

LHC Accelerator Research Program Beam Instrumentation Summary

LARP Meeting

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John Byrd



LARP Beam Instrumentation and Diagnostic Techniques

LARP will help the LHC in 3 key areas:

- *Bring LHC to full energy*

Betatron tune, coupling, and chromaticity control during ramp

- *Bring LHC to design luminosity*

Real-time luminosity monitor

- *LHC machine protection*

Longitudinal density monitors

These contributions advance the state-of-the-art in beam instrumentation and have direct contributions to present and future US accelerator projects.



Budgets

	FY04 (k\$)	FY05 (k\$)
Tune Control	138	195
Luminosity Monitor	162	395
Abort Gap Monitor	80	0



Topics for Discussion

- Determine specific criteria for meeting milestones:
 - When does luminosity R&D move to production?
 - Approach for betatron tune control?
- Budget requirements for FY06 and beyond.
 - begin definition of deliverables
 - incorporate commissioning manpower needs
- Topics for additional instrumentation:
 - Schottky monitors
 - AC dipole

