

# The Future of LET Studies on the ILC DR – Near Term

James Jones  
ASTeC, Daresbury Laboratory



## Summary of Work So Far

- Work has been done to estimate both the uncorrected jitter tolerances and the tolerances with tuning algorithms.
- Currently the tuning tolerances have been separated into two essentially disparate algorithms.
- Work has started on investigating the effects of stray field errors on the vertical emittance.
- Simulation codes have been partially verified against each other, and give confidence in the different implementations of emittance calculation.

# What's Next?

- Simulations need to be extended to include (amongst others)
  - A larger variety of error sources
  - A more direct comparison of the various methods of tuning
    - Orbit & Dispersion correction versus separated dispersion correction.
    - Orbit correction using dipolar correctors or quadrupole movers.
  - Coupling bumps (where applicable)

## Who's going to do it?

- Currently the work described has been performed by A. Wolski, K. Kubo & J. Jones.
- Effort in this area is currently limited.
- However, what is really required?
  - Investigating and optimising tuning algorithm takes effort and time.
  - Generating statistics is easy but how good a comparison is needed?
- The future of this area looks brighter:
  - Possibly two RA's should be available within EuroTeV by next year (to work part time in this area)
  - Other commitments?