

UK CALICE plans

Birmingham, Cambridge, Imperial,
Manchester, RAL, RHUL, UCL

Bid to funding agency

- Went to the funding agency in February
- Asked for £2.5M over the next 3 years for 5 workpackages
- Iterations between committees
- Emerge with cut-down and delayed scheme costing £2.7M over the next 4 years
- EuroDet makes up a lot of the shortfall

Workpackage 1: Complete the testbeam program

- All institutes, with David Ward in charge
- Analysis of test beam data from DESY, CERN and FNAL
- Comparison with simulations (WP5)
- Firmware and online software upgrades and maintenance
- Contributions to data taking, running shifts, etc

Workpackage 2: DAQ

- UCL, Cambridge, Imperial, Manchester and RHUL with Matthew Wing in charge
- New RAs at UCL and RHUL
- On-board dataflow (Cambridge)
- Networking dataflow (UCL/Manchester)
- VFE ASIC readout studies (Imperial)
- PCI optical receiver cards for off-detector (also part of EuroDET)

Workpackage 3: MAPS

- Birmingham, Imperial and RAL with Paul Dauncey in charge
- Monolithic Active Pixel Sensors have detector and (binary) readout on same wafer
- Standard CMOS fabrication - halve (?) silicon cost
- Much higher granularity - 1 MIP/pixel. Pattern recognition being studied
- Less/more material? Less/more heat?
- Two rounds of sensor fabrication. First in 2006
- Aim for Beam test with MAPS layer(s) 2008
- New RAs (Birmingham and Imperial)

Workpackage 4: Thermal+Mechanical

- Manchester with Roger Barlow in charge
- Work with École Polytechnique (and Lyon?)
- Glue studies (literature + ageing). Radiation?
- Thermal simulations - need information on design details
- Thermal measurements to validate simulations + cooling design
- Assembly robot: pattern recognition and placing for 24,000,000 pads

Workpackage 5: Simulation and Physics

- Birmingham, Cambridge, Imperial, RHUL and UCL with Nigel Watson in charge
- New posts at RHUL, Birmingham, Cambridge and UCL
- Energy flow algorithms
- Optimising global detector design
- Support of other workpackages
- Physics studies: benchmark analyses

Conclusions

- Lots going on over the next few years (and beyond)
- Many new posts (split between WPs)-
tell your students