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## **Role of Advanced Computation in the Design of the International Linear Collider.**

*Thursday, September 6, 2007 9:30 AM (30 minutes)*

The Global Design Effort for the International Linear Collider (ILC) has made use of modern computing capabilities in a number of areas: modeling the desired (accelerating) and undesired (wakefields, RF deflections) fields in the RF cavities, simulations of accelerator operations and tuning, prediction of accelerator uptime based on component performance and overall site design, and computer assisted design of accelerator components, beamlines, and regions. The use of advanced computing in these areas will be described, emphasizing both the new opportunities and the limitations present in the state of the art. Possible future developments will also be discussed.

### **Summary**

Peter Tenenbaum is an accelerator physicist at the Stanford Linear Accelerator Center (SLAC). He has worked on linear colliders for 16 years, beginning with the Stanford Linear Collider (SLC) and the Final Focus Test Beam (FFTB) experiment at SLAC. He has played a leading role in the development and use of simulation packages for the study of linear collider beam dynamics and beamline design.

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**Session Classification:** Plenary