



ATF2: Laser-wire Transitional Strategy

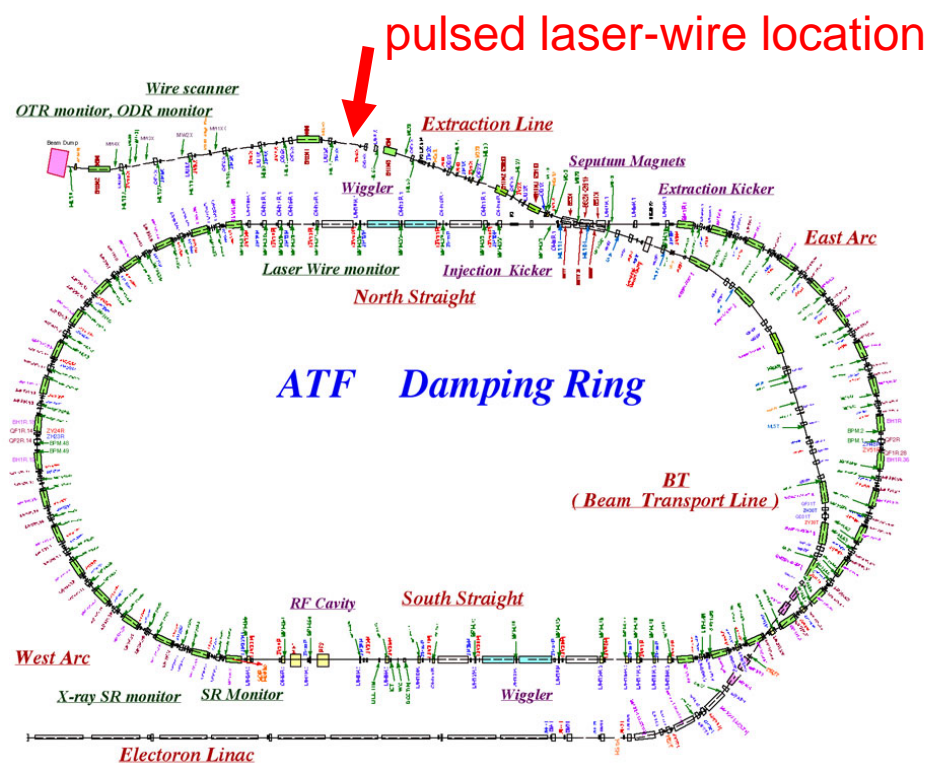
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Second ATF2 Project Meeting,
KEK,
1st June 2006

- Current Status
- Transition
- Possible Scheduling Strategy

ATF Laser-wire

- At ATF, we will aim to measure micron-scale electron spot-sizes with green (532 nm) light. This will continue during transition
- We will iterate on lens design; upgrading from f/2 to towards f/1 optics.
- Depending on the emerging transition schedule, we may also look at reflective solutions to f-1 optics.



ATF/ATF2 LW Plans

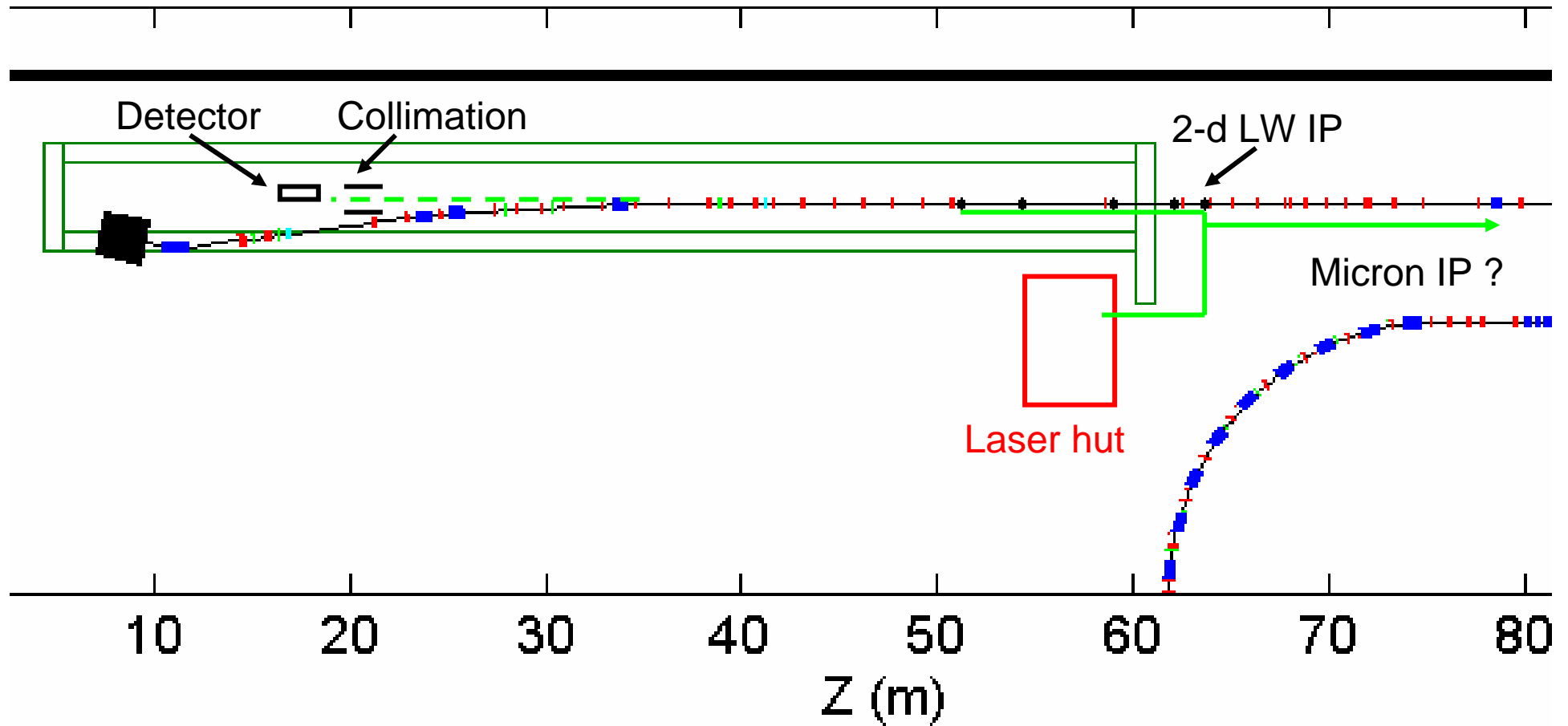
During transition

- Maximise machine studies using existing LW IP.
- Lots of systematics to understand (eg beam jitter, BPM integration, acceptance issues ...)
- Iteration on lens design.
- Improve existing laser system; spatial filtering, temperature stability, performance diagnostics ...

Once we have achieved the optics performance, the LW must evolve into an effective, reliable diagnostic tool for machine studies.

As mentioned in the earlier discussions: we would like to maintain an IP at a location of ~1micron vertical spot-size to continue to develop towards ILC specs.

Possible Stage 1-3



Final number of IPs will depend on level of funding

Summary

- ATF LW is very active and producing results
- We expect this to continue into 2007 and beyond
- We will have lots to learn from our current IP both on the LW technology and from machine studies.
- We would like, if possible, to maintain a “micron” R&D location as we develop ILC f-1 optics.
- We would like to continue to take LW data during the transitional period.