

Director's Corner

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Barry Barish

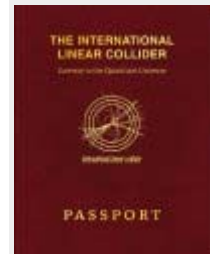
Frosting on the cake

Today we mark the conclusion of the Reference Design Report phase of the International Linear Collider Global Design Effort with the release of our document, *The International Linear Collider: Gateway to the Quantum Universe*. This new document is a companion to our four-volume technical set, the Reference Design Report, that describes the physics of the terascale, the ILC reference design and detector concepts. In fact, the companion document is, in a sense, the frosting on our four-layer cake. It tells our story to a much broader and less technical audience, including policy makers, scientists in other fields, and scientifically interested members of the general public. The RDR companion document can be requested online at www.linearcollider.org/gateway, a website that features the complete content of the report.

The RDR phase of our ILC design effort is now concluded and we will soon officially commence the engineering design phase of the ILC at the ALCPG07 and GDE meetings at Fermilab from 22 to 26 October 2007. I can't think of a better way to start this new effort than with the help of an excellent communication tool to help explain the project's science and technology goals in an engaging way. The report, officially released today, will play a very important role during this next phase, when we plan to both carry out the engineering design and convince our colleagues, our governments and the public to support the project. The *Gateway* document will be one of our primary tools to convey the excitement of future potential scientific discoveries that the ILC and its detectors will make possible.

The 38-page RDR companion report conveys the journey we are sharing in creating the design and eventual construction project, and doing it through a truly global effort. Perhaps the most unique feature of the global design effort toward the ILC is that the design, the leadership, the decisions and even the communication are carried out through a truly global process and collaboration. The new document exemplifies this theme, having been developed by an international team of scientific authors from all parts of the ILC effort, in partnership with our global team of communicators. The entire effort was very ably led by Phil Burrows of Oxford University. My thanks to them all for a fantastic job, and especially to Phil, who kept the process moving. His very high standards are clearly evident in the final product.

Our raison d'etre in the GDE is essentially to provide the tools to enable the next generation of discoveries at the Terascale through the historically successful technique of colliding electrons and positrons. Will we see supersymmetry or extra dimensions or maybe phenomena that haven't even occurred to us yet? We have very good reason to believe that this new energy regime will provide the answers to many of our most profound questions and be the basis of the next big revolution in particle physics. The LHC will give us our first views, hopefully within a few years, and we look forward to its early discoveries. These should provide validation of the exciting science of the ILC.



The companion to the RDR: Gateway to the Quantum Universe



Our travels with the ILC will take us to many exciting and exotic places.

You can read all about the anticipated physics at the Terascale in our new report. Printed copies will be available at ALCPG07 and can be ordered from the [communicators](#). You can read about the fascinating and challenging technologies now under development to pursue these goals, both in the accelerator to provide the collisions and in the detectors to probe the science. If your native language is not English, the next phase of the companion document will help. Over the course of the next year, the report will be translated into eight different languages: Japanese, Chinese, Korean, Russian, French, German, Italian and Spanish. Best of all, through this new document you will be able to share it with your colleagues, your relatives, your friends and the government officials who we count on to provide the funding that will make the ILC a reality.

-- *Barry Barish*



The ILC will be the road to discovery.