

Space Solar Power 2019 Program @ IEEE WiSEE 2019

Wednesday Oct. 16 2019

SSP – S1 (9:30-11:30) *An Introduction to SSP, Chair: Darel Preble*

A Current Space Solar Power Introduction & Overview; **Darel Preble**, SSP Institute;

WHY Space Solar Power; **Darel Preble**; SSP Institute;

HOW do we build Space Solar Power?; **Darel Preble**; SSP Institute;

SSP – S2 (13:30 – 15:30) *Antenna Technologies for Space, Chair: Reza Zekavat*

Spacenna Flatness and Error Correction; **Abigail Finell**; **Penghui Heng**; **Sawyer Pawell**; **Peter Schubert**; Purdue University

All-Electric Aircraft Localization Performance Study via Space Solar Power Satellite Constellation; **Shu Ting Goh**; National University of Singapore; **Reza Zekavat**; Worcester Polytechnic Institute (WPI)

Antenna Arrangement Verification for Low Sidelobe Levels; **Abigail Finell**; **Peter Schubert**, Purdue

SSP – S3 (16:00 – 17:30) *SSP Keynote: Satellite Development and Launching, a Hands on Experiment*; by Prof. Greg Durgin; *Chair: Darel Preble*

Cheng Qi², Quentin Frederick¹, Kaleb Davis¹, Dakota Lindsay¹, Julie Cox¹, Stephen Parke¹, Joshua; D. Griffin¹, **Gregory D. Durgin**², “Update on the RFTsat Mission Launch – (Sort of) The World’s First Space Solar Power Satellite.” ¹Northwest Nazarene University, ²Georgia Tech.

Thursday Oct. 17 2019

SSP – S4 (9:00 – 11:30) *Microwave Power Transfer, Chair: Darel Preble*

Erik Centeno, Evan Shi, Rafael Figueroa, Cheng Qi Gregory D. Durgin, “Next Generation Transparent RF Rectenna Design for Space Solar Power Collection Sites.” *Georgia Tech.*

Emily Backer¹, Mohammad Alhassoun², Gregory D. Durgin², “Design of a Circular-Patch Reflectarray for Microwave Power Transfer and Communications in Space.” ¹ViaSat Corp, ²Georgia Tech.

Gregory D. Durgin, “The Interdependence of Space Solar Power Satellite Aperture Design and Orbital Mechanics.” *Georgia Tech* Georgia Tech;

SSP – S5 (13:30 – 15:30) *Special Topics on Commerce and Economy, Chair: Reza Zekavat*

The Space Debris Problem facing Space Commerce; **D Preble**, SSP Institute;

Don’t count on Rising Energy Prices; **Gail Tverberg**, SSP Institute;

SSP – S6 (16:00 – 17:30) *Photovoltaic Technologies; Chair: Darel Preble*

Space Solar Power's Photovoltaic Reliability (PVR) Overview, **Henry Brandhorst**, Carbon-Free Energy, LLC

Understanding and Designing Interfaces and Defects in Perovskite Solar Cells, **Juan-Pablo**, Correa-Baena, Georgia Institute of Technology;

Friday Oct. 18 2019

SSP – S7 (9:00 – 10:30) *Tutorial*

Localization Technologies for Space – Part I; Reza Zekavat, WPI

SSP – S8 (10:45 – 12:00) *Tutorial*

Localization Technologies for Space – Part II; Reza Zekavat, WPI