

2024 AFOSR/NASA Radiation Mitigation Review

Drs. Ali Sayir (AFOSR), Chris Lang (NASA LaRC), Matthew Berg (Kansas State University) and Ms. Elora Kurz (NASA LaRC), | July 16-17, 2024 | Hampton, VA

NASA Langley Research Center
2 Langley Blvd
Hampton, VA 23666

Agenda Day 1 | Tuesday, July 16, 2024

Time	Topic	Speaker
8:00-8:55	Arrival & Badging	
9:00-9:15	Welcome	Dr. Stan Smeltzer, NASA Langley
9:15-09:25	Welcome	Dr. Ali Sayir, AFOSR
9:30-09:50	Low-Earth Orbit Flight Test of an Inflatable Decelerator (LOFTID) Mission Overview	Dr. Neil Cheatwood, NASA Langley
9:55-10:25	Overview: Simulating Radiative Transport through Fibrous Insulation	Prof. Matthew Berg, Kansas State University
10:30-10:50	BREAK	
10:55-11:35	Papermaking and the Manufacturing of Hypersonic Materials	Dr. Autumn Elniski, State University of New York
11:40-1:00	LUNCH	
1:05-1:45	Predictive Models for High Temperature Fibrous Insulation	Dr. Lucas Paulien, Kansas State University
1:50-2:20	Approximate Models for Radiative Transfer in Fibrous Insulation at High Temperature	Dr. Sergio Carvajal, Kansas State University
2:50-3:20	Optimization and Manufacturing of Opacified Fibrous Insulation	Mr. Steve Miller, HeetShield
3:25-4:10	Radiation Model Calibration and Process Parameter Optimization Using Sequential Design of Experiments	Dr. Akshay J. Thomas, Purdue University
	MEETING ADJOURN	

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Agenda Day 2 | Wednesday, July 17, 2024

Time	Topic	Speaker
8:00-8:55	Arrival & Badging	
9:00-9:30	Thermal Management Challenges for Space Nuclear Systems	Dr. Anthony Calomino, NASA Headquarters
9:35-10:35	Theoretical and numerical solutions of extinction coefficient and scattering phase function of fibrous media	Prof. Kursat Sendur, Sabanci University
10:40-11:00	BREAK	
11:05-11:35	Predictive Models for Radiation Heat Transfer Through Fibrous Insulation Materials	Dr. Christopher Lang, NASA Langley
11:40-1:00	LUNCH	
1:05-1:35	Properties and Applications of Zeolites	Dr. Ioulia Valla, University of Connecticut
1:40-2:40	Engineering Thermally Emissive Properties using Multilayer Oxides	Dr. Michelle Povinelli, University of Southern California
2:50-3:30	James H. Starnes Structures and Materials Laboratory Tour	
3:45-4:15	LOFTID Tour	
	MEETING ADJOURN	