

3rd AIAA Spacecraft Structures Conference 2016

Held at the AIAA SciTech Forum 2016

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4-8 January 2016

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AIAA SciTech

3rd AIAA Spacecraft Structures Conference

Meeting Location: San Diego, California, USA

Spacecraft Antennas and Apertures

Tuesday, 5 January 2016

0900 hrs

System Design Study of a Deployable Reflector Antenna with Flexible Shell Segments (AIAA 2016-0698)....1
Joseph N. Footdale, Jeremy Banik

0930 hrs

Measuring Critical Alignments of the James Webb Space Telescope Aft Optics Subsystem (AIAA 2016-0699)....12
Allison A. Barto, Benjamin Gallagher, J. S. Knight, Koby Smith

1000 hrs

Design and Deployment Testing of the Multi-Arm Radial Composite (MARCO) Reflector Antenna (AIAA 2016-0700)....22
Joseph N. Footdale, Jeremy Banik

1030 hrs

Concept Design of 15m class Light Weight Deployable Antenna Reflector for L-band SAR Application (AIAA 2016-0701)....38
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1100 hrs

Energy-Efficient Active Reflectors with Improved Mechanical Stability and Improved Thermal Performance (AIAA 2016-0702)....50

Samuel C. Bradford, Douglas C. Hofmann, Scott N. Roberts, John B. Steeves, Charles S. Wojnar, Dennis M. Kochmann

1130 hrs

Shape-Control Experiment of Space Reconfigurable Reflector Using Antenna Reception Power (AIAA 2016-0703)....59

Hiraku Sakamoto, Hiroaki Tanaka, Kosei Ishimura, Akihiro Doi, Yusuke Kono, Naoko Matsumoto, Kimihiro Kimura

1200 hrs

Shape Control of a Reflector Based on Generalized Zernike Functions (AIAA 2016-0704)....67

Lan Lan, Shuidong Jiang, Yang Zhou, Houfei Fang, Zhigang Wu, Jianming Du

High-Strain Composite Materials and Structures

Tuesday, 5 January 2016

1400 hrs

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Jonathan F. Sauder, Brian Trease

1430 hrs

Reconfigurable Deployable CubeSat Solar Arrays Usin Thin Composite Flexures (AIAA 2016-0968)....85

Ryan Yasin, Matthew J. Santer

1500 hrs

Precision High Strain Composite Hinges for the Deployable In-Space Coherent Imaging Telescope (AIAA 2016-0969)....100

Mark J. Silver, Michael A. Echter, Bryan M. Reid, Jeremy Banik

1530 hrs

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Maria Sakovsky, Sergio Pellegrino, H.M.Y.C. Mallikarachchi

1600 hrs

Free Deployment of a Sparse-Isogrid Column with High Strain Composite Ribs (AIAA 2016-0971)....139

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0930 hrs

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1000 hrs

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1100 hrs

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1130 hrs

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Spacecraft Membranes, Booms, and Trusses II

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1400 hrs

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1530 hrs

Natural Frequency Optimization and Stability Analysis of Bistable Carbon Fiber Reinforced Plastic Booms for Space Applications (AIAA 2016-1472)....260
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Cory Rupp, Laura Schweizer, David M. Murphy

1000 hrs

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1030 hrs

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Theodore G. Stern, Kenneth Steele

1100 hrs

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1130 hrs

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Spacecraft Solar Array Structures II

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1430 hrs

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1500 hrs

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Gyula Greschik

1530 hrs

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1600 hrs

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0900 hrs

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1000 hrs

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Mark Thomson

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1200 hrs

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