Precision Measurements with Calibration Data at the Z-pole

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"With small changes to ILC baseline great additional physics will be possible"

1 Why we need Polarimetry and Beam Energy Measurement at the Z-pole

1.1 Calibration

- polarimetry - energy measurement

1.2 Physics

- precision on EW quantities from calibration data sets - push-pull -; interesting integrated lumi at Zpole

2 Necessary Modifications of the Baseline

2.1 Polarimetry @ 45.6 GeV

 $\mbox{-}\mbox{$\dot{\iota}$}$ cost $\mbox{-}\mbox{$\dot{\iota}$}$ depolarization not important $\mbox{-}\mbox{$\dot{\iota}$}$ fast relative measurent is important $\mbox{-}\mbox{$\dot{\iota}$}$ need to retune spin rotators

2.2 Beam Time

- spin rotator tuning - Energy Scans -; cost?

2.3 Positron Source?

Keep alive or decelerate? deceleration -¿ additional costs

3 Conclusions

Acknowledgments

Just in case....

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References

- [1] Slides:
 - http://indico.desy.de/contributionDisplay.py?contribId=1&sessionId=1&confId=585
- $[2]\ A.\ Author,\ B.\ Author\ and\ C.\ Author,\ Journal\ {\bf volume}\ (year)\ page\ [arXiv:hep-ph/....].$