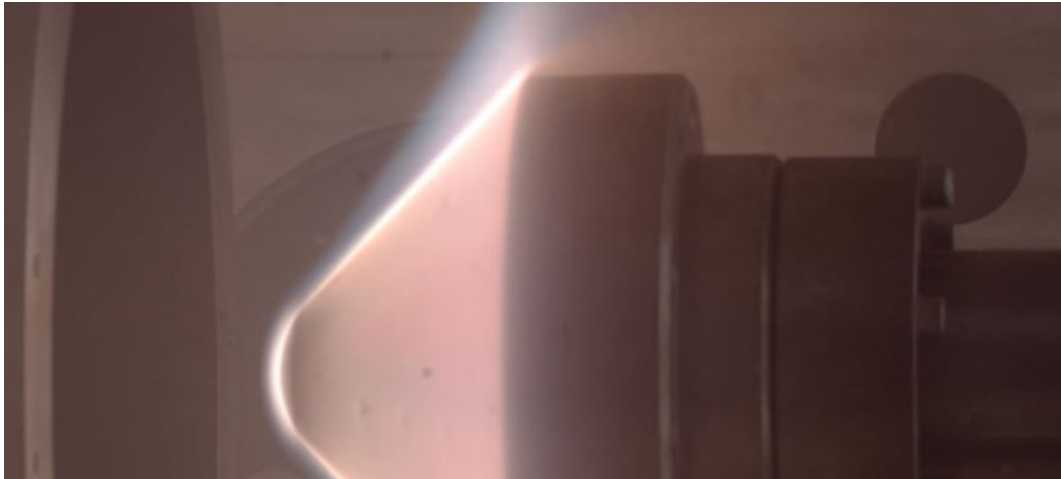


Session Program

Sep 9 - 12, 2024



10th International Workshop on Radiation of High Temperature Gases for Space Missions

Radiation modeling and simulation

University Oxford, Oxford e-Research Centre
7 Keble Rd, Oxford OX1 3QG United Kingdom

Mon, September 9

9:25 AM

Radiation modeling and simulation

Session | **Location:** University Oxford, Oxford e-Research Centre, 7 Keble Rd, Oxford OX1 3QG United Kingdom

9:25 - 9:50 AM **Thermochemical Characterisation of Shock Heated Flows**

Speakers

Alex Glenn, Matthew Mcgilvray

9:50 AM

2:00 PM

Radiation modeling and simulation

Session | **Location:** University Oxford, Oxford e-Research Centre, 7 Keble Rd, Oxford OX1 3QG United Kingdom

2:00 - 2:25 PM **Sensor-based Radiation Signature Computations in Hypersonic Flow using a Reverse Photon Monte Carlo Method**

Speaker

Prof. Christian Mundt

2:25 - 2:50 PM **Kinetic Modeling and Impact of Methane on Radiative Heating for Ice and Gas Giant Entry**

Speaker

Alex Carroll

2:50 - 3:15 PM **Aerothermodynamic, material response and radiation modelling for the detection of demising spacecraft during re-entry**

Speaker

Catarina Garbacz

3:15 - 3:40 PM **A reinvestigation of the C\$₂\$ Deslandres-d'Azambuja radiative system**

Speaker

Mario Lino da Silva

3:40 PM

Tue, September 10

11:10 AM

Radiation modeling and simulation

Session | **Location:** University Oxford, Oxford e-Research Centre, 7 Keble Rd, Oxford OX1 3QG United Kingdom

11:10 - 11:40 AM Radiative Heating for Ice Giant Entries

Speaker

Mario Lino da Silva

11:40 AM - 12:05 PM Characterization of high temperature N₂/CH₄ emission

Speaker

Cyrine Merhaben

12:05 - 12:30 PM

Through-Model Fibre Optic Emission Spectroscopy for Studying Planetary Entry Radiative Heat Flux

Speaker

Chris James

12:30 PM

1:55 PM

Radiation modeling and simulation

Session | **Location:** University Oxford, Oxford e-Research Centre, 7 Keble Rd, Oxford OX1 3QG United Kingdom

2:00 - 2:25 PM

Electron Number Density Estimation for High-Speed Mars Entry Condition

Speaker

Yu Liu

2:25 - 2:50 PM

Calibration of Rate Parameters Against Shock Tube Emission Spectroscopy

Speaker

Kaelan Hansson

2:50 PM

4:05 PM

Radiation modeling and simulation

Session | **Location:** University Oxford, Oxford e-Research Centre, 7 Keble Rd, Oxford OX1 3QG United Kingdom

4:05 - 4:30 PM Shock Curvature Effects in Shock Tube Data

Speaker

Justin Clarke

4:30 PM

Wed, September 11

11:50 AM

Radiation modeling and simulation

Session | **Location:** University Oxford, Oxford e-Research Centre, 7 Keble Rd, Oxford OX1 3QG United Kingdom

11:50 AM - 12:20 PM

Investigation of Shock Speed Variation Effects on Expanding Flow Experiments in the NASA Electric Arc Shock Tube

Speaker

Kanishk Ganga

12:40 PM

Thu, September 12

2:00 PM

Radiation modeling and simulation: Missions

Session | **Location:** University Oxford, Oxford e-Research Centre, 7 Keble Rd, Oxford OX1 3QG United Kingdom

2:00 - 2:25 PM

Electron Number Density Measurement in the T6 Stalker Tunnel utilising Langmuir Probes

Speaker

Nathalie Nick

2:25 - 2:50 PM

Mitigating dragonfly tps design risks through improved aerothermal environments

Speaker

Dr Aaron Brandis

2:50 - 3:15 PM

Ultra-Highspeed Optical Emission Spectroscopy: Benefits and Difficulties

Speaker

Nathan Lu

3:15 PM