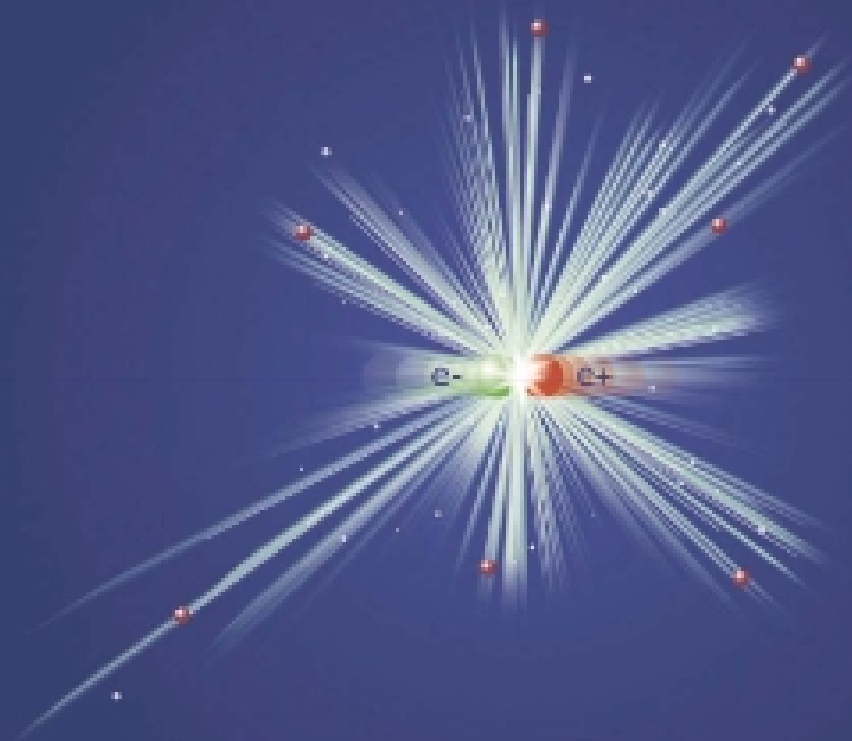


The International Linear Collider: The Physics and its Challenges



Harry Weerts
Argonne National Lab



Introduction: personal

Particle Physics: status & future

History, Matter & Interactions;

US program and worldwide program

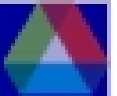
Open questions

Future Program and Open Questions

ILC Physics

The ILC: the machine challenges

The ILC : the detector challenges



Intro: personal

Hadron collider physics with Dzero experiment (MSU, Fermilab)
Since inception, >20 years

Needed something new before retirement.....

Time scales a concern in HEP

"Decided" ILC needs senior involvement

Young people busy &
not good for them

Spent sabbatical 2004-2005 at Fermilab.

Work on ILC only.

Learnt a lot, machine & detectors, a
lot of progress on ILC that year

Technology decision; GDE
formed, started on detector
concept study, Snowmass
2005

By Sept 2005: Well into ILC, also changed positions,
strengthen & define ILC program at Argonne
(Management & ILC)