observations of Vertical Profiles	**Dr. Xiaoyu Zhang** **Old Dominion University Structures & Materials Session Chair**	**Paul Kennedy** **Virginia Tech** Design of Ceramic Antennas Using Additive Manufacturing
9:50 a.m.		**Magdalina Moses** **VirginiaTech** Characterizing Ionospheric response to the 2017 Solar Eclipse Through Raytracing Analysis		**John Bedford** **Old Dominion University** Elucidating Determinates of Protein Stability and Folding in Extreme Environments		**Brenden Croom** **University of Virginia** Generating Toughness and Ductility in High-Temperature Ceramic Composites Through Bioinspired Microstructure Design
10:05-10:35 a.m.	**Break -- Undergraduate Research Scholar Poster Presentations** **Main Conference Room**					
	Breakout Room A		**Breakout Room E**		**Breakout Room D**	
	Session	**Presenter**	**Session**	**Presenter**	**Session**	**Presenter**
10:40 a.m.	**Dr. Kunio Sayanagi** **Hampton University Aerospace Session Chair**	**Clayton Geipel** **University of Virginia** High-Resolution OH and CH2O PLIF Measurement of Turbulent Flame Structure in a Scramjet Combustor	**Dr. William Moore** **Hampton University Applied Science Session Chair**	**Ross Petrella** **Old Dominion University** The Picosecond Pulsed Electric Field Stimulation of Human Neural Cells in Vitro	**Dr. Xiaoyu** **Old Dominion University Structures & Materials Session Chair**	**Stephanie Guthrie** **University of Virginia** Organic Molecules for Flexible Electronic and Photovoltaic Applications
10:55 a.m.		**Ellen Robertson** **Virginia Tech** Simulation Studies of Cubesat Applicable Instrumentation		**Caitlyn Colleary** **Virginia Tech** Endrogenous Biomolecules and Mechanisms for Preservation in Vertebrate Fossils in Deep time	**Dr. Xiaoyu Zhang** **Old Dominion Unversity Structures & Materials**	**Ashley Shoaf** **Old Dominion University** Investigations of Trigger Bonds and Shock-Sensitivity in High Energy Density Materials Using DFT and Wiberg Bond Indices

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11:10 a.m.	**Dr. Kunio Sayanagi Hampton University Astrophysics Session Chair**	**Steven Buckner** **Hampton University** Developing and Testing a New A-Priori Input for NUCAPS Ozone Profilesusing OMPS Limb Profiler Ozone Data	**Dr. William Moore Hampton University Applied Science Session Chair**	**Andrew Pyle** **The College of William & Mary** Quantum Pumping for Ultracold Atom Transport	***D*r. Xiaoyu Zhang Old Dominion University Structures & Materials Session Chair**	**Johnathon Upperman** **Old Dominion University** Entropy Viscosity Spectral Collocation Schemes for Solving the Insteady Navier-Stokes Equations on Adaptive Unstructured Grids
11:25 a.m.		**Hannah Lewis** **University of Virginia** Dark Matter Content of the Local Group Dwarf Galaxies		**Cameron Houser** **Virginia Tech** An Intergrative Approach to Quantifying Ecosystem Responses to Change in Forest Structure		**Victoria Cooper** **The College of William and Mary** Recovering Material Properties from Photographs Under Uncontrolled Natural Lighting
11:40 a.m.		**Andrew Burkhardt** **University of Virginia** Constraining the Formation Chemistry of Aldehydes in Star Forming Regions		**Lee J. Kordella** **Virginia Tech** Distributed High-Frequency Soundings of the Ionosphere During the 2017 Solar Eclipse		
Noon-2:00 p.m.	**Luncheon to Honor the 2017-2018 Research Scholars and Fellows** **Benjamin Hamlington, Ph.D. – Assistant Professor of Ocean, Earth and Atmospheric Sciences** **Sponsored by Old Dominion University** **By Invitation Only**					
2:00-2:30 p.m.	**Break -- Undergraduate Research Scholar Poster Presentations** **Main Conference Room**					

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2:35 p.m.	**Dr.Wouter Deconick William and Mary Astrophysics Session Chair**	**Christian Hayes University of Virginia** Extent of Mass of LMC and Metal-Poor Stars in the Milky Way	**Dr. William Moore *Hampton* University Astrophysics Session Chair**	**Allison Matthews University of Virginia** High Resolution Radio Study of Early Universe Star Formation		
2:50 p.m.	**Dr.Wouter Deconick William and Mary Astrophysics Session Chair**	**Ryan McCabe Hampton University** Analysis of Venusian Equatorial Waves Using Venus Express and Ground-Based Data	**Dr. William *Moore* Hampton University Astrophysics Session Chair**	**Trey Wenger University of Virginia** Metallicity Structure in the Milky Way		
3:05 p.m.	**Closing -- Chris Carter, VSGC -- Main Conference Room**					