

Welcome and Introduction to the Workshop

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X-Band Structures and Beam Dynamics Workshop
1st – 4th December 2008
The Cockcroft Institute, Daresbury

Logistics



- **Today's Plenaries will take place in the Merrison Lecture hall.**
- **Morning coffee will be after first plenary directly outside Merrison**
- **Lunch will be in the Cockcroft Institute building (rm G08) at 12:00pm**
- **After 3 pm we will meet in the main lecture theatre of the Cockcroft Institute, the Walton Room and stay in CI.**
- **Thereafter the Plenaries will meet in the Cockcroft Institute.**
- **Safety exits are evident. Should there be a fire alarm –meet at the muster point outside**
- **Working groups will be in Walton (A-B), G08 rm C and S16**
- **Talks should be either uploaded via indico on the conference website or given to the Plenary Chair of WG Conveners**

Daresbury Campus



44th ICFA Workshop under the sponsorship of the ICFA BD Panel

Overview



- **Welcome to The Cockcroft Institute!**
- **For any help with taxis etc please contact Sue Waller (sue.waller@stfc.ac.uk, or room S 01 on top floor).**
- **The meeting is scheduled to finish at lunch time on Thursday. A full Thursday morning plenary session is scheduled and a summary of WGs will be the final session after coffee.**
- **The tour of ALICE (aka ERLP) will be on Wednesday at 4 pm in groups of 10. Any delegates who have not signed up need to do so by the end of the morning**
- **Banquet attendees on Tuesday will take a bus from Cockcroft at 6:00 pm directly to Ruthin Castle in N. Wales. Laptops can be stored securely in the Walton rm.**
- **The deadline for JACoW papers is Thursday 4th Dec. These should either be uploaded on the indico server or emailed to editor Hywel Owen (hywel.owen@manchester.ac.uk).**

Planning

- **Build on success of two X-Band Workshops at CERN (June 2007) and KEK (May 2008)**
- **Idea first postulated at EPAC08. Thanks to Walter Wuensch for these initial inspiring exchanges.**
- **ICFA umbrella includes JACOW decision - Open Access publishing. All papers should be submitted this week.**
- **Also, in addition there is the opportunity to submit to special workshop issue of PRST-AB: XB08.**
- **Thanks to Sponsors: CST, CPI, Q-par Angus ltd, ITech, CI**
- **Valuable advice – especially:
Walter Wuensch, Swapan Chattopadhyay, Richard Carter**
- **Please help your Convenors in the Working Group sessions!**
- **82 registered (host + 59)**

Purpose and Goals



- Pool collective resources in the X-band area.
- Collate the current state of the art in X-band in linear colliders, light sources and medical accelerators
- There have already been two X-Band workshops at CERN and KEK focussing on breakdown issues associated with high gradient applications (for CLIC in particular).
- This workshop will include these breakdown considerations but will also broaden the issues to embrace RF high power (RF source, coupler matching, wakefields) and beam dynamics concerns.
- For linear colliders, the heart of the collider is the main linac and associated drive beam. RF sources, beam dynamics and an appreciation of fabrication tolerances is a goal to be address by all WPs.
- Medical and industrial state of the art and future R&D will be part of final WG summaries
- Enjoy the workshop and foster new collaborations!

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WG Practical Matters



- All Working Groups will convene after the plenary sessions have completed at 3:40 pm each day.
- Those of you who have not signed up for a WG should do so during the coffee or lunch break.
- The WG room allocations will be posted in the back of the Walton room as they develop.
- Details of WGs, titles and authors of talks will be similarly posted
- This is a workshop! And so feel free to submit talks as they develop to the WG conveners. It is expected that some talks will develop organically as a result of the stimulus of earlier talks.
- Proposed joint WGs will be posted

Goals

- **Review state of art X-Band Developments**
- **Understand proposed project demands –and integrate physics with industrial/practical aspects**
- **Examine R&D challenges – Colliders (CLIC), Medical, Industrial and associated features**
- **Summarise future development priorities**
- **Recommend necessary steps - physics and technology**
- **Strengthen/foster international collaborations**