
Jefferson Lab Developments towards the ILC and US – Japan Collaboration

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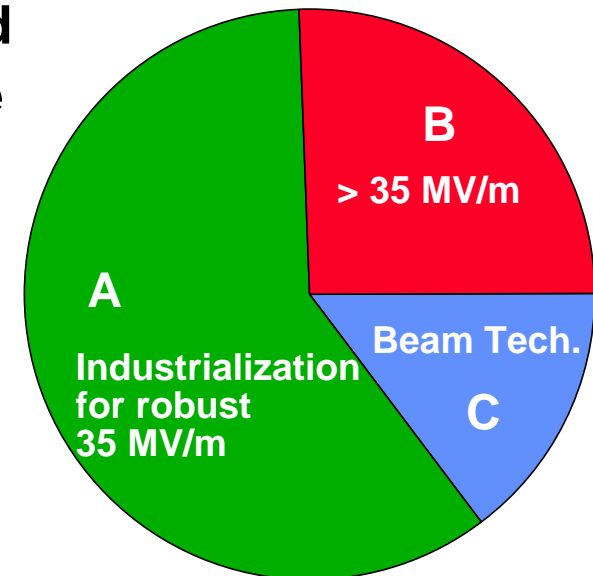
Thomas Jefferson National Accelerator Facility

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View of Priorities for Immediate ILC Development

- A. Establishment and industrialization of technology for robust and reliable accelerating gradient of 35 MV/m from consideration of simplicity of design, and improved processes for high and reliable throughput
- B. Pursuit of $E > 35$ MV/m (~ 45 MV/m) from considerations of economics and contingency
- C. Beam Technology development for ILC from considerations of unique beam qualities in phase space



A. Establishment and industrialization of technology for robust and reliable accelerating gradient of 35 MV/m

- JLab Integrated Process, Procedure and Performance Improvement Initiative (talk by Warren Funk)
- Engineering Test Facility for streamlined production towards technology transfer to industry, identified and requested in the JLab SRF proposal solicited by DOE
- Actively interacting with industry (AES, ACCEL, . . .)



B. Pursuit of $E > 35$ MV/m (~ 45 MV/m)

- Proposed JLab/KEK work via US-Japan Collaboration (talk by P. Kneisel)
- Existing JLab/Cornell and JLab/DESY Collaboration



C. Beam Technology development for ILC

- Limited work at JLab in CEBAF and FEL using relativistic electron beams
- Plans for involvement in SMTF at Fermilab
- Plans for polarized electron/positron source development at JLab



Outlook

We look forward towards productive collaboration with Japan (KEK, other institutions and industry in Japan) in items A, B, and C in appropriate measures.

