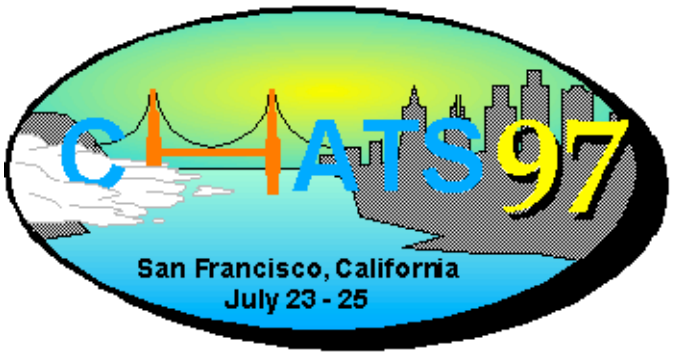

Workshop on Computation of tHermo-ydrAulic Transients in Superconductors
San Francisco, California
July 23-25, 1997

Welcome to San Francisco and CHATS-97. On behalf of the workshop sponsors we thank you for your participation, and hope you find the meeting interesting and productive. This package gives you some basic information about the workshop technical program, the social program, and directions to Fort Mason. Let me know if I can be any assistance during your stay. Once again, thank you for joining CHATS-97, and enjoy your visit to The City!

Cesar A. Luongo
CHATS-97 Organizer

Program Committee:

Cesar A. Luongo, *Bechtel*
Luca Bottura, *CERN*
Claudio Marinucci, *EPFL-CRPP*

Publications Committee:

Steven Van Sciver, *NHMFL*
John R. Miller, *NHMFL*

Directions to Fort Mason/Firehouse (from the Howard Johnson)

The first day (Wednesday) a CHATS-97 representative will be waiting for participants at the lobby of the Howard Johnson to accompany the group from the hotel to Fort Mason. The group will depart the hotel at **8:30AM**. Otherwise follow the directions on the map: Leave the hotel lobby by the back door and exit to Jefferson Street. Take a left on Jefferson (walk west) and continue until the street ends (at Hyde) and becomes a walkway. Continue on the walkway following the waterfront (Aquatic Park) until it ends at a street (Van Ness). Take a right as the street becomes another walkway leading to a pier. Before you enter the pier there will be a path going left and uphill (into Fort Mason). Take that path and follow it (you are walking above Fort Mason now) until you can take the long stairs down into Fort Mason's parking lot. At the bottom go right following the retaining wall, the small building at the end is the Firehouse.

CHATS-97 Technical Program

July 23 (Wed)		
AM		**Stability and Quench in He-I and He-II**
9:00-9:10	Luongo	Welcome and Introduction
9:10-9:50	Anghel	QUELL experiment: results and interpretation
9:50-10:30	Marinucci	Analysis of the QUELL experiment and comparison with numerical simulations (Gandalf)
10:30-10:45	**Break**	
10:45-11:30	Shajii et al.	Analysis of the QUELL experiment and comparisons with numerical simulations (QUENCHER)
11:30-11:50	Blau	Stability experiments in full-size ITER conductors in SULTAN
11:50-1:00 PM	**Lunch**	
PM		**Stability and Quench in He-I and He-II (cont'd)**
1:00-1:45	Lebrun	Thermohydraulic transients in He-I and He-II at the Large Hadron Collider (LHC)
1:45-2:30	Freidberg and Shajii	Overview of computational and analytical work at MIT
2:30-2:45	**Break**	
2:45-3:30	Ricci et al.	Thermo-hydraulic computation of the stability and quench behavior of the ENEA Nb_3Sn pulsed coil: Comparison with the experimental results
3:40-4:15	Miller	Quench experiments in He-I and He-II at NHMFL
4:15-5:00	Duchateau	Evaluation of magnet losses from He-II temperature measurements in TORE SUPRA

CHATS-97 Technical Program (Cont'd)

July 24 (Thu)		
AM		**Stability and Quench in He-I and He-II (cont'd)**
9:00-9:45	Heller	Experiments with the LCT coil in He-II
9:45-10:30	Zanino and Bottura	Mithrandir+: Simulation of quench in He-II
10:30-10:45	**Break**	
10:45-11:30	Chorowski et al.	LHC prototype magnet string - quench thermohydraulics and helium recovery
11:30-12:45	**Lunch**	
PM		**Superconducting Magnet Design Tools and Experience (Reducing Research to Practice)**
12:45-1:30	Van Sciver	Forced flow He-II cooling for superconducting magnets - design considerations
1:30-2:15	Schermer	Industrialization of superconducting accelerator magnets
2:15-2:30	**Break**	
2:30-3:15	Schultz	A review of magnet design tools at MIT
3:15-4:00	Bottura	Stability and quench in CICCs - A revised designer's approach

CHATS-97 Technical Program (Cont'd)

July 25 (Fri)		
AM		**Current Distribution in Cables: Effect on Magnet Performance**
9:00-9:45	Amemiya	Overview of current distribution and re-distribution in superconducting cables and their influence on stability
9:45-10:30	Heller	Analysis of the Electrodynamics of Subcable Current Distribution in the POLO Coil Cable
10:30-10:45	**Break**	
10:45-11:30	Schild and Ciazynski	Current distribution in Cables in Conduit: Special emphasis on the effect of the connections
11:30-1:30	**Lunch**	**Visit to Fort Mason Museums**
PM		**Current Distribution in Cables: Effect on Magnet Performance (cont'd)**
1:30-2:15	Mito	Increase of AC losses for a CICC coil due to the non-uniform current distribution the cable
2:15-3:00	Amemiya	Influence of current re-distribution on minimum quench energy of triplex cable against local disturbance
3:00-3:45	Verweij	Computational models of current distribution
3:45-4:00	**Break**	
4:00-4:45	Open Discussion	Workshop wrap-up and future work

CHATS-97 Social Program

The workshop dinner will be held on Thursday, July 24, at Rosenblum Cellars in Alameda. We will get there and return by Ferry which will provide an opportunity to enjoy the crossing of San Francisco Bay (bring warm clothes!).

	Workshop Dinner at Rosenblum Cellars (Alameda)
4:00 PM	Depart by bus from Ft. Mason to Ferry
4:45 PM	Ferry departs from Pier 39
5:40 PM	Arrive at Rosenblum Cellars (Alameda)
8:40 PM	Depart Alameda by Ferry
9:20 PM	Ferry arrives at Pier 39 (short walk to hotel)

We will leave Fort Mason to Pier 39 by bus shortly after the completion of the day's session at 4:00PM. The Ferry leaves from Pier 39 at 4:45PM and arrives in Alameda at 5:40PM.

Companions should go directly to Pier 39 (a short walk from the hotel) and meet our group there. ***Make sure you arrive no later than 4:30PM***. You could also meet us at Fort Mason and ride the bus with the group (in that case make sure you arrive at Fort Mason no later than 4:00PM).

Important note: The Alameda Ferry departs from Pier 39, however, there is a possibility (uncertain at the time of this writing) that the Ferry may leave from Pier 41 instead (it is the pier right next to it). Please inquire when you get to the piers to make sure you are at the right place. Tickets to the Ferry will be provided, so there is no need to purchase tickets.

If for whatever reason you miss the Ferry at Pier 39, take a taxi to the Ferry Building at the end of Market Street (Downtown), the same boat leaves downtown at 5:10PM (the berth is on the left of the Ferry Building, you do not need to enter the building).

We will return from Alameda on the last Ferry at 8:40PM (arriving at Pier 39 at 9:20PM after a stop in Oakland's Jack London Square). If you desire to return earlier, you can take the 7:30PM Ferry (we may still be having dinner by then) which arrives Downtown at 8:10PM (this Ferry run does not go to Pier 39 so you will have to take a taxi back to the hotel).

The Social Program also includes a group lunch at Green's, a vegetarian restaurant in Fort Mason, on Wednesday, and a long lunch break on Friday so that you can walk around Fort Mason, enjoy the views and visit some of its museums (Mexican Museum, Italian-American Museum, Craft and Folk Art Museum, Museum of African American Military History, and numerous non-profit organizations).

Directions to Fort Mason/Firehouse (from the Howard Johnson)

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Ferry to Alameda

Hotel

Fort Mason/Firehouse

CHATS-97 Dinner Menu (Thursday, July 24, 1997)