

## 2<sup>nd</sup> and Final Announcement

# 11<sup>th</sup> WORKSHOP ON RF-SUPERCONDUCTIVITY SRF 2003 8. – 12. September 2003



For any information please contact: Secretary's Office: [srf@srf2003.desy.de](mailto:srf@srf2003.desy.de) Tel.: ++49-40-8998-3339 FAX: ++49-40-8998-4302 internet: <http://srf2003.desy.de>

### LÜBECK/TRAVEMÜNDE      MARITIM - STRANDHOTEL

Superconducting Radio Frequency Accelerator systems: physics, technology and operation are covered by tutorials

Oral/Poster Contributions, Working Groups, Review Talks

The four-masted barque PASSAT was one of the famous Flying P-Liner and sailed Cape Horn not less than 39 times. Today the PASSAT is anchored as museum ship in Travemünde opposite of the MARITIM-Strandhotel.



#### Organizing Committee

C. Antone - SLAC  
S. Chiovini - ERM  
F. Kessel - Jefferson Lab  
G. Kniefer - Hippertal University  
S. Naguchi - KEK  
H. Padarise - Cornell University  
V. Palani - INFN di Legnaro  
D. Rauch - DESY  
D. Seifried - Los Alamos Nat. Lab.  
K. Stepanov - Argonne Nat. Lab.

#### Local Organizing Committee

A. Alkhalaf - DESY  
P. D. Ball - DESY  
A. Dammann - DESY  
C. A. Krebber - DESY  
D. Kotlyar - DESY  
G. Lepp - DESY  
S. Lindström - DESY  
L. Lilje - DESY  
M. Mariani - DESY  
A. Möhlner - DESY  
W. B. Müller - DESY  
C. Müller - DESY  
D. Rauch - DESY  
D. Reuschle - DESY  
P. Schmitzer - DESY  
J. Seixas - DESY  
S. Stenlund - DESY  
W. Vogel - DESY  
K. Tzupar - DESY

## Workshop Information

The International Workshop on Superconducting Radio Frequency (SRF) devices was founded in 1983 as a platform of communication for the application of superconductivity for particle acceleration. The workshop is held every two years at various laboratories around the world.

Superconducting radio frequency accelerating systems have grown into a mature technology, more than 1000 meters of SRF cavities have been installed worldwide. Superconducting cavities are under operation in electron storage rings as well as in linear accelerators for electrons, protons and heavy ions.

The most recent project under construction is the neutron spallation source in Oak Ridge, USA. There is vigorous interest in using superconducting accelerating systems in the upgrade of existing installations or in new powerful accelerators for fundamental physics research (such as heavy ions, high intensity electron beams in storage rings, neutrino factories) or applied physics (spallation neutron sources, ultraviolet and X-ray free electron lasers).

The most challenging future project is a 30 km long superconducting linear accelerator, proposed by the TESLA (Tev Energy Superconducting Linear Accelerator) collaboration for the next linear electron-positron collider. In the past decade the accelerating fields in SRF cavities have been raised from 5 MV/m to more than 25MV/m at quality factors above  $10^{10}$ . The SRF Workshop is intended to communicate the latest findings in the field of RF superconductivity, present new developments, stimulate controversial discussions, establish contacts to near-by research areas and, last but not least, to serve as an educational guide for newcomers.

The workshop is organized in form of review talks, invited talks, poster contributions and working groups. It will cover the following topics:

### **Review of RF superconductivity and superconducting materials**

- Basics of RF superconductivity
- Material properties of niobium
- Alternative superconductors for RF application
- Fundamental limits of RF superconductivity

### **Progress in performance of SRF cavities**

- Limitations by field emission, multipacting or thermal instabilities
- Improved preparation methods
- Comparison between theoretical and experimental limitations
- Diagnostic methods for SRF cavities

### **Technical issues**

- RF power input couplers
- Higher-order mode damping
- Lorentz force detuning
- Microphonics

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- Frequency tuning
- Fabrication techniques for niobium and niobium-coated copper resonators

### **Operational aspects**

- Energy recovery linacs
- RF control and cryogenic system for continuous-wave and pulsed operation
- Analysis of failure modes

### **Posters on laboratory activities**

### **Future developments**

- Proposals for new superconducting accelerators

## **Scientific Issues**

### **Program**

The program can be found in the attached e-mail file as well as on the SRF homepage <http://srf2003.desy.de>.

### **Changes of the program as compared to previous workshops**

- Laboratory reports will be presented as posters in order to have some more time for working groups and reviews. We will find a place to display these posters during the whole workshop so that you have enough time to inform yourself about the lab activities. Please do not forget to send your abstract in time.
- We have several tutorials late pm for new comers (and experts, too)
- We have several working groups, some might be in parallel. The exact schedule will be based on your voting for attendance at the beginning of the workshop.
- One minor technical change: we will not distribute conference bags (but paper and pencils) because most of you have many already, please bring yours with you. The money saving goes into support for students.

### **Call for Abstracts**

Abstract submission is open since July 4, 2003. It will be closed on August 1, 2003.

If you need to change your abstracts, please send an e-mail to [srf@srf2003.desy.de](mailto:srf@srf2003.desy.de) stating clearly the desired changes (e.g. further authors, correction of “mistakes” etc). You can only submit an abstract if you are a participant of the SRF workshop.

Abstracts will be published on the web as pdf file in the second half of August.

### **Call for Papers/Preparation of Papers**

Paper submission will start on August 18, 2003. Guidelines for the preparation of manuscripts and papers are under preparation and will be published on the SRF homepage

<http://srf2003.desy.de> soon.

### **Proceedings**

Contributions to the 11th SRF Workshop will be published on the Web and as CD. There will be no paper proceedings.

### **Poster Sessions**

The poster sessions will be held on Monday, Tuesday and Thursday from 14:30 to 17:30 h. Posters should be mounted half an hour before the start of the poster sessions. Drawing pins on pin-boards will be provided. At the end of each poster session the posters have to be dismantled (except posters with laboratory reports). The space that can be used for displaying information is 1.32 m high and 0.93 m wide. The posters will be grouped by topics. Authors will get the information when his/her poster is presented and at what position in the poster session room in the beginning of August.

## **Organisational Issues**

### **Opening hours**

Registration as well as the Paper Processing Office will be open from 8:30 – 12:30 and 14:00 to 18:30. On Sunday both offices will be opened at 16:00  
The Internet café will be open from Sunday 16:00 to Friday 12:00.

### **Accommodation**

**Deadline** for the Hotel reservation in the **Maritim is July 27.**

Please be sure to make your reservation until that date, otherwise rooms will become more expensive. Email address is [info.trv@maritim.de](mailto:info.trv@maritim.de)

### **Shuttle on Sunday Sept. 7**

There will be buses from Hamburg Airport to Travemünde – Maritim at 9:00, 11:00, 14:30, 17:00 and 20:00 h.

This is today's planning. If the actual needs differ from this schedule, the schedule will be changed. Information will be updated regularly.

### **Afternoon Schedule for Friday, Sept. 12/Shuttle**

#### **TTF Tour at DESY**

Details of the tour will be published at the SRF homepage soon. Please also check the DESY home page <http://www.desy.de> for some details about the TTF and TESLA project.

On Friday, Sept. 12 a tour to DESY is offered. We will leave Travemünde at noon.

There will be a shuttle service organized in the following way:

13:00 Maritim Travemünde – DESY, Hamburg

If, after the TTF tour at DESY, you want to get to Hamburg Airport, there is a bus leaving at 17:00 DESY –Hamburg Airport

If you need to go to Hamburg Airport directly from Travemünde, the same schedule applies:  
13:00 Maritim Travemünde – Airport Hamburg

This is today's planning. If the actual needs differ from this schedule, the schedule will be changed. Information will be updated regularly.

### **Accommodation from Friday, Sept 12 to Saturday, Sept 13**

If you intend to stay in Hamburg from Sept 12 to 13 please make your hotel reservation as soon as possible. You find a list of hotels near to DESY at [http://tesla.desy.de/meetings/collab\\_desy\\_jan03/Hotels.htm](http://tesla.desy.de/meetings/collab_desy_jan03/Hotels.htm)

### **Bank Details**

When making the bank transfer please do not forget to give the sender's name and institute and the recipient (= DESY). The bank details are

Hamburgische Landesbank  
BLZ (bank code) 200 500 00  
holder: DESY account No 303 800 010  
keyword: SRF2003, workshop account 250831

Payments have to be done in EURO. No other currencies will be accepted.

Please note that the workshop fee includes bus transfer, banquet and lunch at MARITIM-Hotel during Monday through Thursday.

The figures are:

- Payment received by August 4, 2003 440 EUR
- Payment received after August 4, 2003 470 EUR
- Additional lunch (per person): 96 EUR
- Additional banquet (per person): 78 EUR

### **Payment with Credit Card**

The early payment fee of EUR 440 applies, if the money is received before August 4. Early registration does not guarantee the reduced fee. Please send a fax (No +49-40-8998 4302) with the necessary credit card information (credit card number, card holder's name, card holder's signature, expiration date).

The late fee of 470 EUR applies if the money is received after August 4. If payment is done by credit card during the workshop, a 4.5 % credit card fee will be deducted in addition to the workshop fee.

### **Currency Exchange**

It will be no problem to obtain cash with credit cards in any currency. Charges will be similar to those of changing cash. Cash should be changed at Hamburg Airport, in Travemünde it might be difficult to change foreign currencies.

### **Companions's Programme**

We will not offer a guided companions's programme because many interesting sightseeing tours are offered by local services. The Kurverwaltung (sort of local travel agency) is nearby. All information on tours can be obtained and booked there. It goes without saying that the workshop secretaries will be happy to help you in selecting the optimum tours for you.

### **Reception**

On Sunday there will be a Welcome Reception in the basement of the Maritim. It will start at 6 pm. Registration will start on Sunday afternoon at 4 pm.

### **Dinner/Banquet**

On Wednesday, September 10, we will have a dinner from 7 pm to end (11 pm) on the sailing ship Passat, nowadays a museum ship. No evening dress is needed, casual wear is adequate.

### **Student Support**

A limited amount of money is available to support student participation at SRF2003. Students have to apply for financial support by sending a letter of recommendation written by their supervisor **not later than July 31, 2003**. Letters should be mailed or faxed to:

Prof. Dieter Proch  
DESY/MHF-SL  
Notkestrasse 85  
22603 Hamburg  
Germany  
Fax: +49-40-8998 4302

### **Information for Exhibitors/Sponsors**

For information please see the link Exhibitors/Sponsors on the SRF2003 Homepage.  
<http://srf2003.desy.de>.

### **Ground Transportation**

**By plane:** Travemünde is accessible from Airport Hamburg- Fuhlsbüttel, Germany within approx. 2 hours by public transportation. We will organize a shuttle on Sunday. The other days you should take the Airport Express (Jasper Bus) to Hauptbahnhof (main station) and change to the train there (see below). In other words: you have to travel within Hamburg from the Airport to main station, there you take a train to Lübeck where you will have to change trains to Travemünde.

Other possibilities are:

**By train:** You can reach Travemünde from all directions. The station is in walking distance (only 800 m) from the hotel. There is a train service between Lübeck and Travemünde every 30 minutes. For detailed information see the web page of die Bahn DB ([http://www.bahn.de/pv/uebersicht/die\\_bahn\\_international\\_guests.shtml](http://www.bahn.de/pv/uebersicht/die_bahn_international_guests.shtml)).

**By car:** Travemünde is only 15 km from Lübeck. From Hamburg and Hamburg Airport you take the A1 (freeway) Hamburg - Lübeck or Puttgarden - Lübeck. From Hamburg it takes approximately 50 minutes to reach Travemünde.

On the Lübeck tourism Web page: <http://www.luebeck-tourism.de/> click Lübeck - Directions on the blue bar. You will receive a map of Germany showing the freeways leading to Travemünde/Lübeck.

### Maps of Northern Germany and Lübeck-Travemünde

