

Summer school "Living with a star: Basics in Space Life Sciences"

Sunday, 23/08/2009		Monday, 24/08/2009		Tuesday, 25/08/2009		Wednesday, 26/08/2009		Thursday, 27/08/2009		Friday, 28/08/2009		
	Arrival	8:00 - 9:00 h	Breakfast, Registration	8:00 - 9:00 h	Breakfast	8:00 - 9:00 h	Breakfast	8:00 - 9:00 h	Breakfast	8:00 - 9:00 h	Breakfast	
		9:00 - 10:00	Introduction to SpaceLife	9:00 - 11:00	Space Medicine	9:00 - 11:00	Radiation Biology	9:00 - 10:30	Radiation Biology	09:00 - 12:30	09:00	Bus Transfer
		10:00	Welcome								10:00 - 12:30	German Aerospace Center (DLR) Cologne
		10:15 - 11:15	Astrobiology									
		11:15 - 11:45	Coffee Break	11:00 - 11:30	Coffee Break	11:00 - 11:30	Coffee Break	10:30 - 11:00	Coffee Break			
		11:45 - 12:45	Astrobiology	11:30 - 12:30	Space Medicine	11:30 - 12:30	Radiation Biology	11:00 - 13:00	Gravitational Biology			
		12:45 - 14:00	Lunch	12:30 - 13:45	Lunch	12:30 - 13:45	Lunch	13:00 - 14:15	Lunch	12:30	Lunch at DLR Casino	
		14:00 - 16:00	Astrobiology	13:45 - 15:45	Space Medicine	13:45 - 15:45	Radiation Biology	14:15 - 16:15	Gravitational Biology	14:00	Bus Transfer	
		16:00 - 16:30	Coffee Break	15:45 - 16:15	Coffee Break	15:45 - 16:15	Coffee Break	16:15 - 16:45	Coffee Break	14:30 - 17:00	German Sports University (DSHS) Cologne	
		16:30 - 19:00	Astrobiology	16:15 - 18:15	Space Medicine	16:15 - 19:15	Radiation Biology	16:45 - 18:15	Gravitational Biology			
18:00 - 19:00 h	Registration		18:15 - 19:00	Radiation Biology								
19:00 - 22:00 h	Dinner	19:00 - 20:00	Dinner	19:00 - 20:00	Dinner	19:15 - ...	Barbecue	18:30 - 22:30	Guided Tour and Dinner at SeaLife Köngiswinter	17:30	Departure	
		20:00 - 21:00	SpaceLife Q & A Session									

Summer school

"Living with a star: Basics in Space Life Sciences"



August, 23 – 28, 2009, at the Physikzentrum in Bad Honnef

Sunday, August 23, 2009		Arrival
18:00		Registration
19:00		Dinner
Monday, August 24, 2009		
08:00		Breakfast
		Registration - <i>SpaceLife Doctoral Students</i>
	<i>SpaceLife Workshop – for SpaceLife Doctoral Students</i>	<i>Other Participants</i>
09:00	Dr. Christine Hellweg DLR, Institute of Aerospace Medicine <i>Official Start of the Summer School</i>	Introduction to SpaceLife Registration
10:00	Prof. Dr. Rupert Gerzer DLR, Institute of Aerospace Medicine	Address of Welcome
10:15	Dr. Gerda Horneck DLR, Institute of Aerospace Medicine	Steps to Life
11:15		Coffee Break
11:45	Dr. Petra Rettberg DLR, Institute of Aerospace Medicine	Astrobiology: History of Life on Earth
12:45		Lunch
14:00	Dr. Harald Huber / PD Dr. Reinhard Rachel University of Regensburg, Lehrstuhl für Mikrobiologie and the Archaea Centre	Life under Extreme Conditions
15:00	Dr. Corinna Panitz RWTH Aachen, Institute of Aerospace Medicine	Interplanetary Transfer of Life
16:00		Coffee Break
16:30	Dr. Elke Rabbow DLR, Institute of Aerospace Medicine	Astrobiological Space and Laboratory Experiments
17:30	Dr. Ralf Möller DLR, Institute of Aerospace Medicine	Looking for Life, Searching the Solar System
18:30	Kristina Beblo DLR, Institute of Aerospace Medicine	Desiccation and Radiation Resistance in Thermophilic and Hyperthermophilic Bacteria and Archaea
19:00		Dinner
20:00		SpaceLife Question & Answer Session – <i>for SpaceLife Doctoral Students</i>

Astrobiology

Tuesday, August 25, 2009

08:00		Breakfast
09:00	Prof. Dr. Rupert Gerzer DLR, Institute of Aerospace Medicine	History of Space Medicine, Atmosphere
10:00	Prof. Dr. Rupert Gerzer DLR, Institute of Aerospace Medicine	Space Transport Systems, Space Station
11:00		Coffee Break
11:30	PD Dr. Jochen Zange DLR, Institute of Aerospace Medicine	Human Physiology in Space I: Adaptation of Blood Circulation, Coordination and Vestibular Organ
12:30		Lunch
13:45	Prof. Jörn Rittweger Manchester Metropolitan University	Human Physiology in Space II: Adaptation of Bone and Muscles, Countermeasure Development
14:45	Dr. Volker Damann ESA, European Astronaut Center	The Human Factor – from a Space-Medicine Perspective
15:45		Coffee Break
16:15	Prof. Fengyuan Zhuang BeiHang University, Beijing, China	Harness Gravity, and Keep Health
16:45	Prof. Dr. Rupert Gerzer DLR, Institute of Aerospace Medicine	Future Plans for Human Spaceflight
17:15	Prof. Dr. Hanns-Christian Gunga Charité, Center for Space Medicine	Thermoregulation and Erythropoiesis in Space
18:15	Prof. Dr. Bernd Heber CAU Kiel, Institute for Experimental and Applied Physics	Sources of Energetic Particles in the Heliosphere (the Interplanetary Radiation Field)
19:00		Dinner

Wednesday, August 26, 2009

08:00		Breakfast
09:00	Prof. Dr. Bernd Heber CAU Kiel, Institute for Experimental and Applied Physics	Shielding and Source: Planetary Magnetospheres
10:00	Klaudia Herbst CAU Kiel, Institute for Experimental and Applied Physics	Shielding and Source: Particle Interaction with Material and Measurements (I): Simulation of Energetic Particles in Earth's Magnetic Field
10:30		Coffee Break
11:00	Prof. Dr. Bernd Heber CAU Kiel, Institute for Experimental and Applied Physics	Shielding and Source: Particle Interaction with Material and Measurements (II): Particle Interaction with Material (Energy Loss)
12:30		Lunch
13:45	Daniel Matthiae DLR, Institute of Aerospace Medicine	Shielding and Source: Particle Interaction with Material and Measurements (I): Monte-Carlo Program Planetocosmics (Atmospheric Interactions)
14:15	Dr. Günther Reitz, Dr. Thomas Berger DLR, Institute of Aerospace Medicine	Space Radiation - Quantities
14:45	Dr. Günther Reitz, Dr. Thomas Berger DLR, Institute of Aerospace Medicine	Space Radiation - Measurements in Low Earth Orbit (I)
15:15	Johannes Labrenz CAU Kiel, Institute for Experimental and Applied Physics	Space Radiation - Measurements in Low Earth Orbit (I): DOSTEL/Matroschka
15:45		Coffee Break
16:15	Dr. Günther Reitz, Dr. Thomas Berger DLR, Institute of Aerospace Medicine	Radiation Exposure during Space Missions
17:15	Dr. Christine Hellweg DLR, Institute of Aerospace Medicine	Biological Effects of Space Radiation
18:15	Dr. Klaus Scherer Ruhr University Bochum, Institute for Theoretical Physics, Germany	The Heliosphere / Astrophysical Conditions for Space Life
18:45	Dr. Andreas Kopp CAU Kiel, Institute for Experimental and Applied Physics	Interaction of Solar Wind and Magnetospheres
19:15		Barbecue

Thursday, August 27, 2009

08:00		Breakfast
09:00	Dr. Christa Baumstark-Khan DLR, Institute of Aerospace Medicine	Acute and Chronic Radiation Effects in Humans
10:00	Dr. Patrick Lau DLR, Institute of Aerospace Medicine	Molecular Bone Metabolism under Space Conditions
10:30		Coffee Break
11:00	PD Dr. Ruth Hemmersbach DLR, Institute of Aerospace Medicine	Methods in Gravitational Biology - on ground and in space
12:00	Dr. Krassimira Ivanova DLR, Institute of Aerospace Medicine	Gravity related signal transduction pathways
13:00		Lunch
14:15	PD Dr. Markus Braun University of Bonn	Gravity-sensors and graviorientation of plants
15:15	Nicole Greuel University of Bonn	Molecular analyses of gravitropism related signaling pathways in unicellular and multicellular plant model systems
16:15		Coffee Break
16:45	Prof Dr. Ralf Anken DLR, Institute of Aerospace Medicine	Animal gravity sensors: Evolutionary trends
17:45	PD Dr. Markus Braun University of Bonn	DLR- National Space Agency
18:45		Tram line 66 from Bad Honnef to Köngswinter
19:30		Guided Tour and Dinner at SeaLife Köngiswinter
22:00		Tram line 66 from Köngswinter to Bad Honnef

Friday, August 28, 2009

08:00

Excursions

09:00 Bus Transfer

Breakfast

10:00 German Aerospace Center (DLR)
Cologne

Material Physics in Space
Institute of Aerospace Medicine
Wind Channel
Solar Energy
Astronaut Training Center EAC (ESA)

12:30 DLR Casino

Lunch

14:00 Bus Transfer

14:30 German Sports University (DSHS)
Cologne

Institute for Biochemistry,
Institute for Biomechanics
Department for Cellular and Molecular
Sports Medicine
Institute for Training Science and Sports
Informatics

17:00 Bus Transfer

17:30 Departure

DLR

DSHS

Location of the Summer School

Physikzentrum Bad Honnef (PBH)
Hauptstr. 5
D-53604 Bad Honnef
Germany
Phone: ++49 (0)2224 90 10 113
www.pbh.de

Phones for Taxi in Bad Honnef and Rhöndorf:

(02224) 2222 or (02224) 2121

From train station Rhöndorf:

PBH is within walking distance (about 10 min, see City Map), or take a taxi (about € 5).



Directions

Public transport

From Cologne:

Direction Koblenz (right side of the Rhine River). Step off at Rhöndorf or Bad Honnef (duration 45 min). Walk to PBH (distance 2.5 km, see City Map) or take a taxi (about € 5).

From Frankfurt:

- Via Siegburg or Cologne to Rhöndorf (duration 2.5 hour)
- Alternatively via Koblenz to Rhöndorf (much cheaper! same duration)

From Bonn (main railway station):

- Taxi from the front of the railway station to PBH (distance 18 km, about € 25) or
- Tramway No. 66 destination Bad Honnef (duration 35 min). Step off at "Am Spitzenbach". Walk to PBH (400 m, see City Map)

From Airport:

From Airport Köln-Bonn:

- Direct train connection to Rhöndorf every hour, duration 32 min or
- Taxi to the Physikzentrum (38 km, fare about € 40)

From Airport Frankfurt:

- Train via Siegburg or Cologne to Rhöndorf (duration 2.5 hour)
- Alternatively train via Koblenz to Rhöndorf (much cheaper! same duration)

By Car:

From the North:

- Motorway A3 to "Autobahn-Dreieck Heumar"
- Then motorway A59 direction "Bonn/Köln Airport" or "Bonn/Königswinter".
- A59 continues as B42 to Bad Honnef, exit "Rhöndorf".
- Follow the "Rhöndorfer Straße" to "Hauptstraße", after 2 km from the exit you will see PBH on the left side.
- Attention: radar speed control -max. 50 km/h - in Rhöndorf.

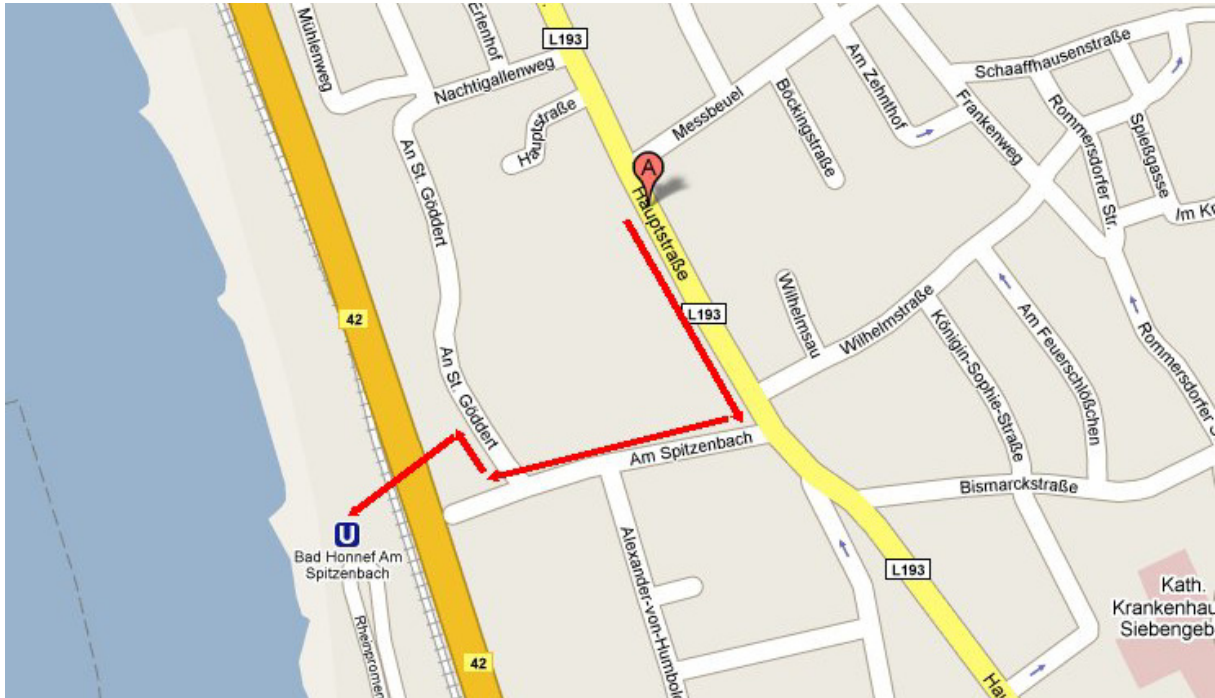
From the South:

- Motorway A3 Frankfurt-Köln exit "Bad Honnef/Linz".
- After approx. 4 km turn to the right at the first intersection with traffic lights and follow the valley down to Bad Honnef.
- Attention: radar speed control -max. 60 km/h- before entering Bad Honnef.
- Cross the city in northern direction (see City Map) and find PBH on the right side.







Directions



Public transport

Bad Honnef

Please take tramway No. 66

-  at station Bad Honnef - Am Spitzenbach
-  to disembark at station Königswinter Fähre – SEA LIFE Aquarium.

You find the building over the road.

By car

The A3 (departure Siebengebirge / Königswinter) and the B42 (departure Königswinter) head to SEA LIFE Königswinter. Please follow the parking guidance system.

Organizing Committee:

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