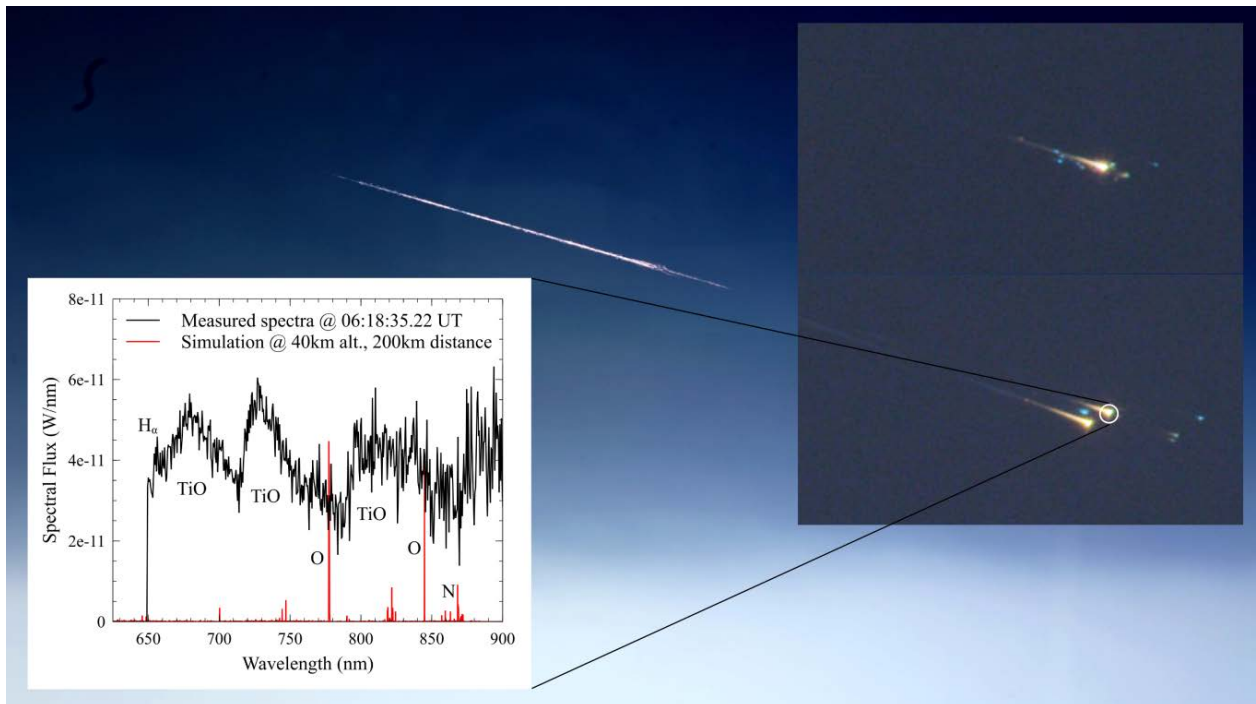




Second Announcement

7th International Workshop on Radiation of High Temperature Gases in Atmospheric Entry



Snapshot from the observation data of the airborne re-entry observation campaign of WT1190F 13th November 2015
P. Jenniskens, J. Albers, M. Koop, M. Odeh, K. Al-Noimy, K. Al-Remeithi, K. Al-Hasmi, R. Dantowitz, F. Gasdia,
S. Löhle, F. Zander, T. Hermann, T. Lips
(more details presented at the AIAA Scitech 2016, 4–8 Jan. 2016, San Diego, CA)

21 November 2016 –25 November 2016
High Enthalpy Flow Diagnostics Group (HEFDiG)
Institute of Space Systems (IRS)
Stuttgart, Germany

INTRODUCTION

The workshop is organized by the Working Group “Radiation of High Temperature Gas” (WG RHTG) settled by CNES and ESA. The workshop is sponsored by ESA Technology Directorate as well as ESA Science Directorate and by CNES through the Research & Technology program.

The meeting is devoted to promote a dialogue on the state of the art and recent advances for simulation/modeling and experimental techniques of hypersonic radiating gas flows. In this frame, a limited number of test cases will be validated with respect to efficiency and accuracy of different methods and experimental approaches, for the determination of radiative heat fluxes encountered during atmospheric entry. The workshop provides the opportunity to explore new areas of research in order to face the challenges of future space flight.

2016, the workshop will be held at the Institute of Space Systems (IRS) of the University of Stuttgart and is organised by the High Enthalpy Flow Diagnostics Group. The workshop will take place in the Space Center of Baden-Württemberg.

TOPICS

- Scientific and technical papers on:
 - Non Equilibrium Chemical Kinetics
 - Hypersonic Flow
 - Plasma Emission and Absorption
 - Numerical Simulation of radiative heat transfer
 - Instruments, experimental techniques and facilities
 - Flight Experiments
- Invited papers of general interest for RHTG
- Test-cases, which are organized in three topics:
 - Radiation emission & transfer databases and models
 - Re-building of selected radiative emission and absorption experiments
 - Numerical axially symmetric test-cases for non-equilibrium flow and radiation emission and absorption calculations
- Preparation of future test-cases:
 - Identification of suitable experimental results, relevant literature data and previous re-building activities

No new test cases have been introduced in 2016. The test-case definitions and instructions to authors are available in the subdirectory group_r/RG2016 on the following ftp server:

Via Internet Browser:

ftp://lisbon-r:Esa2012_@ftp.estec.esa.int

Via ftp:

[ftp.estec.esa.int](ftp://ftp.estec.esa.int)
login name: lisbon-r
password: Esa2012_

Participants are encouraged to focus on Mars and Earth entry test cases.

Most up-to-date workshop information is posted as soon as available on:

<http://www.irs.uni-stuttgart/rhtg> and

<http://cct.cnes.fr/content/7th-international-workshop-radiation-high-temperature-gases-atmospheric-entry>

Registration will be performed through the second site (<http://cct.cnes.fr/content/7th-international-workshop-radiation-high-temperature-gases-atmospheric-entry>)

For further information please contact:

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CALL FOR PAPERS

The proper format description for test-case results is given at the end of each test-case booklet.

Presentations will be in English with duration of 20 min. plus 10 min. for Q&A. In case a very large number of papers is accepted, the duration may be shortened. It is intended

to publish the presentations as well as the papers on a server, unless the authors inform the organising committee that they do not want to distribute their presentation.

Abstracts (for general-purpose and for test-case papers) must be in PDF format and 1 page maximum, including figures. They should be submitted to the organising committee (Lionel.Marraffa@esa.int , with copy to Julien.Annaloro@cnes.fr) before September 30, 2016 and should contain the following information:

- Title of the paper (in title case)
- Names and affiliations of all co-authors
- The relevant topic of the submitted abstract
- Contact details of the corresponding author

Instructions to authors specifying the format of the papers can be found in the ftp server mentioned here above.

CALENDAR OF EVENTS

| | |
|--------------------|--|
| April 2016 | 1st Announcement |
| June 2016 | 2nd Announcement |
| September 30, 2016 | Abstract reception deadline |
| October 2016 | Notification of acceptance to authors |
| October 2016 | Final announcement + complete program |
| November 14, 2016 | Paper submission and test case database deadline |

REGISTRATION

It is intended to waive the fees for all workshop participants. However, the number of places is limited. Therefore, applicants are strongly advised to pre-register shortly after second announcement by sending an e-mail to the organizing committee (Lionel.Marraffa@esa.int, with copy to Julien.Annaloro@cnes.fr, containing their contact data with the subject "RHTG Workshop registration".

ORGANISING COMMITTEE

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B. Cruden (NASA)

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Databases
Measurement techniques

P. Boubert (CORIA, France)
A. Bultel (CORIA, France)
M. Lino Da Silva (IST, Portugal)
F. De Filippis (CIRA)

WORKSHOP SECRETARIAT

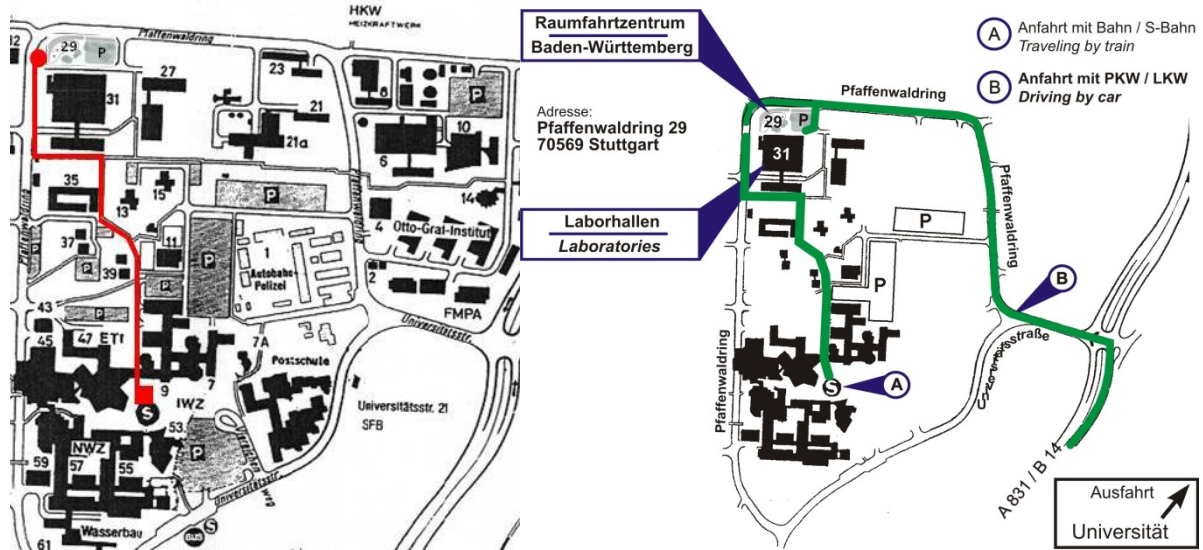
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Directions to IRS

By car:

Take the A831 from the Stuttgart motorway intersection in the direction of Stuttgart, south-center. Take the exit "Universität" and turn at the first traffic lights. You get to the point B of the site plan.



By train:

From the central station walk down the stairs to the subway (indicated by a green S). Hop on one of the lines S1, S2 or S3 direction Herrenberg, Filderstadt or airport. Get off at the fourth stop "Universität". Leave the train station through the exit "University Center".

By airplane:

From Stuttgart Airport, go down the stairs to the subway (indicated by a green S). Hop on one of the lines S2, S3 with direction Schorndorf or Backnang. Get off at the 7th Stop "Universität". Leave the train station through the exit "University Center".

Hotels:

- *Commundo Tagungshotel Stuttgart (rooms are preallocated at a University rate, please mention "RHTG workshop")*

Universitätsstr. 34, 70569 Stuttgart (located on the campus)
<http://www.commundo-tagungshotels.de/stuttgart/stuttgart.html>

- Hotel REGA (downtown)
Ludwigstr. 18-20, 70197 Stuttgart
www.rega-hotel.de
- Central Classic (downtown)
Hasenbergstraße 49a, 70176 Stuttgart
www.central-classic.de/