

Third and Final Announcement

Fifth International Planetary Probe Workshop

<http://www.rssd.esa.int/SM/IPPW/>

IPPW-5

Short Course: 23-24 June 2007

“Controlled Entry and Descent into Planetary Atmospheres”

Workshop: 25-29 June 2007

Bordeaux, France

<http://www.rssd.esa.int/SM/IPPW/>

The next steps in the robotic exploration of the solar system involve missions to planets and satellites with significant atmospheres. The four giant planets Jupiter, Saturn, Uranus and Neptune have bottomless atmospheric oceans, whereas Mars, Venus and Saturn’s moon Titan have solid accessible surfaces. The **International Planetary Probe Workshop** brings together scientists, spacecraft engineers, technologists, and mission designers interested in the technological challenges and scientific opportunities involved in entry, descent and flight in planetary atmospheres.

OBJECTIVES OF FIFTH INTERNATIONAL PLANETARY PROBE WORKSHOP

The **Fifth International Planetary Probe Workshop (IPPW-5)**, to be held in Bordeaux, France, will build upon the accomplishments of four previous workshops - two held in Europe (Lisbon, Portugal, 2003 and Athens, Greece, 2005) and two in the USA (NASA Ames Research Center, 2004 and Pasadena, 2006). As with previous workshops, key objectives include **fostering international involvement and collaboration** in probe exploration of planetary atmospheres, and **engaging the next generation of scientists and engineers** in this exciting field.

The workshop will continue to focus on the science, technology, and mission design of probe missions to the **Outer Planets** and **probe and aerial platform missions to Mars, Venus and Titan**. There will be a session on technologies for the extreme environments experienced in entry, descent and flight at these targets.

A two day short course on “**Controlled Entry and Descent into Planetary Atmospheres**” will be held in Bordeaux on June 23-24.

WORKSHOP GOALS

The **general goals** of the **International Planetary Probe Workshops** are:

- **To Review** the state-of-the-art in science, mission design, engineering implementation and technology for the *in situ* robotic exploration of planets with atmospheres
- **To Share** ideas, mission opportunities, and emerging technologies to enable future mission success.
- **To Serve** as a forum for initiating discussions on innovative methodologies and techniques for future missions to explore planets and satellites with atmospheres.
- **To Involve** young scientists and engineers in the field of entry, descent and flight in planetary atmospheres in an opportunity to learn from experienced researchers and practitioners.
- **To Foster** international collaboration among the communities of scientists, engineers, and mission designers interested in planetary probes.

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LOCATION: The Fifth International Planetary Probe Workshop will be held at the **AREPA Conference Center** in Bordeaux, France. The AREPA Conference Center is located in the Center of Bordeaux.

DATES: The workshop will last for 4 1/2 days, beginning on Monday morning, June 25 and ending at mid-day on Friday, June 29, 2007.

SHORT COURSE: Immediately preceding the workshop, on 23-24 June 2007 a two-day short course will be offered: “**Controlled Entry and Descent into Planetary Atmospheres**”.

REGISTRATION: Late registration fees now apply for the Workshop and Short Course:

Workshop

Regular: **400 Euros**

Student: **125 Euros**

Short Course

Regular and Student: **125 Euros**

Registration information can be found at

http://www.rssd.esa.int/SM/IPPW/Page_doc/REG.htm

HOTEL: Early summer is high tourist season in Bordeaux. Block bookings have been made in several 2-star, 3-star, and 4-star hotels. Although the deadline for guaranteed workshop rates has passed, some rooms are still available at this preferred rate. For more information on the workshop hotels, please check

http://www.rssd.esa.int/SM/IPPW/Page_doc/HA.htm

Hotel space is very limited in Bordeaux and few rooms remain available. Please make reservations as soon as possible.

MEALS: The Workshop registration fee includes morning and afternoon refreshments, coffee, pastries and buns. Lunch will be provided only on Monday, Tuesday and Thursday

BANQUET: The IPPW-5 banquet will be held in the evening of Tuesday, June 26 at an attractive location. The cost of the banquet is included in the workshop registration fees. Cost for accompanying persons is 60 Euros. Attire for the banquet is casual. Please check the web page for further details and latest information.

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EXCURSION

An excursion to SAINT EMILION is planned on the afternoon of Wednesday, June 27. The cost for the excursion, not included in the workshop registration fee is 40,00 Euros per person and includes lunch in Bordeaux, a guided visit of the medieval town and its monuments, and a guided visit and wine tasting in an estate of Saint Emilion.

PLEASE NOTE: The cost of the excursion is not included in the registration fees for workshop registrants.

For information on registering for the excursion, and for guests to register for the banquet and excursion, please check

http://www.rssd.esa.int/SM/IPPW/Page_doc/REG.htm

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PROGRAMME OVERVIEW

Monday June 25

OPENING, WELCOME

SESSION I: **CURRENT OUTLOOK.** CONVENERS: S. HUBBARD (SETI INSTITUTE) AND J.-P. LEBRETON (ESA/ESTEC)

SESSION II: **MISSION CONCEPT STUDIES AND SCIENCE DRIVERS OF TECHNOLOGY, AND SAMPLE RETURN – VENUS AND MARS.** CONVENERS: K. BAINES (JPL), B. BIENSTOCK (JPL), AND P. PLOTARD (EADS)

Tuesday June 26

SESSION III: **ENTRY, DESCENT AND LANDING CONCEPTS FOR CURRENT AND FUTURE MISSIONS BEYOND EARTH.** CONVENERS: M. WRIGHT (NASA-ARC), A. BALL (OPEN UNIV.), AND W. LEE (JPL)

SESSION IV: **TECHNOLOGY SYSTEMS - ELECTRONICS, INSTRUMENTS & SENSORS, COMMUNICATIONS & BATTERIES.**
CONVENERS: P. BEAUCHAMP (JPL) AND TH. BLANQUAERT (ESA/ESTEC)

BANQUET

Wednesday June 27

SESSION V: **MISSION CONCEPT STUDIES AND SCIENCE DRIVERS OF TECHNOLOGY – GIANT PLANETS AND TITAN.** CONVENERS: A. COUSTENIS (OBSERVATOIRE DE MEUDON) AND T. SPILKER (JPL)

FREE AFTERNOON – SOCIAL ACTIVITIES – EXCURSION TO SAINT-EMILION

Thursday June 28

SESSION VI : **ENTRY, DESCENT, AND LANDING TECHNOLOGIES FOR PLANETARY MISSIONS.** CONVENERS: N. CHEATWOOD (NASA LARC) , D. LEBLEU (THALES ALENIA SPACE)

SESSION VII: **EMERGING, ENABLING, AND EXTREME ENVIRONMENT TECHNOLOGIES; CROSS-CUTTING TECHNOLOGIES.**
CONVENER: L. PELTZ (BOEING)

SESSION VIII: **EARTH ENTRY, DESCENT, AND LANDING FOR SAMPLE RETURN AND CREWED MISSIONS.** CONVENERS: J. ARNOLD (NASA ARC) AND B. FOING (ESA/ESTEC)

Friday June 29

SESSION VIII: **EARTH ENTRY, DESCENT, AND LANDING FOR SAMPLE RETURN AND CREWED MISSIONS.** CONVENERS: J. ARNOLD (NASA ARC) AND B. FOING (ESA/ESTEC)

SESSION IX: **FUTURE OUTLOOK AND CLOSING SESSION.** CONVENERS: J. CUTTS (JPL) AND J.-P. LEBRETON (ESA/ESTEC)

PLEASE CHECK THE IPPW-5 WEBSITE [HTTP://WWW.RSSD.ESA.INT/SM/IPPW/](http://www.rssd.esa.int/SM/IPPW/) FOR UPDATES TO THE WORKSHOP SCHEDULE.

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INFORMATION FOR STUDENTS

http://www.rssd.esa.int/SM/IPPW/Page_doc/SA.htm

The Student Scholarship will cover all expenses related to attendance at the workshop, up to the maximum stated for the particular award. Anything spent beyond that will have to be covered from other sources. In general the student reimbursements will be made for the following expenses incurred:

- Travel (air, train, taxi, bus, airport parking, rental car, parking, etc. with receipts etc.)
- Accommodation
- Registration fee for the workshop
- Registration fee for the short course
- The workshop banquet on 26 June (but not the St Emilion wine tour on 27 June)
- Other meals (please retain receipts)

Detailed information and forms for reimbursement will be provided in your registration packet upon arrival in Bordeaux.

INFORMATION FOR AUTHORS

Preliminary information posted at

http://www.rssd.esa.int/SM/IPPW/Page_doc/AS.htm

Please check for updates.