



LLRF05



Second Bulletin, July 2005

Workshop on Low Level RF CERN, Geneva, 10-13 October 2005

Sophisticated Low Level RF systems are needed in modern particle accelerators to deal with the characteristics of state-of-the-art RF accelerating structures and their power sources, and to meet unprecedented levels of performance. The goal of the LLRF05 Workshop is to share experience between linac and synchrotron projects (SNS, J-PARC, ILC, LHC etc.) and to discuss the best engineering practice.

This four-day Workshop will be the 15th in the series of mini-workshops under the auspices of the ICFA Beam Dynamics Panel (<http://www-bd.fnal.gov/icfabd/>) and specifically will be the second in a series on low level RF techniques, initiated at Jefferson Lab, USA, in 2001 (<http://www.jlab.org/intralab/calendar/archive01/LLRF>).

This is the second bulletin concerning the LLRF05 workshop. The first can be found at the workshop site <http://cern.ch/LLRF05>

Registration

Workshop registration is now approaching the final date – 1 August 2005. Considerable interest has been shown in LLRF05. There are already ~ 70 participants, and we are now approaching the maximum numbers that can be accepted. If you are interested in participating please register soon at <http://cern.ch/LLRF05>. We remind you that the registration fee of 200 CHF will be payable cash in Swiss Francs upon arrival. It includes a welcome reception on Sunday 9th October, a Workshop dinner on Tuesday 11 October and the CD-ROM of the presentations.

Please note also that very few CERN hostel rooms remain available and must now be booked by contacting the hostel directly at cern.hostel@cern.ch (not via the LLRF05 website). Please also note that hotel rooms in Geneva are usually booked well in advance.

Programme

We thank very much all those who have submitted abstracts. Following the closure of registration we will contact all authors individually. At the same time we will post the initial version of the complete scientific programme including posters and mini-oral talks on the web-site. This will be updated periodically as final details are known.

The definition of the programme of invited talks which will take place is well advanced, the session chairmen and the convenors of the four working groups and their scientific secretaries have been nominated. Details can be found below.

We encourage all participants to contact the working group convenors with any ideas of subjects, controversial issues etc. that they would like to have discussed.

We remind you that talks will be made immediately available on the web and although there will be no published proceedings a CD-ROM with all the material presented at the Workshop will be distributed to the registered participants.

Contact

Please address any enquiries to Ab-Rf Secretaries@cern.ch to be dealt with by:
Patricia Shinnie, Secretary to the Scientific Programme Committee, or
Lidia Ghilardi, Secretary to the Local Organizing Committee.



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LLRF05 - Draft Workshop Programme

Draft 25/07/05

Sunday Oct. 9th			Monday Oct. 10th			Tuesday Oct. 11th			Wednesday Oct. 12th			Thursday Oct. 13th			
			Registration Day from 08h15			Registration Morning from 08h15									
			Opening session - overview talks			Talks Session 2			Talks Session 3			Closing session - Talk Session 4 - WG summaries			
			Session Chairman / Scientific Secretary	Trevor Linneear		Session Chairman / Scientific Secretary	Curt Hovater		Session Chairman / Scientific Secretary	Roland Garoby		Session Chairman / Scientific Secretary	Mark Champion		
			08h45-08h55	Welcome	Steve Myers - CERN AB Dept. Leader	08h30-08h50	CERN LHC LLRF	Philippe Baudreghien	08h30-09h00	Fermilab SMTF Proton Driver	Brian Chase	08h30-09h15	Tutorial 4. Algorithms for digital RF low level control	Ennar Vogel	Tutorials 45 min
			08h55-09h00	Admin details	Trevor Linneear	08h50-09h10	CERN LEIR LLRF	Maria Elena Anguilla	09h00-09h20	RF for Large heavily loaded rings: limiting factors and promising new developments	Orin Teitelman	09h15-09h35	Low-Level RF Control System Characterisation and Optimisation SNS LINAC	Hengjie Ma	30 min talk
			09h00-09h30	Open issues from 1st LLRF workshop	Curt Hovater	09h10-09h30	CERN LINAC LLRF	Tony Rohlev	09h20-09h40	RF front end systems for for LLRF: Up and Down Convertors	Guenter Mueller	09h35-10h05	Low-Level RF to Controls Interface: Future perspectives	Larry Doolittle - to be confirmed	20 min talk
			09h30-10h00	KEKB RF system	Kazunori Aka	09h30-09h50	Femtosecond Stable Timing and Synchronisation Sylems	Volker Schott	09h40-10h00	State of the art in Receivers, low noise, Low drift, Ultra Linear	John Musson - to be confirmed	10h05-10h25	Visual Elite and Implementation of Algorithms	John Malendik	
COFFEE															
			10h30-10h50	Bunch by bunch feedback system for KEXB	Makoto Tobiya	10h20-10h40	Field Control of Lightly Beam-Loaded cavities	Jean Delayen	10h30-10h50	Transient Microphonics effects in SRF cavities	Tom Powers	11h00-11h30	Working group 1 summary	Mike Brennan	
			10h50-11h20	LLRF developments at CERN	Florming Pedersen	10h40-11h00	Noise effects on stored beams in HERA	Serguei Ivanov	10h50-11h10	Precision Low-Noise field detectors - state of the art	Frank Ludwig	11h30-12h00	Working group 2 summary	Mark Champion	
			11h20-11h40	Klystron Amplitude linearisation and application to PEP II	John Fox	11h00-11h20	RF noise in the Tevatron	Valek Lebedev	11h00-11h30	RF Reference Systems / Master Oscillator and Frequency Distribution	Krzyszof Czub	12h00-12h30	Working group 3 summary	Stefan Simrock	
			11h4-12h00	Operation and performance of PEP-II LLRF	Dirk Van Winkle	11h20-11h50	Cornell Digital LLRF system	Serguei Belostemnykh	11h30-11h50	LLRF System diagnostics	Tomasz Jezynski	12h30-13h00	Working group 4 summary	Brian Chase	
			12h00-12h30	SNS Linac system	Mark Champion	11h50-12h35	Tutorial 2 Cavity and RF Control Modeling	Larry Doolittle / Daniel Kolbhaar / Townsend Zwart - to be confirmed	11h50-12h05	Tutorial 3 LLRF model extraction etc.	Orin Teitelman	13h00 - 13h10	Closing Remarks	Trevor Linneear	
			12h30-13h00	SNS Ring LLRF	Kevin Smith										
LUNCH															
			Talks Session 1			Working Groups (1-4) Session 1			Working Groups (1-4) Session 2			VISIT TO CERN MACHINES			
			Session Chairman / Scientific Secretary	Larry Doolittle		Working Group Convenors	1) Mike Brennan 2) Mark Champion 3) Stefan Simrock 4) Brian Chase		Working Group Convenors	1) Mike Brennan 2) Mark Champion 3) Stefan Simrock 4) Brian Chase					
			14h00-14h20	Automation of large scale RF systems	Markus Hofmann	14h00 - 15h30			14h30 - 15h30						
			14h20-14h40	Digital LLRF feedback control for the J-PARC linac	Shinichiro Michizono										
			14h40-15h00	JLAB LLRF System	Thomas Ptawski - to be confirmed										
			15h00-15h20	Modularised Low Level RF for a L-band Klystron test stand at SLAC	Andrew Young										
TEA															
			15h50-16h10	Fermilab LLRF Software Architecture and Development	Paul Joireman - to be confirmed	16h00 - 17h00			16h00 - 17h00						
			16h10-16h30	Beam based feedback for Control	Holger Schlarb										

WG 1 Synchrotrons (LHC LLRF review)	Convenor: Mike Brennan	Sci. Sec.: Philippe Baudreghien
WG 2 Linacs	Convenor: Mark Champion	Sci. Sec.: Tony Rohlev
WG 3 Modelling	Convenor: Stefan Simrock	Sci. Sec.: Andy Butterworth
WG 4 Hardware	Convenor: Brian Chase	Sci. Sec.: Ed Capata