



# 5<sup>TH</sup> HAMLET PUBLIC OUTREACH EVENT RHEINBACH, 15 September 2011



## RADIATION AND HUMAN SPACEFLIGHT

### Topics

- Human Space Exploration
- Hazards from Space Radiation
- From Apollo to the ISS
- The MATROSHKA Project
- How Do We Measure Space Radiation
- To Moon, Mars and Beyond

### Space Hardware Exhibition



[www.fp7-hamlet.eu](http://www.fp7-hamlet.eu)

Organized by German Aerospace Center, DLR, Cologne

Joint Event with the Gesellschaft für Biologische Strahlenforschung e.V.

Jahrestagung 2011 <http://strahlenforschung.de>

## LOCATION

Hochschule Bonn-Rhein-Sieg, CAMPUS Rheinbach  
15 September 2011 / 08.30 - 14.00

**HUMAN MODEL MATROSHKA FOR RADIATION EXPOSURE DETERMINATION OF ASTRONAUTS (HAMLET)**  
The HAMLET project is funded by the European Commission's Seventh Framework Programme under contract no. 218817.





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## PROGRAMME

<b>Heavy Ions in Therapy and Space</b> M. Durante, GSI, Darmstadt, Germany	08:30	09:15
<b>HAMLET: Health Risks for Humans in Space</b> M. Hajek, ATI Vienna, Austria	09:15	09:35
<b>HAMLET: Space Radiation Research from Apollo to ISS</b> G. Reitz, DLR, Cologne, Germany	09:35	09:55
<b>From MATROSHKA to HAMLET</b> T. Berger, DLR, Cologne, Germany	09:55	10:15
<i>Coffee break</i> <i>Space Hardware Exhibition / HAMLET Poster Session</i>	10:15	11:45
<b>HAMLET: Active Radiation Detectors</b> S. Burmeister, CAU, Kiel, Germany	11:45	12:00
<b>HAMLET: Thermoluminescence Detectors</b> P. Bilski, IFJ PAN, Kraków, Poland	12:00	12:15
<b>HAMLET: Nuclear Track Etch Detectors</b> J. Palfalvi, KFKI AEKI, Budapest, Hungary L. Hager, HPA, Chilton, United Kingdom	12:15	12:30
<b>HAMLET: Radiation Transport Codes</b> L. Sihver, CUT, Göteborg, Sweden	12:30	12:45
<b>HAMLET: Conclusion</b> G. Reitz, T. Berger, DLR, Cologne, Germany	12:45	13:00
<i>Lunch break</i> <i>Space Hardware Exhibition / HAMLET Poster Session</i>	13:00	13:45

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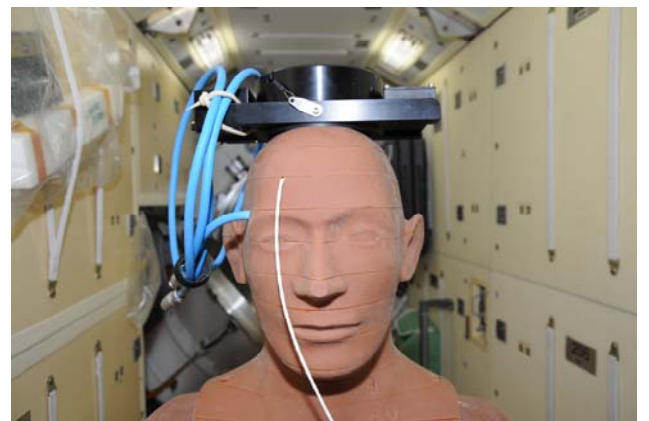
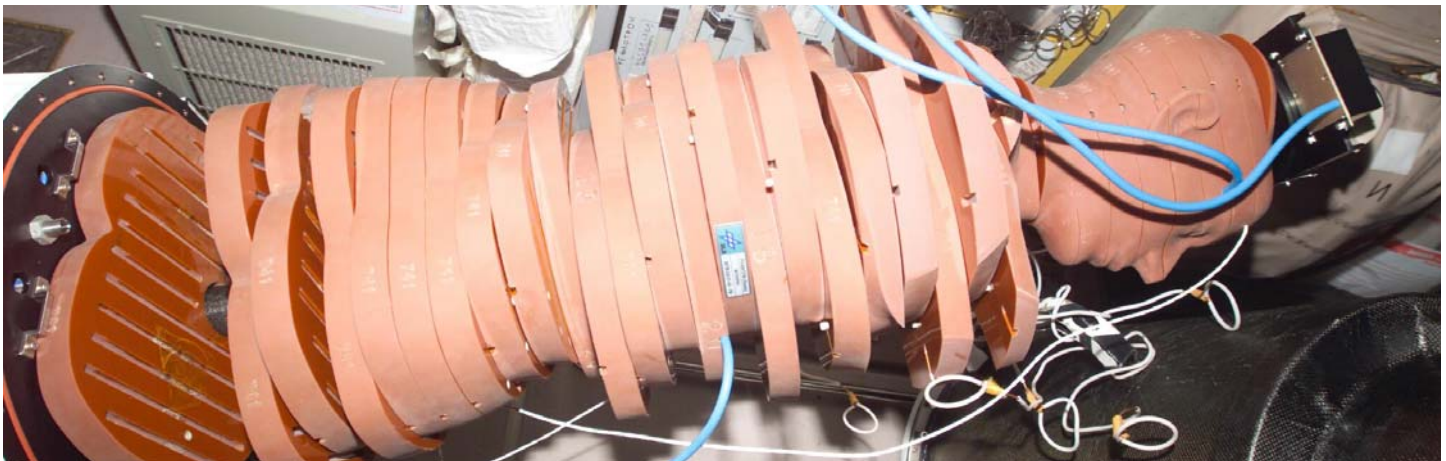
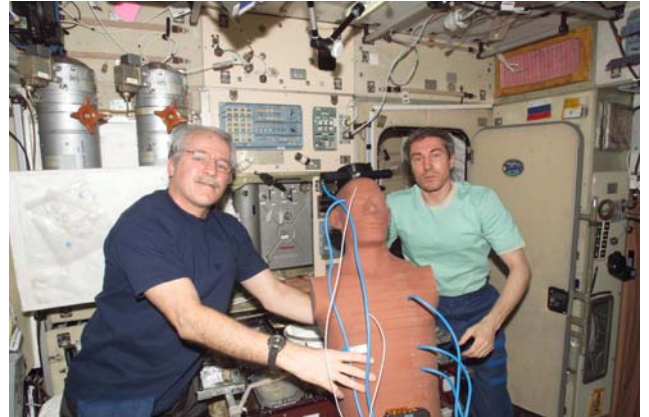
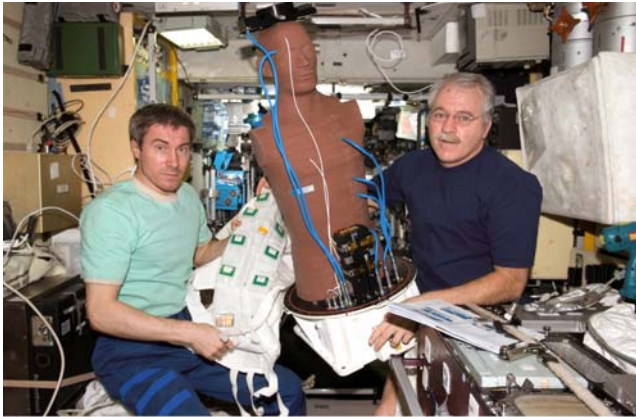




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## SPACE HARDWARE EXHIBITION



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## HISTORY OF PUBLIC OUTREACH EVENTS

**1<sup>st</sup> HAMLET PUBLIC OUTREACH EVENT**  
VIENNA, 1-2 April 2009

**RADIATION AND HUMAN SPACEFLIGHT**

[www.fp7-hamlet.at](http://www.fp7-hamlet.at)  
Organized by Dr. Michael Hajek (TUW), Dr. Thomas Berger (DLR)

**Topics**

- Human Space Exploration
- Hazards from Space Radiation
- How Do We Measure Space Radiation?
- The MATROSHKA Project
- From Apollo to the ISS
- To Moon, Mars and Beyond ...

Exhibition space:ert

**VIENNA UNIVERSITY OF TECHNOLOGY**  
1040 Vienna, Karlsplatz 13 Free Entrance

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**HAMLET PUBLIC OUTREACH EVENT**  
OXFORD, 21<sup>st</sup> January 2010

**RADIATION AND HUMANS IN SPACE**

Organized by Health Protection Agency

**Talks & exhibition:**

- Human space exploration
- Hazards from radiation in space
- How do we measure radiation in space?
- From Apollo to the ISS to the Moon, Mars and beyond...
- The MATROSHKA Project

Local contact: Luke Hager (HPA) Tel: 01235 822827 E-mail: [HAMLET@hpa.org.uk](mailto:HAMLET@hpa.org.uk)

**ST CATHERINE'S COLLEGE** **FREE ENTRY**  
Manor Road, OXFORD OX1 3UJ  
Repeat half-day sessions starting at 10 am and 1.30 pm

HUMAN MODEL MATROSHKA FOR RADIATION EXPOSURE DETERMINATION OF ASTRONAUTS (HAMLET)  
www.fp7-hamlet.org.uk  
HAMLET is funded by the European Commission's Seventh Framework Programme under contract no. 218817

**3<sup>rd</sup> HAMLET Public Outreach Event**  
Budapest, 12<sup>th</sup> October 2010

**Radiation and Humans in Space**

[www.fp7-hamlet.hu](http://www.fp7-hamlet.hu)  
Organized by Atomic Energy Research Institute

**Topics**

- Human Space Exploration
- Hazards from radiation in space
- How do we measure space radiation?
- The MATROSHKA project
- To Moon, Mars and Beyond

**Budapest University of Technology**  
1111 Budapest, Egry József str. 20. - Building 'A'  
**Free entry**

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**4<sup>th</sup> HAMLET PUBLIC OUTREACH EVENT**  
KRAKÓW, 5<sup>th</sup> April 2011

**RADIATION AND HUMANS IN SPACE**

Organized by the Institute of Nuclear Physics IFJ PAN, Kraków

**Topics**

- Human Space Exploration
- Hazards from Space Radiation
- How Do We Measure Radiation in Space?
- The MATROSHKA Project
- From Apollo to the ISS
- To Moon, Mars and Beyond

**Special Guest:**  
Miroslaw Hermaszewski  
- the first Polish astronaut

**PLACE AND TIME:** Polish Academy of Arts and Sciences (PAU)  
Sławkowska 17, 9:30 - 15:30 **FREE ENTRY**

For details see: [hamlet.ifj.edu.pl](http://hamlet.ifj.edu.pl), [www.fp7-hamlet.pl](http://www.fp7-hamlet.pl)

HUMAN MODEL MATROSHKA FOR RADIATION EXPOSURE DETERMINATION OF ASTRONAUTS (HAMLET)  
THE HAMLET PROJECT IS FUNDED BY THE EUROPEAN COMMISSION'S SEVENTH FRAMEWORK PROGRAMME UNDER CONTRACT NO. 218817.

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