



RHUL Final Year

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EUROTeV Final Meeting,
DESY, Hamburg
30th January 2009

- 2008 Output
- Financial Summary

Overview of RHUL Projects 2008/9

- LBPM; a laser-wire system suitable for the ILC.
- ESPEC; energy spectrometry based on precision BPMs.
- COLSIM; simulation of collimators using BDSIM.

- **LBPM; a laser-wire system suitable for the ILC.**
 1. PETRAII hardware system completed previous year, together with measurements + NIM publication.
 2. Dismantlement of PETRAII system, upgrade in London, reshipped to DESY.
 3. Installed in PETRAIII; additional hardware costs for upgrade.
 4. Completed construction of ATF2 LW with commercial lens.
 5. Upgraded ATF2 LW with custom f/2 optic. NIM Publication nearly complete. (Micron scale precision has been verified)
 6. Completed study of laser-wires in the linear collider, including emittance measurement.
 7. Publications:
 1. Nuclear Instruments and Methods in Physics Research A 592 (2008) 162–170
 2. Phys. Rev. ST Accel. Beams 10, 112801 (2007)
 3. 1 Thesis
 4. 1 Thesis (M. Price, L. Deacon)

- ESPEC; Energy spectrometry based on precision BPMs.
 1. Cavity BPM system tests for the ILC energy spectrometer + NIM publication.
 2. High resolution cavity BPM Tests and ESA; Nim publciation.
 3. ESA test completed and new hardware shipped to KEK.
 4. Completed construction of ATF2 electronics and shipped to KEK.
 5. Planned inclusion of nBPMs in laser-wire system for bunch jitter subtraction. (Will continue under EuCARD)
 6. Publications:
 1. NIM A592 (2008) 201-217
 2. NIM A578 (2007) 1-22
 3. 1 Thesis (F. Gournaris, UCL)

Latest figures for DIAG: 2008

Personnel: € 26,776

Travel + Subsistence: € 2979

Consumables: € 34,326

Total: € 64,079

- COLSIM; simulation of collimators using BDSIM.
 1. BDSIM publication submitted to NIM
 2. BDS upgraded with inclusion of interface to PLACET (publication well advanced for PRST-AB)
 3. Publications
 1. 1 Thesis (J. Carter)
 2. 6 Eurotev notes

Latest figures for COLSIM: 2008

Personnel: € 0

Travel + Subsistence: € 1223

Consumables: € 0

Total: € 1,223

Financial Status

Final invoices are now coming in; status is converging. Audit fees € 1761

Summary:

Total direct eligible costs: € 67064

Total indirect costs: € 13,413

Total: € 80,476

Summary

- All deliverables have been met
- Some new possibilities have emerged (eg. nBPM inclusion in ATF2 laser-wire system)
- Final planning made difficult by exchange rate fluctuations.
- We look like we may now slightly overspend; final numbers are now converging.