



Introduction and Scope

I. Bailey Cockcroft Institute



27th March 2008

Models of Polarisation at Linear Colliders

Practicalities

- Wireless network access
 - Connect to 'guest' network
 - No WEP key required
- Transport
 - The CI will provide prepaid taxis to and from the Park Royal and Premier Travel Inn (Warrington South) on Thursday evening and Friday morning. We can book taxis on your behalf to other destinations (airport, etc)
 - If you have any queries about transport please contact Liz Kennedy
 - office: S02
 - Email: <u>e.l.a.kennedy@dl.ac.uk</u>
 - Tel: 01925 603820
- Lunch on Friday
 - Lunch will take place in the 'Ring of Bells' pub in Daresbury. A table has been booked for 12:15 in my name. We can leave as a group from the CI at noon.
 - The meals are prepaid, but delegates are asked to pay for their own drinks.

Origin and aims of Workshop

- Suggested by Eckhard Elsen and Daniel Schulte at the EUROTeV 2008 meeting in Frascati.
- To understand models of depolarisation at the IP of future linear colliders and identify any further work required.
- To identify more generally the ongoing and future work on spin dynamics simulations related to spin tracking for future linear colliders.
- To set timelines and coordinate our efforts where appropriate.
- Identify future directions and projects that may benefit from our work.

Some Specific Questions

- What are the limitations of the models already implemented in CAIN?
- Will the same models be implemented in Guinea-Pig++? Would it be better to implement different models to control sytematic uncertainties? If so then what are the options?
- What are the missing pieces in tracking the evolution of polarisation through ILC and CLIC?
- What are the relevant differences between ILC and CLIC?

A Naïve Look at the Problem Source P~80% / 30%? Depolarisation effects ΔP_{Iw}/P~0.1% ? Precession ~ 360° ? ΔP~0.1% ? Upstream Downstream Beam-Beam Polarimeter Polarimeter Expect Expect Require $\Delta P_{meas} \sim 0.25\%$? $\Delta P_{meas} \sim 0.25\%$? $\Delta P_{lw} \sim 0.25\%$ or ΔP_{Iw} ~0.1% ?

Timetable Thursday 27th March



Timetable Friday 28th March

