

# Mini-Workshop on Positron Physics and Positron Experiments

## 1<sup>st</sup> User-Meeting at NEPOMUC

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Thursday, 1<sup>st</sup> of September 2005

Technische Universität München  
ZWE FRM-II

### Organisation:

Dr. Christoph Hugenschmidt  
Technische Universität München  
ZWE FRM-II  
Lichtenbergstraße 1  
85747 Garching  
Germany  
Tel.: +49 (0)89 2891 4609  
Fax.: +49 (0)89 2891 4997  
email: [Christoph.Hugenschmidt@frm2.tum.de](mailto:Christoph.Hugenschmidt@frm2.tum.de)

Sylvia Jones  
Tel.: +49 (0)89 2891 4712  
Fax.: +49 (0)89 2891 4713  
email: [Sylvia.Jones@frm2.tum.de](mailto:Sylvia.Jones@frm2.tum.de)

Waltraud Wittowetz  
Tel.: +49 (0)89 2891 4965  
Fax.: +49 (0)89 2891 4995  
email: [Waltraud.Wittowetz@frm2.tum.de](mailto:Waltraud.Wittowetz@frm2.tum.de)

*Dear friends of positron physics,*

*after several years of planning, construction and building we finally have available a mono-energetic positron beam of high intensity of about  $10^8$  moderated positrons per second at the research reactor FRM-II. In 2004 first positron measurements were accomplished at NEPOMUC. During the last reactor cycle we succeeded to perform first positron experiments together with external users of the first official proposal round.*

*The intention of the workshop is to bring together positron physicists and potential users of the positron beam facility NEPOMUC. Therefore, a very broad spectrum is presented in the talks of the scientific program. During this meeting different kind of physical topics of solid state, surface, atomic and nuclear physics will be discussed. We also will talk about experimental aspects and future experiments with a mono-energetic positron or positronium beam of high intensity.*

*Looking forward to welcome you in Munich.*

*Best regards,*

*Christoph Hugenschmidt*

## Technical information

**Important :** Please have your **passport or ID** (valid!) with you in order to get access to the reactor site.

### WEB:

*Please have a look at our websites for news:*

<http://www.frm2.tum.de>

<http://www1.physik.tu-muenchen.de/lehrstuehle/E21/Welcome.html.de>

### Date:

1<sup>st</sup> of September 2005, from 8:15 am to 6 pm.

### Location:

Campus of **TUM - Forschungsgelände** in Garching at “**GRS-Building**”  
Lichtenbergstraße, **seminar room 5203** (see maps)

### Registration:

For organisational reasons, please confirm your attendance.

### Hotel:

For hotel reservation and further information please contact Ms. Sylvia Jones. She made reservations in the Hotel ETAP in Garching-Hochbrück - [www.etap.com](http://www.etap.com).

### Program:

Thanks to the prompt reply of the speakers you find final program in the web.

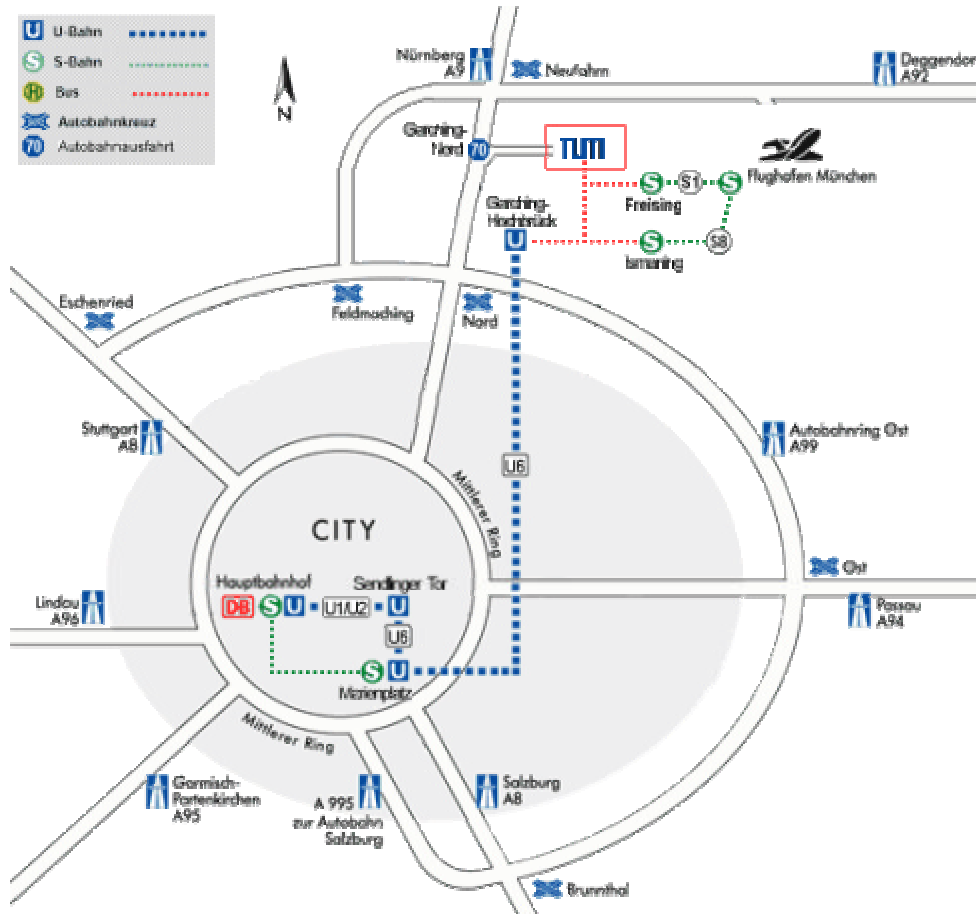
The time of the talks given in the morning session should include at least 5 min. for discussion: 20+5=25min. After lunch, the positron instruments at NEPOMUC will be presented during the visit of the reactor. Thereafter, external and future experiments are presented in 20 min. talks.

Overhead projector and a beamer with a notebook are available

### Proceedings:

We intend to hand out the presentations (as hard copy or file) to the attendees of the workshop. For this reason, the speakers are kindly requested to send a copy or a file of their talk to the organisers or to bring it to the workshop.

**Public transportation:**



**Starting at Garching-Hochbrück (Hotel):**

Take the bus (lines 291 or 691) direction Garching Technische Universität to stop Forschungsreaktor. Schedule see below.

**Starting at the center of Munich (Marienplatz):**

Take U-Bahn U6 direction Garching-Hochbrück to the end of the line (Garching-Hochbrück), then take the bus (lines 291 or 691) direction Garching Technische Universität to stop Forschungsreaktor.

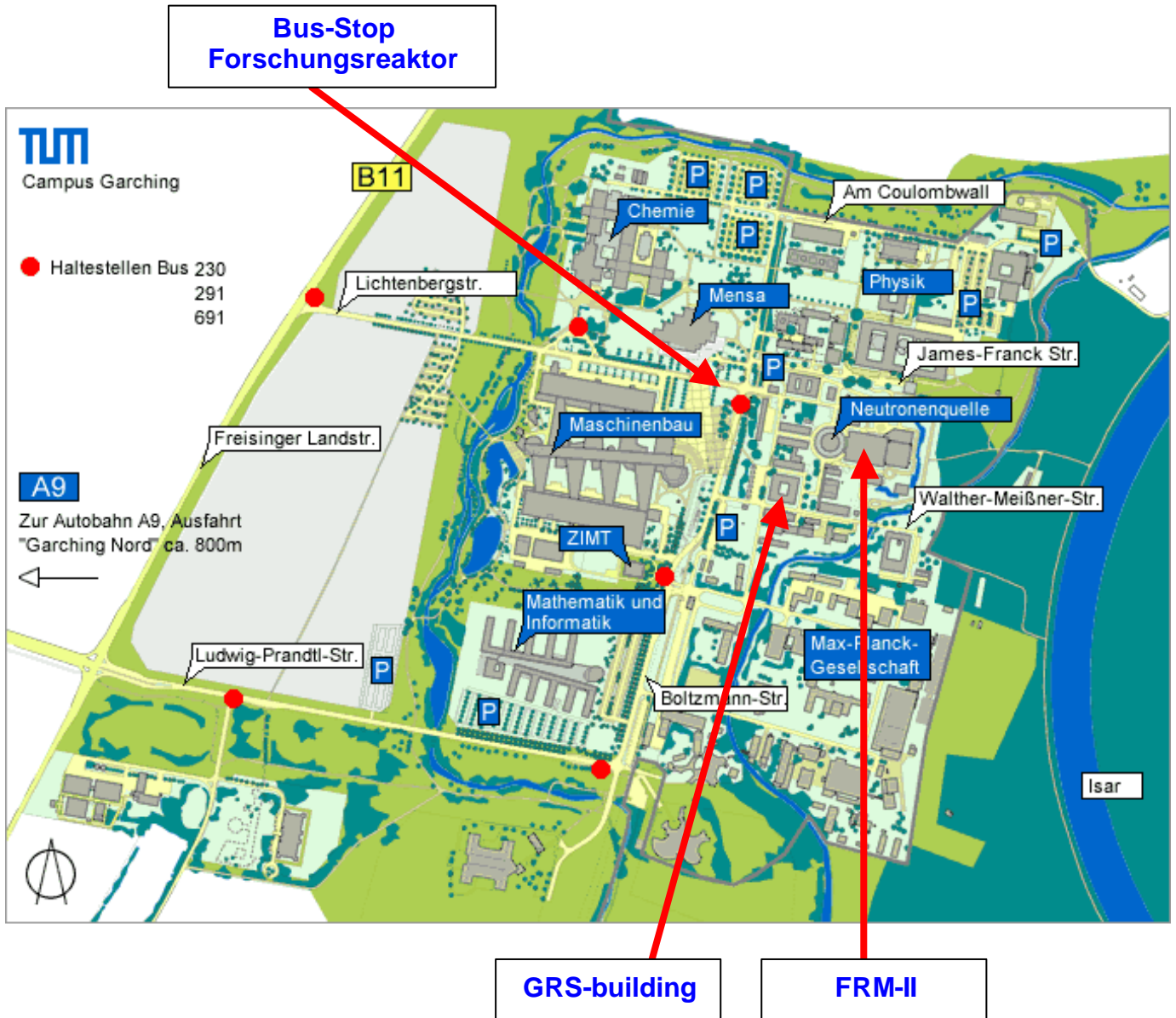
**Starting at the airport:**

Take S-Bahn S8 to stop Ismaning, then by bus (line 230) to stop Forschungsreaktor or by Taxi.

Alternative:


Take S-Bahn S1 to stop Neufahrn, then by bus (line 691) to stop Forschungsreaktor or by Taxi.

Campus Garching:



Bus timetable Garching-Hochbrück to Campus TU:

**BUS**  
**291**



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Abfahrtszeiten ab  
**Garching-Hochbrück**  
(Diese Haltestelle liegt in Zählrichtung 6 und 7)

Richtung  
**Garching, Techn.Universität**

Gültig von 12.12.2004 bis 14.12.2005      Neumayr GmbH 0693267411

Fahrzeit in ca. Minuten

Weg C

- Garching-Hochbrück
- 01 Garching, Daimlerstraße
- 03 Garching, Kellenweg
- 04 Garching, Maier-Leibnitz-Str.
- 05 Garching, Maibaum
- 06 Garching, Lehrer-Stieglitz-Str.
- 07 Garching, Römerhofweg
- 08 Garching, Ludwig-Prandl-Str.
- 10 Garching, Boltzmannstraße
- 11 Garching, Forschungsreaktor
- 12 Garching, Techn.Universität

Weg B

Uhr	Montag - Donnerstag	Freitag	Samstag	Uhr
5	42 <sup>C</sup>	42 <sup>C</sup>	--	5
6	12 <sup>C</sup> 32 52	12 <sup>C</sup> 32 52	--	6
7	14 34 54	14 34 54	07 <sup>C</sup> 47	7
8	14 34 54	14 34 54	22	8
9	14 24 44	14 24 44	02 42	9
10	04 24 42	04 24 42	22	10
11	02 22 42	02 22 42	02 42	11
12	02 24 44	02 24 44	22	12
13	04 24 44	02 14 34 54	02 42	13
14	04 24 44	14 34 54	22	14
15	04 24 54	14 34 54	02 42	15
16	14 34 54	14 34 54	22	16
17	14 34 54	14 34 54	02 42	17
18	14 34 44	14 24 44	22	18
19	04 24 44	02 22 42	02 42	19
20	02 22	02 22	--	20
21	02 42	02 42	--	21
22	22	22	--	22
23	02 <sup>C</sup>	02 <sup>C</sup>	--	23
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Sonn- und Feiertag kein Betrieb  
Am 24. und 31. Dezember Betrieb wie Samstag  
Fahrten ohne Fahrwegangabe nehmen Weg B C = Fahrt Weg C

Änderungen vorbehalten



Bus timetable Campus TU to Garching-Hochbrück:

**BUS**  
**291**



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Abfahrtszeiten ab  
**Garching, Forschungsreaktor**  
(Diese Haltestelle liegt an Zeltbanktag 7 und 8.)

Richtung  
**Garching-Hochbrück**

Fahrzeit in Minuten

- Garching, Techn.Universität
- Garching, Forschungsreaktor
- 01 Garching, Boltzmannstraße
- 03 Garching, Ludwig-Prandtl-Str.
- 05 Garching, Lehrer-Stieglitz-Str.
- 06 Garching, Malbaum
- 07 Garching, Maler-Leibnitz-Str.
- 08 Garching, Kellenweg
- 09 Garching, Dalmierstraße
- 11 Garching-Hochbrück

Gültig von 12.12.2004 bis 10.12.2005

Wagner GmbH 4690307410

Uhr	Montag - Donnerstag	Freitag	Samstag	Uhr
6	51	51	--	6
7	11 31 51	11 31 51	--	7
8	11 31 51	11 31 51	09 49	8
9	11 29 49	11 29 49	29	9
10	09 29 49	09 29 49	09 49	10
11	09 29 49	09 29 49	29	11
12	11 31 51	11 31 51	09 49	12
13	11 31 51	01 21 41	29	13
14	11 31 51	01 21 41	09 49	14
15	11 31 51	01 11 31 51	29	15
16	11 41	11 31 51	09 49	16
17	01 21 31 51	11 31 51	29	17
18	11 31 48	09 29 49	09 49	18
19	09 29 49	09 29 49	29	19
20	09 29 49	09 29 49	09	20
21	29	29	--	21
22	09 49	09 49	--	22
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Sonn- und Feiertag kein Betrieb  
Am 24. und 31. Dezember Betrieb wie Samstag

Änderungen vorbehalten

## **Bavarian Brotzeit:**

Here is some information about the famous Bavarian food you get in the beergarden and after our workshop.

## **Leberkäs (Leberkaes)**

(literally 'liver cheese')

Contains no liver at all, the name originates from "Lab", which is an ancient word for sausage stuffing. The raw material looks like a creamy cheese before it is baked in the oven. Eaten hot, with a Brezn or a Semmel, if you like, hot or sweet mustard. And a beer, of course.

## **Brezn**

(pretzel)

Most people say that you get the best Brezn in the southern part of Germany. and they're right. The Brezn are smooth (unlike the "party"-pretzels...), and they taste fantastic just with butter – Butterbrezn.

## **Beers**

Are all brewed according to the German purity law, allowing only malt, hops and water. Bavarians are convinced they have the best beer in the world, with thousands of small breweries. The only competitor may be the Czech republic.

The minimum quantity is half a litre (Halbe), or one litre (Mass), except for Pils in small bars, which is usually served in 0.33 l bottles. You'll be surprised how fast a "Halbe" of Bavarian beer tends to evaporate...

## **Helles**

Comes close to Lager. If you order "Helles" or "eine Halbe", you'll get just that.

## **Dunkles**

Same in dark variation.

## **Weissbier**

Is not really white, but is made from wheat. Available as bright or dark (Helles Weissbier, dunkles Weissbier), both very good. It ripens in a bottle, with yeast added that makes it look hazy. The yeast is essential for the taste and has to be swished out of the bottle with the last drops. Be sure to let someone else pour it for you the first time, or it will foam like hell on you!



### **Radler**

Was invented by some landlord on a very hot day when lots of cyclists turned up, very thirsty, and his beer threatened to go out. Denotes a mixture of half beer (usually “Helles”, on request “Dunkles”), half lemonade. Allows you to drink larger quantities of liquid in the heat without getting too drunk immediately. Also popular among the ladies. Available as “Halbe” or “Mass”.

### **Russ'n**

Literally “Russian”, nobody knows why. Same as “Radler”, only with Weissbier instead, and better, in the opinion of many. Available also with dark Weissbier (“dunkler Russ”). If Weissbier is not on tap, only available as Mass, because Weissbier ripens in bottles of half a litre. Plus the other half lemonade, makes a Mass.