

# **1. LCFORUM Meeting**

Monday, June 14, 2010 - Tuesday, June 15, 2010

DESY

## **Book of Abstracts**



# Contents

ILC –Global Overview . . . . .	1
LC activities at CERN . . . . .	1
Discussion: Being prepared for first LHC results – what do we expect, what is still to do?	1
No news at LHC -> ILC as discovery machine . . . . .	1
Electroweak non-resonant corrections to $e^+ e^- \rightarrow W^+ W^- b \bar{b}$ in the $t \bar{t}$ resonance region . . . . .	1
Physics in strong fields . . . . .	1
Need of precision tools for ILC electroweak physics . . . . .	1
WHIZARD 2 – Simulating BSM and SM at LHC and ILC . . . . .	2
Benno List: Photon Radiation . . . . .	2
Treatment of Photon Radiation in Kinematic Fits . . . . .	2
Polarimetry Efforts at DESY . . . . .	2
Beam Background in Simulation and Reconstruction . . . . .	2
Spin tracking . . . . .	2
Overview Accelerator Physics for the Terascale . . . . .	2
Simulation of the interaction between a positive charged beam and an electron cloud . . . . .	3
TPC Studies for a Detector at CLIC . . . . .	3
Search for WIMPS with Single Photons . . . . .	3
Forward Calorimetry at ILC . . . . .	3
The Electron Reconstruction Efficiency for the Beam Calorimeter of an ILC Detector . . . . .	3
PETRA III and Damping Rings - Common Aspects and Differences . . . . .	3
The LC in view of LHC results . . . . .	4
Second sound as diagnostic tool . . . . .	4
Accelerator Theory and Simulation at Rostock University . . . . .	4

Fittino Features . . . . .	4
TPC Activities in Germany . . . . .	4
LC Calorimetry (via evo) . . . . .	4
Status of Fast Detector Simulation . . . . .	4
Overview about vertex activities . . . . .	5

LC and future steps / 5

## **ILC –Global Overview**

Corresponding Author: b.foster1@physics.ox.ac.uk

LC and future steps / 6

## **LC activities at CERN**

Corresponding Author: michael.hauschild@cern.ch

LC and future steps / 7

## **Discussion: Being prepared for first LHC results – what do we expect, what is still to do?**

Physics and Analyses / 8

## **No news at LHC -> ILC as discovery machine**

Corresponding Author: jochum@physik.uni-freiburg.de

Physics and Analyses / 9

## **Electroweak non-resonant corrections to $e^+ e^- \rightarrow W^+ W^- b \bar{b}$ in the $t \bar{t}$ resonance region**

Corresponding Author: jantzen@physik.rwth-aachen.de

Physics and Analyses / 10

## **Physics in strong fields**

Corresponding Author: anthony.hartin@desy.de

Physics and Analyses / 11

## **Need of precision tools for ILC electroweak physics**

Corresponding Author: tord.riemann@desy.de

**Physics and Analyses / 12**

## **WHIZARD 2 – Simulating BSM and SM at LHC and ILC**

**Corresponding Author:** reuter@physik.uni-freiburg.de

13

## **Benno List: Photon Radiation**

**Physics and Analyses / 14**

## **Treatment of Photon Radiation in Kinematic Fits**

**Corresponding Author:** benno.list@desy.de

**Accelerator / 15**

## **Polarimetry Efforts at DESY**

**Corresponding Author:** daniela.kaefer@desy.de

**Detector and Analyses / 17**

## **Beam Background in Simulation and Reconstruction**

**Corresponding Author:** katarzyna.wichmann@desy.de

**Accelerator / 18**

## **Spin tracking**

**Corresponding Author:** anthony.hartin@desy.de

**Accelerator / 20**

## **Overview Accelerator Physics for the Terascale**

**Author:** Eckhard Elsen<sup>1</sup>

<sup>1</sup> DESY

**Corresponding Authors:** karsten.buesser@desy.de, eckhard.elsen@desy.de

**Accelerator / 21**

## **Simulation of the interaction between a positive charged beam and an electron cloud**

**Author:** Aleksandar Markovik<sup>1</sup>

<sup>1</sup> *Uni Rostock*

**Corresponding Author:** aleksandar.markovik2@uni-rostock.de

**Detector and Analyses / 23**

## **TPC Studies for a Detector at CLIC**

**Detector and Analyses / 25**

## **Search for WIMPS with Single Photons**

**Corresponding Author:** christoph.bartels@desy.de

**Detector and Analyses / 26**

## **Forward Calorimetry at ILC**

**Detector and Analyses / 28**

## **The Electron Reconstruction Efficiency for the Beam Calorimeter of an ILC Detector**

**Corresponding Author:** olga.novgorodova@desy.de

**Accelerator / 29**

## **PETRA III and Damping Rings - Common Aspects and Differences**

**Corresponding Author:** rainer.wanzenberg@desy.de

**LC and future steps / 31**

## **The LC in view of LHC results**

**Corresponding Author:** georg.weiglein@desy.de

**Accelerator / 32**

## **Second sound as diagnostic tool**

**Corresponding Author:** muhrmac@gwdg.de

**Accelerator / 33**

## **Accelerator Theory and Simulation at Rostock University**

**Corresponding Author:** gisela.poeplau@uni-rostock.de

**Physics and Analyses / 34**

## **Fittino Features**

**Detector and Analyses / 35**

## **TPC Activities in Germany**

**Corresponding Author:** pschade@mail.desy.de

**Detector and Analyses / 36**

## **LC Calorimetry (via evo)**

**Corresponding Author:** kseidel@mpp.mpg.de

**Detector and Analyses / 37**

## **Status of Fast Detector Simulation**

**Corresponding Author:** berggren@mail.desy.de



**Detector and Analyses / 38**

## **Overview about vertex activities**