

Norbert R. Holtkamp
2575 Sand Hill Rd.
Menlo Park, CA 94025
Norbert.Holtkamp@SLAC.STANFORD.EDU

Curriculum Vitae for Norbert Holtkamp



Resume

Norbert Holtkamp

**Associate Laboratory Director, Accelerator Directorate,
SLAC National Accelerator Laboratory**

I have an M.S. equivalent degree in physics from the University of Berlin and a Ph.D. in physics from the Technical University in Darmstadt, Germany. My research interests include Fusion, high-energy colliders, linear accelerators, storage rings, synchrotron radiation and neutron sources, and accelerator-based neutrino physics. I have served on a variety of US Department of Energy (DOE) and National Science Foundation review committees dealing with technical, cost schedule and planning issues on Linear Colliders, Neutrino Factories and Neutrino beams, Synchrotron Radiation and XFEL designs, as well as high energy colliders. I have served or do serve on several program and advisory boards (GSI+DESY (Germany), KEK/JAEA (Japan), FNAL+JLab (USA)) and was a member of the HEPAP sub-panel on long-range planning in high-energy physics in 2001/2002. I was also a member of the International Technology Recommendation Panel (ITRP) which recommended the superconducting technology as the preferred choice worldwide for a Linear Collider in 2004. I was a member of the advisory panel for High Energy Physics at the National Academy of Science (EPP 2010). I was the chair of the Particle Accelerator Conference in 2005, and the Linac Conference Chair in 2006. In June 2008 I received the Gersh Budker prize of the European Physical Society for recent, significant contribution to the accelerator field referring to the success of the SNS project. I am presently a member of various advisory bodies for other national fusion or accelerator based science projects.

Since April 2006 when I was nominated to my present position, I have been working in Fusion which was a new research field for me. The ITER organization, a partnership between seven members, EURATOM, China, India, Japan, Korea, Russia and the USA, comprises a construction project with a duration of approximately ten years and worth about ten billion Euro plus twenty years of operation for approximately another five billion Euro. As the PDDG I am responsible for the technical management of the construction of the worlds largest Tokamak and one of the largest science projects in the world. Over the last four years I have been leading the senior management as well as the build-up of the international organization which had ten people in 2006 and today represents a new, fully functional international organization with more than 420 directly employed people, more than 150 contractors and seven remote organizations within the various partner countries. ITER started on a green field site in the south of France near a CEA laboratory. Recruitment of the staff as well as tendering of contracts is done on a worldwide basis. Between the different countries, the uniqueness of ITER is the cost and procurement sharing which is 90% "In Kind" and adds significantly to the complexity of the project management. I am also responsible for the technical coordination and integration of the parties'

contribution. In that capacity I visit regularly all partner countries and interface with government officials, the local institutions responsible for the contribution as well as their industries. ITER itself is a Nuclear Facility and is licensed as such, which is part of my management responsibility. The civil construction on the ITER site has started and excavation will begin in a few months. Over the last three years I oversaw the preparation of the design as well as the application for the construction permit, which the ITER organization has received in 2008.

Before ITER, since January 2001, I have served as the director of the Accelerator Systems Division for the Spallation Neutron Source (SNS) at Oak Ridge National Laboratory (ORNL), which is a Pulsed Neutron Source based on a 1 GeV H- largely superconducting linac and an accumulator ring that can provide 1-3 MW of average beam power. The facility construction was finished in May 2006, 2 month ahead of schedule and approximately 10 M\$ under budget. I coordinated and lead the design and construction of the SNS accelerator among five participating DOE laboratories (Lawrence Berkeley National Laboratory (LBNL), Los Alamos National Laboratory (LANL), Thomas Jefferson National Accelerator Facility (TJNAF), Brookhaven National Laboratory (BNL) and ORNL. The total cost of SNS is approximately 1.4 Billion USD, and the accelerator comprises approximately half of that. Within that scope of work I was responsible for the management of cost, schedule and technical coordination. At the peak of the construction approximately 500 people worked under my direction from which about 150 were staged at Oak Ridge and the rest were distributed at the partnerlabs. As the design and the construction of SNS equipment finished and the partnerlabs rolled off, I lead the installation and commissioning of the SNS accelerator systems

Before my assignment to SNS (1992-1998), I was a senior staff member at DESY (Hamburg, Germany). In that position I was responsible for operation of the injector linacs and for a research and development program for a normal conducting linear collider (S-Band), which included the construction and operation of a 400 MeV electron test linac. During the program this technology was transferred to industry (ACCEL), and several linacs of this type are presently in operation or under construction, all built by industrial partners. After joining the Fermi National Accelerator Laboratory (FNAL) in 1998, I led a multi-laboratory study on the technical feasibility of an intense neutrino source based on a muon storage ring and was involved in the commissioning of the Main Injector at Fermilab.

Curriculum Vitae

Name: Norbert R. Holtkamp
Place of Birth: Fürstenau, Germany
Nationality: German; U.S. Permanent resident

Private Status

Marital status: married
Maria Holtkamp
(profession: Architect)
Two children: Philipp,
Alexander,
Languages: English, German
Hobbies: Jogging, sailing, reading.

Primary Education

1982-1987 Theses of Diploma in Physics, Freie
Universitaet of Berlin
1988-1990 PhD in Physics, Technische
Universitaet Darmstadt

Professional Experience

1987-1988 Berliner Elektronenspeicherring
Gesellschaft für
Synchrotronstrahlung (BESSY
GmbH), research staff
1990-1992 Research Associate, TU Darmstadt
1991 Four-month Sabbatical leave to
Stanford Linear Accelerator Center,
SLAC
1992-1998 Deutsches Elektronen Synchrotron
(DESY), Hamburg; Head of the
Research Group responsible for the
development of a normal conducting
Linear Collider concept (S-Band
Linear Collider) at DESY. Later,
Department Head for linear
accelerators
1998-2000 Senior staff member at Fermi National

	Accelerator Laboratory (FNAL), Muon Collider/Neutrino factory research, Linear Colliders, VLHC, main Injector commissioning and operation
1999	At Fermilab commissioned the first Multi-laboratory Study on "The Feasibility of a Neutrino Source Based on a Muon Storage Ring"
2001-2006	Spallation Neutron Source at Oak Ridge National Laboratory, Division Director, Accelerator Systems
2006-today	ITER Organization, Cadarache, Principal Deputy Director General. Accredited Diplomat, CMD (Chef de Mission Diplomatique)

Other Activities

1999- today	Several DOE reviews
2001	High Energy Physics Advisory Panel (HEPAP)
2002	American Physical Societies "Robert Wilson Prize" Selection Committee Chair
2003	Department of Energy Technical Advisory Panel for 20-Year Planning in Basic Energy Science
2004	International Technology Recommendation Panel
2005	Elementary Particle Physics 2010 (EPP2010), National Academy of Science
2005	Chair of the Particle Accelerator Conference (PAC'05)
2006	Chair of the Linac Conference '06
2009	Member of the Helmholtz evaluation panel for Fusion

Society Membership and Distinctions

since 1999	Member of the American Physical Society, since 2007 Fellow of the APS
since 2001	Member of IEEE, since 2005 Senior Member IEEE
October 2004	Award for outstanding technical leadership in the Science and Technology area from Oak Ridge National Laboratory
since 2006	Member of European Physical Society (EPS).
February 2006	EPS-AG Gersh Budker Prize

