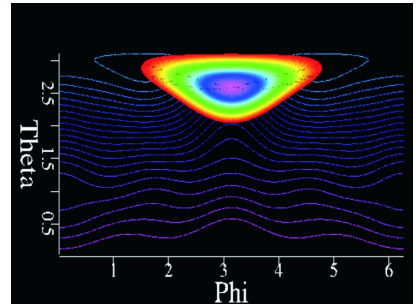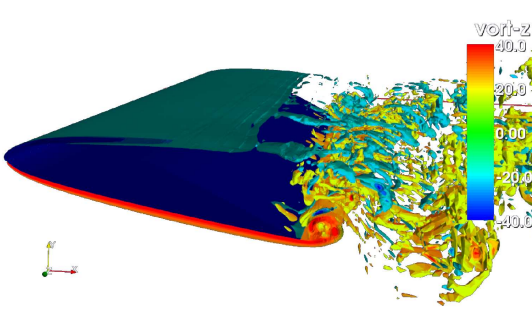**M**odern
Computational
Science

International Summer School

MODERN COMPUTATIONAL SCIENCE 10

General Information

August 9-20, 2010
University of Oldenburg, Germany

Welcome

to Oldenburg! This booklet provides you with some basic information about the Summer School, the planned trips and the city of Oldenburg. If you have any further questions, please feel free to contact the conference staff or the conference office in room W02 3-347.

Enjoy your stay,

Reinhard Leidl,

Alexander Hartmann.

Arrival

Please arrange your travel plans to arrive at the hotel on

<p align="center">Sunday, August 8, 2010, until 6 p.m.</p>

If you can't make it until then, please let us know about your late arrival. It may take (depending on connections) up to one hour and a half to get from Bremen Airport to Oldenburg Central Station. From there, both hotels (**"Hermes Hotel"**, where most of you will stay, and **"Hotel Sprenz"**) are within walking distance.

You will be informed by E-Mail which hotel you will be staying in (except, of course, if you have chosen the "reduced fee" registration option and will take care of accommodation yourself, or are a local student).

At the hotels, a **registration desk** for the Summer School will be open from 6 p.m. to 7 p.m. It is strongly recommended that you check in on Sunday evening. You will also obtain a ticket which allows you to use public transport (busses) within Oldenburg (valid from August 8, 2010, through August 20, 2010).

In case you arrive late (or are not staying in one of the above hotels) you can also register on the next morning between 8:00 a.m. and 8:45 a.m. The registration desk will be in front of the lecture hall and will be indicated by pointers.

Note that both hotels are close to the City of Oldenburg. You will thus have plenty of opportunities to eat out on Sunday evening.

The Summer School will start on

<p align="center">Monday, August 9, 2010, 9 a.m.,</p>

with some opening remarks.

Departure

You should check out from the hotel on

Friday, August 20, 2010,

until noon. You can store your luggage there and pick it up after the end of the Summer School. The lectures will end at 12:15 p.m. If you need additional nights, you have to make your own arrangements with the hotel.

Lodging

Participants (who do not take care of accommodation themselves) will stay in two hotels:

Hermes Hotel
Ankerstr. 19
26122 Oldenburg
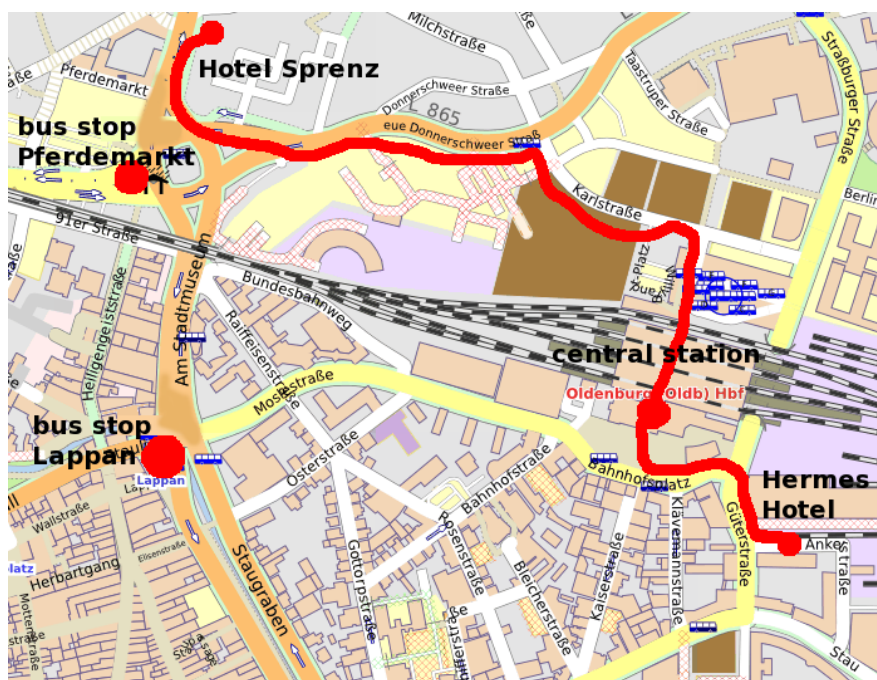Phone +49 (0)441 - 77939 0

Hotel Sprenz
Heiligengeiststraße 15
26121 Oldenburg
Phone +49 (0)441 - 800888 0

Both hotels are within walking distance from the Central Train Station (Oldenburg Hbf), see the map on the following page. Alternatively, to get to "Hotel Sprenz", you can go to the Central Bus Terminal ("ZOB") and take one of the following lines: 301 to "Ofenerfeld", 302 to "BBS Wechloy", 303 to "Heidkamp", or 324 to "Infanterieweg". The bus ticket is 2,10 €. Exit at "Pferdemarkt" (two stops from ZOB).

Check-In

You have two options of checking in for the Summer School:

1. On **Sunday evening** (August 8, 2010) from 6 p.m. to 7 p.m. a registration desk will be open at both hotels. It is strongly recommended that you check-in then.

2. If you are not staying in one of the above hotels (e.g., since you have chosen the "reduced fee" registration option and take care of accommodation yourself), you may check-in on **Monday morning** (August 9, 2010) from 8:00 p.m. to 8:45 p.m. The registration desk will be in front of the lecture hall. Just proceed to Wechloy Campus as described below.

On check-in, you will obtain a badge with your name on it, and several other material including:

- The Volume of Lecture Notes.

- A copy of the book A Practical Guide to Computer Simulations by A.K. Hartmann (World Scientific, 2009).

- A ticket allowing you to ride the public transport (busses) in Oldenburg (valid from August 08, 2010, through August 20, 2010).

- Your computer account and password.

- A mug, writing block and pen, and a backpack.

- This booklet, containing practical information on dining facilities, floor plans, tourist information, etc.).

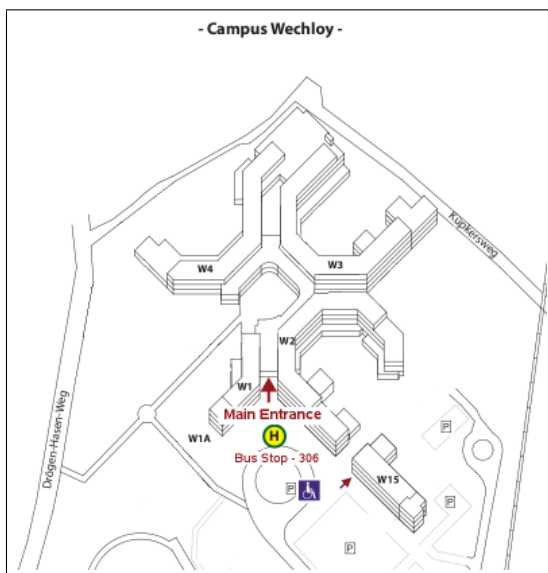- Tourist information about the city of Bremen.
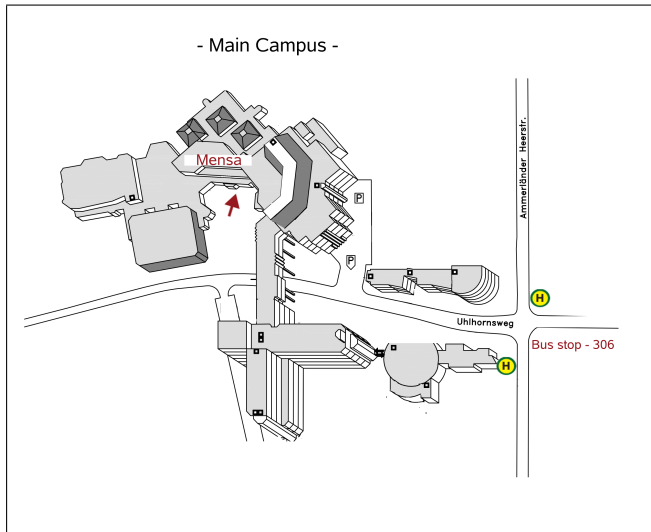
Summer School

How to get to the Wechloy Campus

From "Hermes Hotel": Walk to the Central Bus Terminal (ZOB), see the map above, and get onto the bus No. 306 to "Universität, C.v.Ossietzky Str". The Wechloy Campus is the terminal stop, and the trip takes about 11 minutes. The bus stops in front of the main entrance.

From "Hotel Sprenz" you have several options:

- Walk to the bus stop "Pferdemarkt", see the map above, and take one of the bus lines 301, 302, 303, and 324, to the Central Bus Terminal (ZOB). Exit there, and get onto the bus No. 306 (see above).

- You can also walk to the Central Bus Terminal from the hotel (about 5 to 10 minutes).

- Walk to the bus stop "Lappan" (about 300 meters from the hotel) and get onto the bus No. 306 there.

Campus Maps

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- Main Campus -

Food

Lunch:

The cafeteria ("Mensa") at the Wechloy Campus offers two different meals every day with at least one of them vegetarian. The price varies between 2 € and 3,50 €.
Alternatively, you can visit the Dining Hall ("Mensa") at the Main Campus. It takes less than 10 minutes to walk there, but you can also take the bus 306. The Dining Hall offers a bigger selection of food with approximately the same price as in Wechloy.

Dinner:

Dinner takes place in the Mensa at the Wechloy campus from 5:45 p.m. to 7:15 p.m. every weekday and is free for all participants of the Summer School.

Conference Schedule

The lectures take place in the room W03 1-156 on the first level of the Wechloy campus (see map on page 7). Please note that the schedule is subject to changes, so you may want to check the conference website `www.mcs.uni-oldenburg.de`.
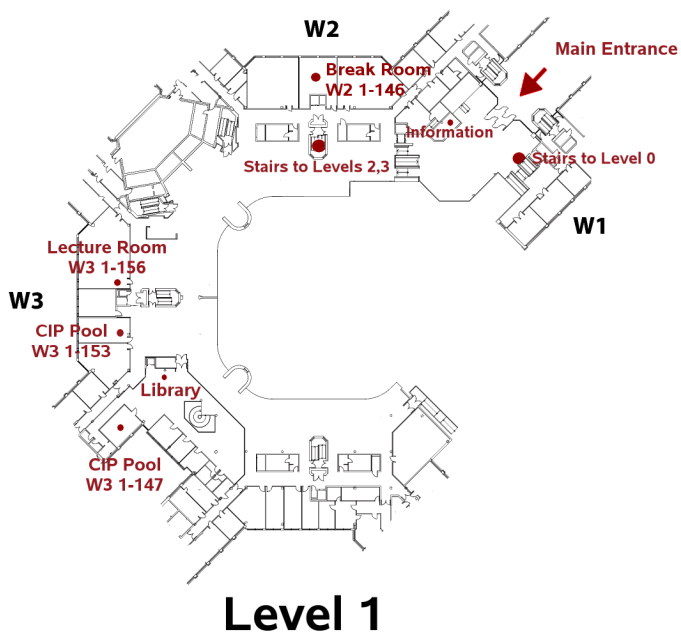
Week 1 (August 9 – August 13)

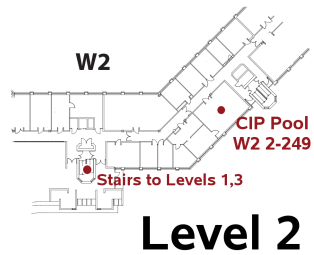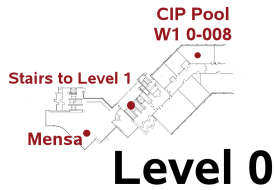|	**Mo**	**Tu**	**We**	**Th**	**Fr**
09:15-10:30	Algorithms and Data Structures	Random Numbers	Monte Carlo Simulations	Exploratory Data Analysis	Foundations of Quantum Chemistry
10:30-11:00	*Coffee Break*				
11:00-12:15	Software Engineering	Heuristic Optimisation	Exploratory Data Analysis	Semiparametric Regression	Surface Photochemistry
12:15-14:15	*Lunch Break*				
14:15-15:30	Algorithms and Data Structures	Monte Carlo Simulations	*Excursion to Jever (starting at 2 p.m.)*	Hydro- and Sediment Dynamics	*Lab Ex.* Quantum Chemistry
15:30-16:00	*Coffee Break*			*Coffee Break*	
16:00-17:15	*Lab Ex.* Programming	*Lab Ex.* Programming		Hydro- and Sediment Dynamics	*Lab Ex.* Quantum Chemistry

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Week 2 (August 16 – August 20)

	Mo	**Tu**	**We**	**Th**	**Fr**
09:15-10:30	Phylogenetic Analysis	Nonlinear PDEs	Paradox of plankton	Unified theory of biodiversity	Computational Fluid Dynamics
10:30-11:00	Coffee Break				Computational Fluid Dynamics
11:00-12:15	Homology and sequence alignment	Nonlinear PDEs	Intermediate Disturbances	Lab Ex. Stochastic Differential Equations	Computational Fluid Dynamics
12:15-14:15	Lunch Break				**End of Summer School**
14:15-15:30	Phylogenetic Inference by RAxML	Stochastic Differential Equations	Free (Beach Volley Ball etc.)	Computational Fluid Dynamics	**End of Summer School**
15:30-16:00	Coffee Break		Free (Beach Volley Ball etc.)	Coffee Br.	**End of Summer School**
16:00-17:15	Lab Ex. Introduction to RAxML	tba	Free (Beach Volley Ball etc.)	Lab Ex. Computational Fluid Dynamics	**End of Summer School**

Campus Wechloy -Floor Plans

Level 1

CIP Pool
W1 0-008

Stairs to Level 1

Mensa

Level 0

W2

CIP Pool
W2 2-249

Stairs to Levels 1,3

Level 2

Conference office
W2 3-347

W2

Stairs to Level 1,2

Level 3

Excursions

A number of different trips have been planned for the participants of the Summer School. You can sign up for these trips during the lectures.

Jever – Wednesday, August 11

What?
We will visit a traditional German Brewery in the small town Jever close to Oldenburg. Further information about the brewery and the tour can be found at `www.jever.de`.

When? Where?
The excursion takes place on Wednesday, August 11. The bus leaves at 2:00 p.m. from the university in Wechloy and comes back to Oldenburg on time to join the barbecue at the Wechloy Campus.

Barbecue at the Campus Wechloy– Wednesday, August 11

What?
After the Excursion to Jever we will have a Barbecue at the Wechloy Campus. We will offer delicious salads, sausages, meat and also vegetarian sausages, beer, ...

When? Where?
19:00, Wechloy Campus.

Bremen – Saturday, August 14

What?
We will visit the free hanseatic city of Bremen starting with a city tour in the morning. In the afternoon you can explore the town by yourself or come along to the "Überseemuseum", a museum for ethnology and natural history.

When? Where?
The trip takes place on Saturday, August 14. We meet at 10:30 a.m. at the main central station in Oldenburg in the main hall (in front of the Book Store) to take the train to Bremen at 10:55 a.m. The city tour in Bremen takes place from 12 a.m. to 2 p.m. The train back to Oldenburg leaves at 6:15 p.m. from the central station in Bremen. But you can feel free to take a later train by yourself (7:15 p.m., 8:15 p.m., 8:56 p.m., 9:15 p.m, 10:54 p.m., 11:15 p.m., 12:37 a.m.).

The train tickets for the trip to and from Bremen will be group tickets for five people so if you plan to take a different train on the way back you should make sure to find a group of people to go with!

Hints and Tips for Bremen
You can find out a lot about Bremen and where to go on the webpage: `www.bremen.de`. Some tips from us:

- **Bürgerpark:** A large public park close the main train station. You can take a walk, lie on the grass or rent a boat to go along a river.

- **Museums:** Bremen has lot of different museums. Choose one for yourself on `www.bremen.de` (english button in the upper right corner → culture and leisure → museums).

- **Viertel:** The "Viertel" is a cultural city centre close to main city and begins along the "Ostertorsteinweg". You can find a lot of nice bars and coffeehouses in this area.

- **Weserufer:** On a sunny day it is always a good idea to walk along the river Weser. You can walk on both sides of the river.

- **Restaurants and Coffeehouses:** Café Sand, a nice cafe directly at the river Weser (Schlachte 2). Piano, a nice cafe and a good restaurant in the

"Viertel" (Fehrfeld 64), Café Toelke: a cafe in the tradition of a Wiener coffeehouse (Schnoor 23a). Waldbühne, a beer garden at the north end of the "Bürgerpark".

Norderney – Sunday, August 15

What?
Norderney is one of the East Frisian islands in the North Sea of Germany. You are invited to visit and explore this island on a hopefully sunny day.

When? Where?
The trip takes place on Sunday, August 15. We will meet at 9:20 a.m. at the main central station Oldenburg and will travel by train and ferry to the island. We are going to take the last ferry back to land at 7:15 p.m. and arrive at 10:23 p.m. in Oldenburg.

Leisure time

Getting around

- **Bus:** You find a complete schedule in Oldenburg in your bag. Alternatively you can visit `www.vwg.de.` From the university take bus no 306. From "Hermes Hotel" and "Hotel Sprenz" you can easily walk into the city.

- **Bike:** You can rent a bike at the university (`www.asta-oldenburg.de/fahrradselbsthilfe/`).

  Opening hours: Tuesday and Thursday 2 - 6 p.m.,
  Wednesday 10 a.m. - 2 p.m.

  Prices: 1.00 to 2.50 € per day, 5 € per week.

- **Train:** Trains to Bremen and other places leave from the central station. Schedules can be found at `www.reiseauskunft.bahn.de`.

Supermarkets

- From "Hermes Hotel" you can take a 10-15 minute walk into the city where you find a *Plus* market in Wallstraße. (See also the map on the last page, No 14.)

- From "Hotel Sprenz" you can walk along Nadorster Straße where you find a *Plus* market after about 400 metres.

Restaurants

- **Ali Baba:** Turkish Restaurant close to the university (Ammerländer Heerstr. 120).

- **Chianti Classico:** Italian Restaurant in the city (Achternstr. 40).

- **Franziskaner:** Bavarian restaurant (Am Waffenplatz 1).

Bars

- **Patio:** Cocktail bar close to the train station (Bahnhofstr. 11).

- **Polyester:** Cozy bar close to the city in a sixties living room style (Am Stadtmuseum 15).

- **Fiddlers Green:** Irish Pub in the city (Wallstr. 19).

- **Charlys:** Rock bar in the city (Wallstr. 26).

- **Marvins:** Alternative Pub close to the train station with a small but comfortable beer garden (Rosenstr. 6).

- **Schwan:** Bar/Restaurant directly at the harbor. Good place to sit outside and enjoy the sun (Stau 34).

Some other things to do

- **Staatstheater Oldenburg:** State theater of Oldenburg (www.staatstheater.de).

- **Horst-Janssen Museum:** Art museum of a famous artist from Oldenburg (www.horst-janssen-museum.de).

- **Theater Laboratorium:** Theater with some interesting ideas (www.theater-laboratorium.de).

- **Casablanca:** Cinema (www.casablanca-oldenburg.de).

- **Landesmuseum:** Museum for art and cultural history (www.landesmuseum-oldenburg.niedersachsen.de).

- **Schlossgarten:** Beautiful park close to the city. Nice Place to take a walk or lie in the sun.

(1) Chianti Classico	(8) Schwan
(2) Franziskaner	(9) Staatstheater Oldenburg
(3) Patio	(10) Horst-Janssen Museum
(4) Polyester	(11) Theater Laboratorium
(5) Fiddlers Green	(12) Landesmuseum
(6) Charlys	(13) Schlossgarten
(7) Marvins	(14) Plus Supermarket