

DESY Summer Student Program 2012

Welcome Session
17th july 2012

Olaf Behnke, Doris Eckstein, Andrea Schrader, DESY

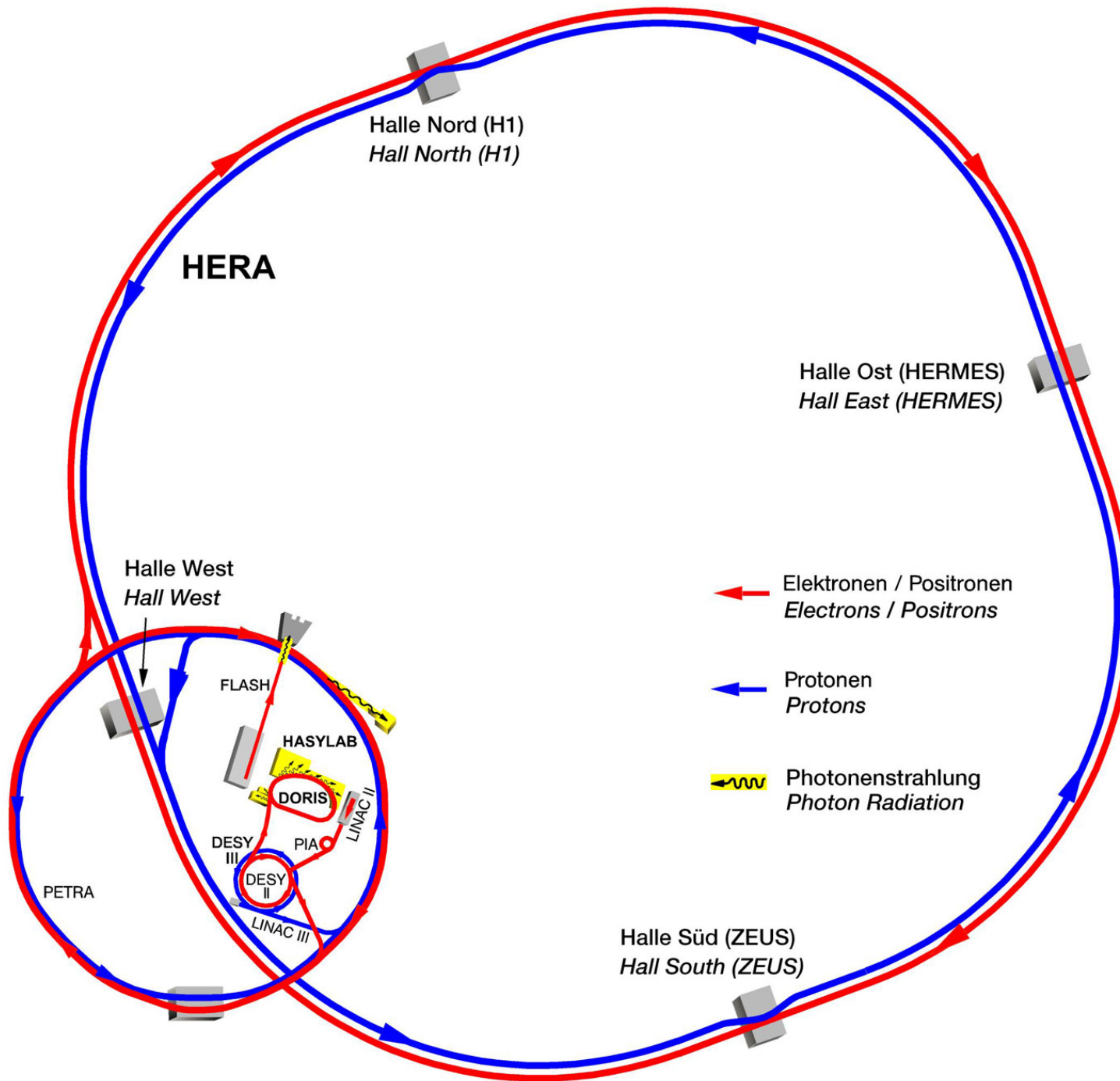
The ~100 Summer students come from

- Armenia, Austria, Belgium, Brazil,
- Canada, China, Colombia, France
- Germany, Greece, Hungary, India, Iran,
- Ireland, Israel, Italy, Mexico,
- Netherland, Pakistan, Poland
- Romania, Russia, Singapore, Slovakia, Spain, Sweden
- Thailand, Turkey, Ukraine, UK, USA

DESY site in Hamburg



We are HERE now



Your Research Projects at DESY :

ACTIVITIES

DESY Summer Students join groups engaged in the following activities:

Program A : Experiments with Synchrotron Radiation (only at Hamburg)

- > Students join groups at [HASYLAB](#) engaged in fundamental and applied research in the fields of physics, biology, chemistry, crystallography, material science, geological science, and medicine. A number of students will work in the frame of the [European XFEL project](#). The work includes participation in the preparation and realization of measurements, evaluation of the measured data, and technical improvement of the instrumentation.

Program B : Research in Elementary Particle Physics, accelerators and computing:

- > **Experiments in Elementary Particle Physics** Research is concentrated mainly on the experiments [H1](#), [HERMES](#) and [ZEUS](#) at the electron-proton-collider HERA, the experiments [ATLAS](#), [CMS](#) at the proton-proton-collider LHC and in preparations for [experiments at a e+ e- Linear Collider](#). At Zeuthen research is done also in the area of [Neutrino-Astrophysics](#). The activities can be characterized by the following categories :

B1 Physics analysis (software-oriented)

B2 Data processing (software-oriented)

B3 Development of experimental equipment (hardware-oriented)

- > **B4 Research on Accelerators**

Students join groups engaged in the development of accelerators. Activities include prototype projects for a [e+ e- linear collider](#) and research in the areas of superconducting magnets and cavities.

- > **B5. Theory of Elementary Particles**

Students acquire some elementary insight into topics from the [wide spectrum of research](#) of the Theory group. Depending on previous knowledge, activities may range from further reading, with discussions of theoretical concepts and research methods, to participation in simple research projects.

- > **B6. Computing**

Research is done in the area of Computing in High Energy Physics. At Zeuthen students participate also in tests and software development for [powerful parallel computers](#)

On the [Application Form](#) please mark for which program (**A** or **B**) you apply.

In case of **B** please indicate your preference (**B1** to **B6**). Since the number of available places are very different in the **B** subcategories your first choice may not be realized

DESY Summer Student Program 2012

Lectures for ALL summer students :

<https://indico.desy.de/conferenceOtherViews.py?view=cdsagenda&confId=5020>

Tuesday 17 July 2012

- | | | | | |
|-------|-----|---|---|---|
| 10:00 | SR4 | Welcome and Registration (1h30') | Olaf Behnke (DESY) , D. Eckstein (DESY) | ▼ |
| 11:30 | SR4 | Students meet supervisors (30') | | ▼ |
| 14:00 | SR4 | Safety Instructions (55') | Andreas Hoppe (DESY) | ▼ |
| 15:00 | SR4 | DESY Library introduction (30') | Kirsten Sachs (DESY) | ▼ |

Wednesday 18 July 2012

- | | | | | |
|-------|-----|--|--|---|
| 09:00 | SR4 | Introduction to Particle Physics (1h40') | Christian Sander (University of Hamburg) | ▼ |
| 11:00 | SR4 | Introduction to Research with Synchrotron Radiation (1h40') | Leif Glaser (HASYLAB) | ▼ |

Thursday 19 July 2012

- | | | | | |
|-------|-----------------|--|---------------------------|---|
| 09:00 | main Auditorium | Introduction to Accelerator Physics (1h40') | Pedro Castro (DESY) | ▼ |
| 11:00 | main Auditorium | Introduction to C++ (1h40') | Andreas Mussgiller (DESY) | ▼ |

Friday 20 July 2012

- | | | | | |
|-------|-----------------|-------------------------------------|---------------------------------------|---|
| 09:00 | main Auditorium | Introduction to FEL (1h40') | Rolf Treusch (HASYLAB at DESY) | ▼ |
| 11:00 | | Introduction to ROOT (1h40') | Gerhard Brandt (University of Oxford) | ▼ |

Voluntary

Please check regularly above webpages for possible programme updates

Lectures for HEP summer students :

<https://indico.desy.de/conferenceOtherViews.py?view=cdsagenda&confId=5020>

Monday 23 July 2012

09:00	SR 2	Theory of Elementary Particle Physics (1) (1h40')	Juergen Reuter (DESY) ▾
11:00	SR 2	Theory of Elementary Particle Physics (2) (1h40')	Juergen Reuter (DESY) ▾

Wednesday 25 July 2012

09:00	SR 2	Theory of Elementary Particle Physics (3) (1h40')	Juergen Reuter (DESY) ▾
11:00	SR 2	Theory of Elementary Particle Physics (4) (1h40')	Juergen Reuter (DESY) ▾

Friday 27 July 2012

09:00		Collider Physics (1) (1h40')	Thomas Schoerner-Sadenius (DESY) ▾
11:00	SR 2	Statistical Methods (1h40')	Christian Sander (University of Hamburg) ▾

Monday 30 July 2012

09:00	SR 2	Electroweak + Higgs Physics (1) (1h40')	Kerstin Tackmann (DESY) ▾
11:00	SR 2	Colliders Physics (2) (1h40')	Thomas Schoerner-Sadenius (DESY) ▾

Wednesday 01 August 2012

09:00	SR 2	Detectors (1) (1h40')	Daniel Pitzl (DESY) ▾
11:00	SR 2	Electroweak + Higgs Physics (2) (1h40')	Kerstin Tackmann (DESY) ▾

Friday 03 August 2012

09:00	SR 2	Detectors (2) (1h40')	Daniel Pitzl (DESY) ▾
11:00	SR 2	Simulating HEP Processes (1) (1h40')	Simon Plätzer (DESY Theory Group) ▾

Start 2nd week
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Lectures for HEP summer students :

Monday 06 August 2012 <https://indico.desy.de/conferenceOtherViews.py?view=cdsagenda&confId=5020>

09:00	SR 2	QCD (1) (1h40')	Roman Kogler (Uni HH)	▼
11:00	SR 2	Susy + Exotica (1) (1h40')	Altan Cakir (DESY)	▼

Wednesday 08 August 2012

09:00	SR 2	Simulating HEP Processes (2) (1h40')	Simon Plätzer (DESY Theory Group)	▼
11:00	SR 2	QCD (2) (1h40')	Roman Kogler (Uni HH)	▼

Thursday 09 August 2012

11:00	SR 2	Susy + Exotica (2) (1h40')	Altan Cakir (DESY)	▼
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Friday 10 August 2012

09:00	SR 2	Computing in HEP (1h40')	Steve Aplin (DESY)	▼
11:00	SR 2	Simulating HEP Processes (3) (1h40')	Simon Plätzer (DESY Theory Group)	▼

Monday 13 August 2012

09:30	Auditorium	Dark Matter (1h40')	Axel Lindner (DESY)	▼
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Wednesday 15 August 2012

09:30	Auditorium	Astroparticle Physics (1h40')		▼
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Friday 24 August 2012

09:30	Auditorium	Neutrino Physics (1h40')	Caren Hagner (Uni Hamburg)	▼
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For all students!

Lectures for photon physics summer students :

http://hasylab.desy.de/news__events/summer_students/lectures/program_2012_sr/index_eng.html

DESY Summer Student Lectures 'Exp. with SR' - Week 3

Time	Mon, July 30	Tue, July 31	Wed, Aug. 1	Thu, Aug. 2	Fri, Aug. 3
Location		Rm. 109 Bldg. 25 B		Rm. 109 Bldg. 25 B	
09:00 - 10:30		Synchrotron Radiation - Production and Properties <i>R. Gehrke</i>		Detectors for Synchrotron Radiation Experiments <i>D. Pennicard</i>	
11:00 - 12:30		Optics for Synchrotron Radiation Experiments <i>H. Schulte-Schrepping</i>		X-ray Diffraction <i>M. Tolkiehn</i>	

Start third week

DESY Summer Student Lectures 'Exp. with SR' - Week 4

Time	Mon, Aug. 6	Tue, Aug. 7	Wed, Aug. 8	Thu, Aug. 9	Fri, Aug. 10
Location	Rm. 109 Bldg. 25 B	Rm. 109 Bldg. 25 B		Rm. 109 Bldg. 25 B	
09:00 - 10:30		X-Ray Spectroscopy <i>W. Drube</i>		Inelastic Scattering <i>H. Yavas</i>	
11:00 - 12:30		X-ray Absorption Spectroscopy <i>E. Welter</i>		X-ray Fluorescence <i>M. Borchert</i>	
14:00 - 15:00	Preparation Meeting for the Exercise Week				

Lectures for photon physics summer students :

http://hasylab.desy.de/news__events/summer_students/lectures/program_2012_sr/index_eng.html

DESY Summer Student Lectures 'Exp. with SR' - Week 5

Time	Mon, Aug. 13	Tue, Aug. 14	Wed, Aug. 15	Thu, Aug. 16	Fri, Aug. 17
Location		Rm. 109 Bldg. 25B		Rm. 109 Bldg. 25B	
09:00 - 10:30		Small Angle X-ray Scattering <i>S. Roth</i>		Spectroscopy with VUV-Radiation <i>J. Viehhaus</i>	
11:00 - 12:30		Characterization of Surfaces <i>O. Seeck</i>		Biological Applications of Synchrotron Radiation <i>A. Meents</i>	

DESY Summer Student Lectures 'Exp. with SR' - Week 6

Time	Mon, Aug. 20	Tue, Aug. 21	Wed, Aug. 22	Thu, Aug. 23	Fri, Aug. 24
09:00	Exercise Week (whole day)	Exercise Week (whole day)	Exercise Week (whole day)	Exercise Week (whole day)	Exercise Week (whole day)

Special week

DESY Summer Student Lectures 'Exp. with SR' - Week 7

Time	Mon, Aug. 27	Tue, Aug. 28	Wed, Aug. 29	Thu, Aug. 30	Fri, Aug. 31
Location		Rm 109 Bldg. 25 B			
9:00 - 10:30		Tomography <i>F. Beckmann</i>			
14:00 - 16:00		Seminar Exercise Week			

Communication :

Communication is done via the web and email.

You gave an email address when you applied.

To make sure that we have your correct email address send me (obehnke@mail.desy.de) an email under which I can reach you during your stay at DESY

You are expected to check the web and your email daily !

INFORMATION on WEB :

Main page

<http://summerstudents.desy.de/hamburg/>

Message board: http://www.desy.de/f/students/summer_home_2012.html

• || Current Messages for **DESY - Hamburg**

Official announcements for the DESY summer students will be made here. Please read and react.

- **Tuesday 17/7 10:00-11:30, SR4**
[Opening Session and Registration](#). Since also the registration takes place at this occasion please bring all the necessary documents with you.
- **Tuesday 17/7 11:30, SR4**
Students: meet your project supervisors
- **Tuesday 17/7 14:00, SR4**
Safety instructions (a must)
- **Tuesday 17/7 15:00, SR4**
Introduction how to use DESY library (will be short)
- **Thursday 19/7 at 17:30 Bld 2a , Seminar room 2**
Start of german language course (voluntary, for interested persons).
- **Friday 20/7 at 18:30, DESY Canteen Extension :**
!!! Party !!! (Buffet Dinner)
- **Thursday 26/7 at 11:00, Head building Lab. 1, in front of PR :**
Guided tour around the DESY site

To be
scheduled:
taking photo

Link to students Facebook pages: [DESY summer students 2012](#)

The DESY Site :

HASYLAB R. Gehrke 25B 221
HASYLAB Lectures 25

© by DESY - MEA2

Welcome session, safety instructions,
First lectures 17-18th july SR4

A. Schrader 1e/01.518

HEP-Lectures SR2

Common Lectures Auditorium

O. Behnke 1a/01.132

D. Eckstein 1a/02.113

Canteen

Administration 7

Guest office 6



SAFETY at DESY :

DESY Safety Information for Visitors and Contractors

1. Safety Organisation

The Industrial Safety Regulations, Accident Prevention Measures, and Health Provisions at DESY conform to the German Statutory requirements and to those of the European Community. The DESY board of directors fulfils its obligations in this respect by appointing Safety Officers within the groups who are responsible for ensuring that the safety regulations and accident prevention measures are obeyed.

Similarly, with respect to radiation safety, the groups have their own nominated Radiation Safety Officers.

Advice on questions of safety (excluding radiation safety matters) can be obtained through the safety engineers, Andreas Hoppe (ext. 3585, building 35, room 14), Stefan Schrader (ext. 2085, room 13) or Yvonne Boro (ext. 2865, room 12) -D5-.

Mrs. Boro -D5- is responsible for hazardous materials and their disposal (ext. 2865, building 35, room 14).

In addition to the group -D5- questions concerning safety in the halls may be directed to the group -MEA- where Mr. Körfer (ext. 3714, building 1d, room 11), is the contact person.

Radiation protection questions should be directed to the group -D3- in the persons of Mr. Tesch (ext. 4915 building 1c, room 278) or Mr. Leuschner (ext. 3690, building 1c, room 279).

Industrial medical advice and assistance may be obtained from Dr. Bünz (ext. 2171, building 1a, room 107).

DESY-Emergency Call: Tel. 2500



All accidents, fires, or other emergency situations should be reported via this telephone number. In the event of language difficulties the number of the telephone extension from which you are calling indicates where you are. The emergency call number alerts the DESY Technical Emergency Service which then arranges for all necessary assistance, e.g. Fire Service, Ambulance, etc. The Technical Emergency Service is available 24 hours a day, seven days a week. For more general information, and to report technical problems please use the telephone extension number 5555 or from outside DESY call ext. 8998-5555.

2. Safety Instructions

Except in the accompaniment of an experienced person, nobody is allowed to undertake any work or enter any experimental area at DESY without having first received instructions from the local Safety Officer on special dangers which might be expected, warning or alarm signals which could occur, rescue facilities which are available, and how one should react under emergency circumstances. The issue of a DACHS-access card allowing independent access to controlled areas is also conditional on a course of instructions on local safety requirements. Talk to your Safety Officer.

3. Companies and Firms

When engaging a firm or company to execute work on the DESY site the originator of the order is obliged to ensure that the local Safety Officer is informed of the work and that any employees of the company involved in the work receive adequate safety instructions.

4. Rules of the road

The general German road traffic regulations also apply on the DESY site. The maximum speed is 30 km/h (20 mph). Particular care must be taken due to the relatively large number of pedestrians on the roads. The transport of special loads over the site is also a hazard which can be regularly expected. One must drive particularly slowly in the vicinity of sharp curves, road works and building activities

5. Cranes and lifting tackle

According to German law, cranes and motorised lifting equipment may only be operated by authorised personnel. Appropriately trained and tested guests may receive limited authorisation to operate such equipment in agreement with -MEA- (ext. 3714) and the safety group -D5- (ext. 3585 / 2865).

6. Electrical equipment

Electrical equipment at DESY must conform to the VDE standards. The experimental and accelerator areas contain a wide range of electrical equipment and it is not always possible to erect an enclosure around each individual item. Such rooms are therefore declared as electrical service rooms where only authorised personnel are allowed. Before commencing work in such areas you must contact the responsible Safety Officer and ascertain what possible hazards exist.

Official Safety instructions today 14h00 in SR4, (it's an absolute must)

German Language Course :

Completely voluntary

Donnerstag, 19.07.2012

17:30 - 19:00 Uhr Einstufung in Kurs 1 und Kurs 2

Montag, 23.07. + 30.07.2012

17.30 -18:30 Uhr Kurs 1, 18:30 - 19:30 Uhr Kurs 2

Donnerstag, 26.07. + 02.08.2012

17:30 - 18:30 Uhr Kurs 1, 18:30 - 19:30 Uhr Kurs 2

Freitag, 10.08., 17.08., 24.08. + 31.08.2012

17:30 - 18:30 Uhr Kurs1, 18:30 -19:30 Uhr Kurs 2

Die Einstufung wird in Geb. 2a, Raum 2 stattfinden und der laufende Kurs in Geb. 1b, Raum 4b. Unterrichten wird Frau Heinrich.

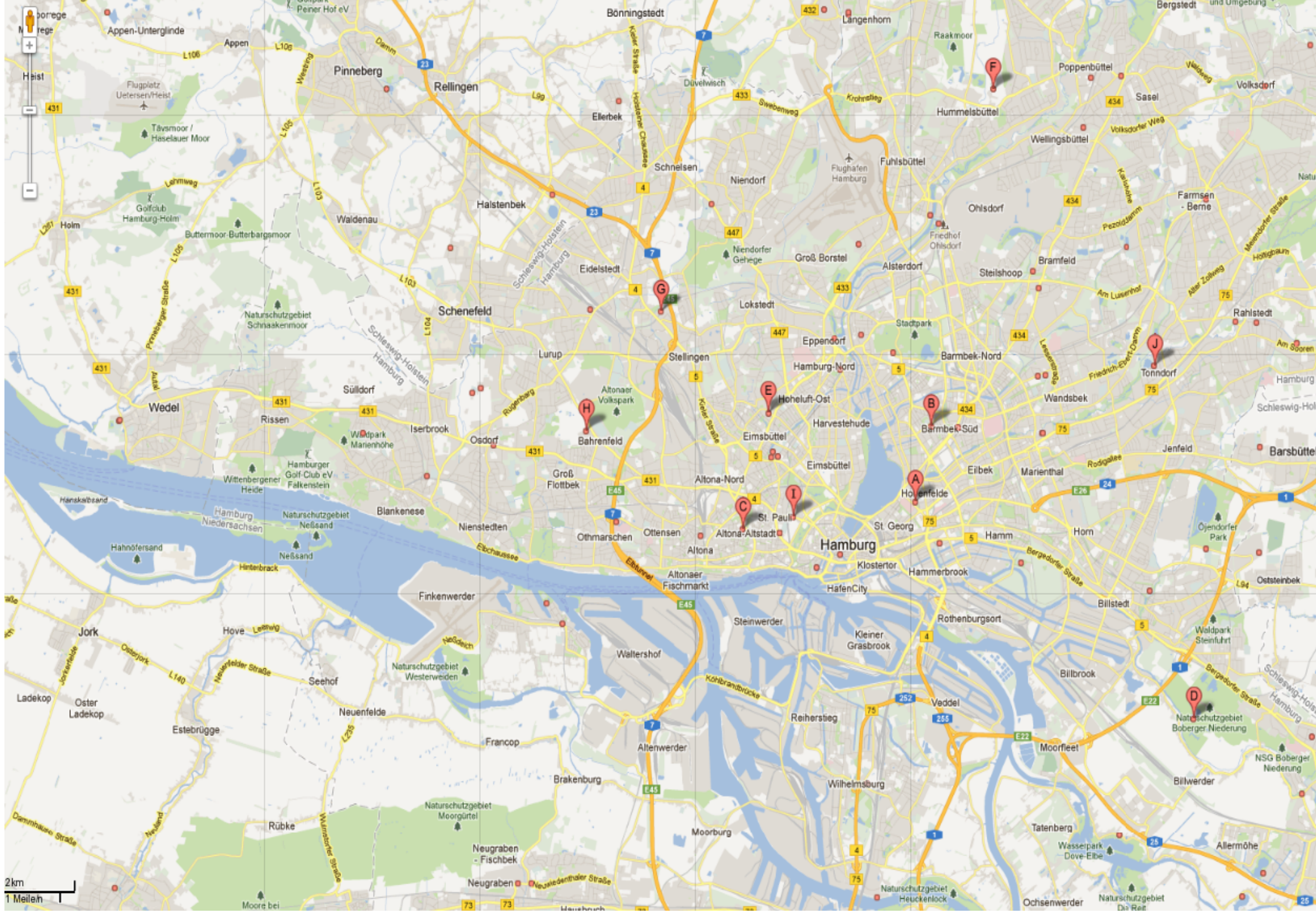
Some miscellaneous information:

- Sports: Volleyball field in front of Hostel
- Bikes: cannot be rented at DESY :-(
One possibility is to rent at <http://stadtrad.hamburg.de>
- Playing piano: possible at DESY
please ask me if you are interested

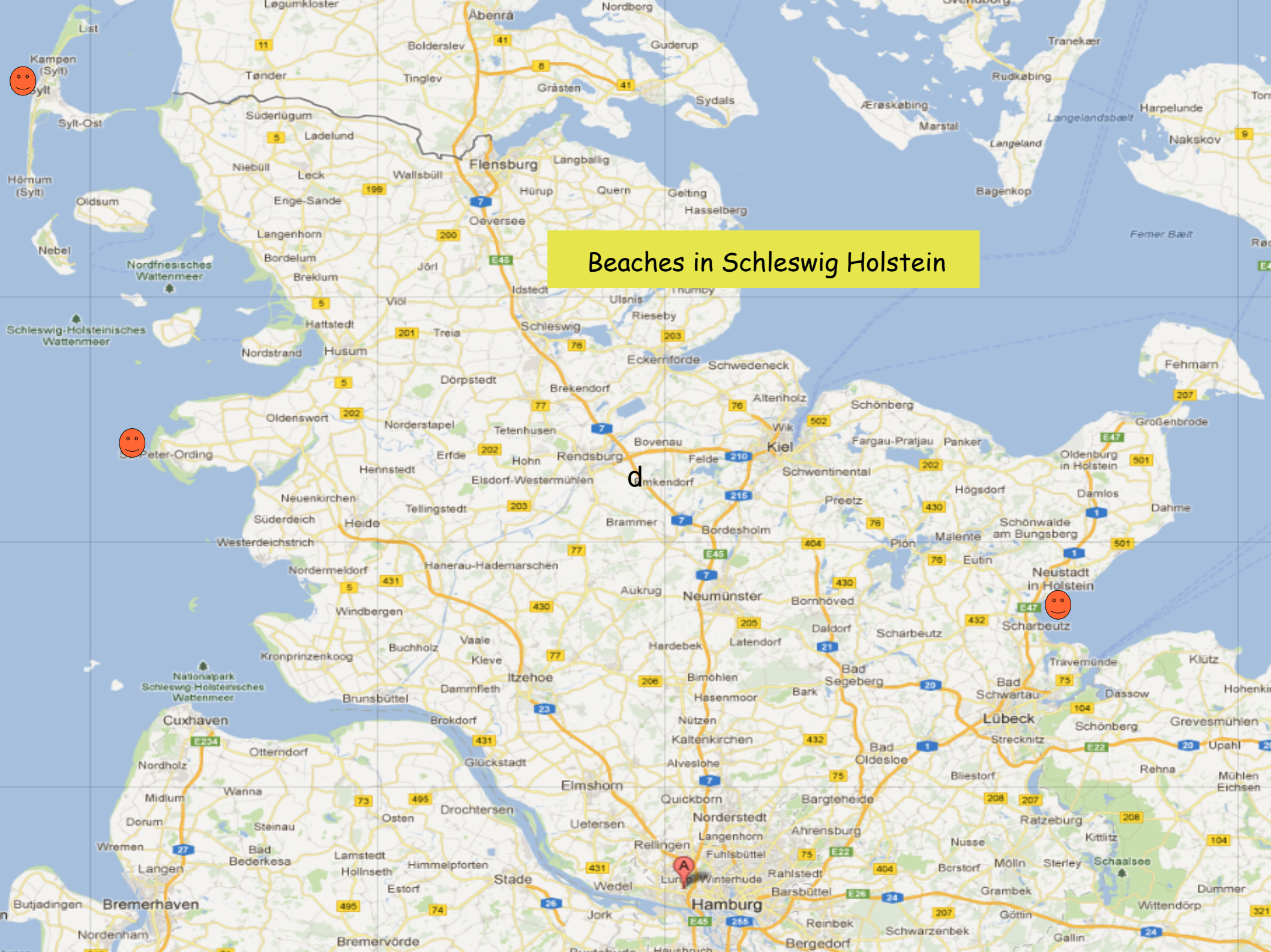
Will post on facebook page some leisure-time tips, e.g. one nice way to discover essential Hamburg: ride ferry boat line 62 (just use normal HVV tickets)



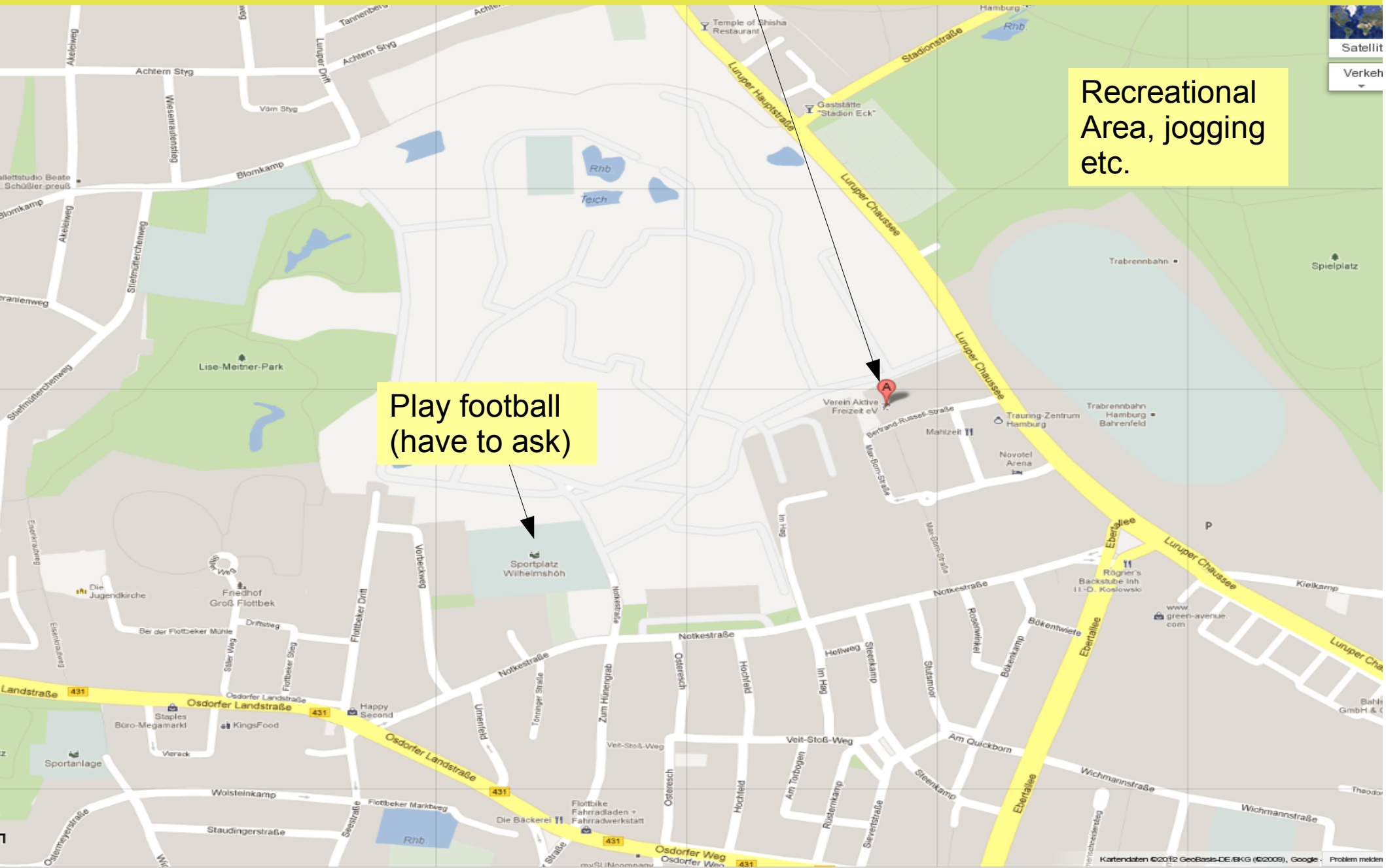
Swimming pools in Hamburg: google 'Hamburg Schwimmbad'



Beaches in Schleswig Holstein



One out of many possibilities for fitness: vafev.de



Play football
(have to ask)

Recreational
Area, jogging
etc.

For playing piano: visit office 110, bld. 6, fetch formular and fill it,
after approval you can fetch key at the DESY gate (gate keeper)

Public transport tickets

File Edit View History Bookmarks Tools Help

www.hvv.de/en/tickets/

No sweat - we'll run you there in comfort!

Mehr als ein Ziel **HVV**

- ▀ Abo-Karte all year travel pass
- ▀ Weekly-/ Monthly season tickets
- ▀ Single tickets
- ▀ Day tickets
- ▀ Service centres / Sales points

search term **Search**

Tickets

No matter how often or how far you intend to travel – we are sure to have the right ticket just for you. All tickets are on offer at fair prices for specific times and areas of validity. Below we have compiled certain key information for your attention. You will find further details on our tickets in the left-hand menu.

And keep in mind: Children under 6 years of age travel free-of-charge on HVV services!

Single Tickets (Einzelkarten)

Single tickets are valid for one trip and 1 person.

New: The Short-trip Ticket – make a short hop at a low price within our HVV Großbereich, the Greater Hamburg Area!

Day Tickets (Tageskarten)

Day Tickets are valid for unlimited travel on the date of issue.

Valid for travel by 1 adult and 3 children (6 to 14 years inclusive), the 9 am Day Ticket is valid after 0900, the All-day Ticket all day long. Also valid after 0900, the am Group Ticket may be used by up to 5 persons.

A 9 am Day Ticket can often make sense for just two trips on the day you select, the 9 am Group Ticket even when only two of you are travelling.

Buy Single and Day Tickets from any bus driver or ticket vending machine.

Public transport tickets

Price reduction (fill form available from Andrea)

Season Tickets (Zeitkarten)

General season tickets

If you intend to travel regularly on HVV services our bargain-price weekly and monthly season tickets are just right for you. Monthly season tickets can also be purchased on direct-debit subscription, ie you authorize us to book the monthly amount due direct from your bank account. Travel for 12 months and only pay for 10.

CC-Ticket off-peak travel passes

If you don't have to travel during peak periods we recommend a CC-Ticket off-peak travel pass. These are valid for 1 person + 3 children (6-14 years inclusive), Mon-Fri 0900-1600 and after 1800, all day long on Sat, Sun or public holidays.

Senior citizen season tickets (Seniorenkarten)

These tickets are valid for 1 person aged 63 years or over, Mon-Fri after 0900 and all day long on Sat, Sun or public holidays.

Reduced-price concessionary season tickets:

Concessionary season tickets are available for children, trainees / apprentices and students.

Season tickets including 1st class

With a season ticket including 1st class you may travel 1st class on regional rail and on SchnellBus limited stop services within the HVV service area.

All HVV season tickets consist of a customer photocard and a corresponding coupon indicating the period of validity. You can obtain the voucher at any HVV service centre where we'll be glad to advise you personally.

Sozialkarte (Welfare Ticket):

Hamburg citizens with a Sozialkarte (Welfare Pass) are entitled to a price concession of 18 Euros respectively per month and person paid by the Free and Hanseatic City of Hamburg on HVV monthly season tickets, the Abo-Karte (all-year travel pass) and ProfiCard (Job Ticket). Information on the Sozialkarte is available on the web pages of hamburg.de (new window).

TIP: When planning a trip enter the mask for our HVV Timetable Information service and let the assistant guide you to your personal timetable.

Related link

→ [Personal timetable](#)

About us German Sitemap Data Privacy and Protection Publication Data Extranet

NEXT STEPS :

- Registration (NOW And HERE in the foyer of SR4)
 - International Office (Steffi Killough et al)
 - Administration (Regina Hoppmann et al)
Please take note: Today you get first payment
 - Travel cost (Regina Ebeling)
 - General (Andrea Schrader)
- ~11h30: Meet your Supervisor, chat, have lunch
- 14h00 Safety instructions here
- 14h30 Intro to DESY library
- Lectures start Tomorrow 9:00 in SR4, from thursday on in Auditorium

HASYLAB Summer Students meet today
15:45 (tbc) , Room 109, Building 25B.