# Report of AD&I Phone meeting

## 12/Oct/2011 (Yesterday)

**Short (~1 h) meeting,**
**Preparation for TBR (BTR) meeting at DESY (24-27/Oct/2011)**

**13-Oct-2011**
**ILC-CLIC e+ studies**
**T. Omori (KEK)**

# AD&I Phone meeting

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http://ilcagenda.linearcollider.org/conferenceDisplay.py?confId=5362

# AD&I Meeting planning for DESY Baseline Technical Review (Oct 24-27).

chaired by Marc Ross (FNAL)

Wednesday 12 October 2011 from **15:00** to **16:50** (Europe/Berlin)
at **Universe**

## Wednesday 12 October 2011

15:00 - 15:10 Final agenda for BTR *10'*

15:10 - 15:50 Major proposed changes to RDR baseline *40'*

Electron source *05'*
Speaker: John Sheppard (SLAC)

Positron source *10'*
Speakers: , Wei Gai (ANL)

RTML *10'*
Speaker: Nikolay Solyak (FNAL)

BDS/MDI *10'*
Speaker: Andrei Seryi (John Adams Institute)

Central region (general) *10'*
Speakers: Ewan Paterson (SLAC) , Mark Palmer (Cornell University LEPP)
Material: **Slides**

15:50 - 16:00 Preparations for CFS at the BTR *10'*
Speaker: Victor Kuchler (Fermilab)

16:00 - 16:10 Physics and detector input *10'*
Speaker: Jim Brau (U. Oregon)

16:10 - 16:15 AOB *05'*

# Plan of TBR (BTR) meeting at DESY

**24-27/Oct/2011**

http://ilcagenda.linearcollider.org/conferenceOtherViews.py?view=standard&confId=5222

# BTR Programme

- Formal baseline design review for:
  - sources, RTML, BDS/MDI
- Basic format:
  - System parameters, design, layout, tech. systems
  - CFS requirements
  - Cost
  - AS specific issues
  - Phys. & detector input

Documentation for EDMS!

| | Mon. 24.10 | Tue. 25.10 | Wed. 26.10 | Thu. 27.10 |
|---|---|---|---|---|
| AM | Intro & BDS/MDI | e+ source | e- source | RTML (general) |
| | BDS/MDI | e+ source | e- source | Central Region Integration |
| PM | BDS/MDI | e+ source | RTML (1 vs 2-stage BC) | TDR planning |
| | BDS/MDI | e+ source | RTML (1 vs 2-stage BC) | Close-out |

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Tuesday 25 October 2011 **Day 2: The e+ day**

09:00 - 10:30 Positron Source I

- 09:00 **Positron Source Parameters, Layout, etc.** *1h00'*
  Speaker: Wei Gai (ANL)
- 10:00 **Performance Simulations/Heat Stress/Shockwave, etc.** *30'*
  Speaker: Andriy Ushakov (University of Hamburg)

10:30 - 11:00 Coffee

11:00 - 12:00 Positron Source II

- 11:00 **Flux Concentrator R&D Status** *30'*
  Speaker: Jeff Gronberg (LLNL)
- 11:30 **Target R&D** *30'*
  Speaker: Jeff Gronberg (LLNL)

12:00 - 14:00 Lunch

14:00 - 16:00 Positron Source III

- 14:00 **Polarisation Issues** *30'*
  Speaker: Sabine Riemann (DESY)
- 14:30 **Auxiliary Source Layout and Parameters (incl. Back-up Source)** *30'*
  Speaker: M.Kuriki (Hiroshima)(WebEx)
- 15:00 **CFS Requirements/Remote Handling** *1h00'*
  Speaker: Victor Kuchler (Fermilab)

16:00 - 16:30 Coffee

16:30 - 18:00 Positron Source IV

- 16:30 **Positron Source Cost** *30'*
  Speaker: Gerald Dugan (Cornell University)
- 17:00 **Baseline Discussion** *1h00'*
  Speaker: Project Managers

Thursday 27 October 2011 **Day 4**

08:30 - 11:00 RTML

- 08:30 **RTML General Layout and Parameters etc.** *45'*
  Speaker: Nikolay Solyak (FNAL)
- 09:15 **RTML Beam Dynamics (Start to End)** *30'*
  Speaker: Andrea Latina (CERN)
- 09:45 **CFS Requirements** *45'*
  Speaker: Victor Kuchler (Fermilab)
- 10:30 **RTML Cost** *30'*
  Speaker: Gerald Dugan (Cornell University)

11:00 - 11:30 Coffee

11:30 - 13:00 Central Region Integration **e+ related**

- 11:30 **Central Region Integrat...**
  Speaker: Mark Palmer (Cornell University LEPP)
- 12:00 **Global Timing Considerations** *15'*
  Speaker: Ewan Paterson (SLAC)
- 12:15 **CFS Requirements (Central Region Tunnel Layout)** *45'*
  Speaker: Victor Kuchler (Fermilab)

**Layout, Timing, , ,**

13:00 - 14:00 Lunch

14:00 - 16:05 TDR Planning and Close-Out I

- 14:00 **TDR Planning/Milestones for Electron Source** *25'*
  Speaker: John Sheppard (SLAC)
- 14:25 **TDR Planning/Milestones for Positron Source** *25'* **e+ planning**
  Speaker: Wei Gai (ANL)
- 14:50 **TDR Planning/Milestones for RTML** *25'*
  Speaker: Nikolay Solyak (FNAL)
- 15:15 **TDR Planning/Milestones for BDS/MDI** *25'*
  Speaker: Andrei Seryi (John Adams Institute)
- 15:40 **TDR Planning/Milestones for CFS** *25'*
  Speaker: Victor Kuchler (Fermilab)

16:05 - 16:35 Coffee

16:35 - 18:05 TDR Planning and Close-Out

- 16:35 **PM Close-Out and Discussions** *1h30'*
  Speaker: Project Managers

# Ewan's 4-page talk at AD&I yesterday

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# Open Central Region Topics for AD&I and BTR Meetings

Ewan

October 10, 2011

Discussions without final decisions?

Timing

10 Hz

Auxiliary Source

# Overall E+/E- Timing

- **Path Lengths** Central Region — Close to final design
  Linac — Decision ?? When
  Turn-around — Needs final decision
- **Possible working decision :-**

  Final adjustment will be shortening of E+ linac to BDS length (compared to e+ source side) where there is ≤ 1km possible. This should be enough unless linac longer!

- **We need to start discussions on expected final path length accuracy and methods of final adjustment.**

# Low Energy 10 Hz Running

- To complete “Central Region” layout ( other than Timing and Auxiliary Source) we need beamline layout for 5 Hz electron beam which produces photons only and is then dumped.
- Several suggestions have been made with unspecified transport lines and beam dumps but we need working solution
- Propose for discussion a simple pulsed beam dump at 5 Hz immediately after the undulator!

# Auxiliary E+ Source

- Proposed :- Single bunch 500 MeV S-band linac just upstream of target/capture systems.

  Thick 4 r.l. target and 20% yield for initial commissioning. Standard 0.4 r.l. target and 2% yield for diagnostic use in routine restarts.
- Need agreement with DR and E+ systems that this is satisfactory!

**About timing issue, Omori proposed (in AD&I meeting yesterday) to ask Kuriki-san to make short presentation via WebEx, because he was once one of members of the timing issue expert-team in 2006-2008.**

**Ross-san agreed to allocate a slot for the presentation.**