

Curriculum Vitae

Name Richard Jacobsson
Date of birth 4 March 1969
Nationality Swedish
Languages Swedish, English, French, Italian
Highest degree Doctor of Philosophy in Physics, Stockholm University, 1996
Current position Senior Staff Physicists, CERN



Current research responsibilities

SHiP experiment

- Co-responsible for the Comprehensive Design Study
- CERN Local Contact person

LHCb experiment

- Project leader of the timing, readout and trigger control, and online event management
- Responsible for the online luminosity monitoring
- Responsible for the framework for global operational control and LHC data exchange

Positions

- 2011 - Senior staff physicist, CERN
- 2000 – 2010 Staff physicist, CERN
- 1998 – 2000 Research fellow, CERN
- 1996 – 1997 Post-doc at Stockholm University permanently based at CERN
- 1992 – 1996 Doctorate candidate at Stockholm University
- 1991 – 1992 Associate at Stockholm University based at CERN

Principal research activities and roles

- 2016 - Co-responsible for the SHiP experiment Comprehensive Design Study
- 2014 – 2016 Co-responsible for the preparation of the SHiP Technical Proposal and scientific review
- 2014 - **CERN Local Contact person for the SHiP experiment**
- 2013 - Proposal of the Search for Hidden Particles (SHiP) experiment (one of the principal proponents)
- 2013 - Readout and LHC communication system for Beam Gas Vertex monitor for LHC emittance measurement
- 2013 – 2014 Readout system for the LHCb Forward Shower Counters

- 2009 - 2014 **Coordinator of the operation of the LHCb experiment**
- 2008 - 2014 Readout control system for the LHCb Upgrade
- 2007 - 2009 **LHCb Deputy Commissioning coordinator**
- 2006 - LHCb beam, background, and online luminosity monitoring
- 2005 - LHCb framework for global operational control and data exchange with LHC
- 2005 - 2015 LHCb experiment protection system
- 2000 - **Project leader for LHCb timing, readout control, and online event management**
- 1998 - 2001 $e^+e^- \rightarrow ZZ$ production cross-section at LEP2 with the DELPHI experiment
- 1997 - 2000 DELPHI Online data quality monitoring
- 1996 - 1998 Upgrade of DELPHI global readout system
- 1996 - 1997 DELPHI HPC operation
- 1995 - 1996 Missing momentum resolution and bby events as Hvv background in the DELPHI experiment (PhD)
- 1992 - 1996 Higgs search at LEP1 in Hvv channel with the DELPHI experiment (PhD)
- 1992 DELPHI HPC ageing test beam
- 1991 – 1992 DELPHI HPC calibration and efficiency analysis using MIPS
- 1991 Comparison of hadronic shower simulation packages CASCADE and GHEISHA for DELPHI (Diploma)

Teaching, public relations and outreach

- Awards**
 - 2016 Award "Sant'Alfio fonte di pace", Acireale UNESCO Club, Sicily, Italy
 - 2007 European Physical Society Outreach Prize
- 2011 - CERN Staff Association ambassador for the Swedish delegates to the CERN Council
- 2005 Graphical design and authoring of LHCb brochure and posters
- 2000 - 2006 Responsible for LHCb outreach
- 1997 - 1998 Development of particle physics education CD-ROM "A Keyhole to the Birth of Time", J. Gillies & R. Jacobsson
- 1998 Organized and lectured at the interdisciplinary summer school organized by the association "Physique Sans Frontières" in Sarajevo during the ex-Yugoslav conflicts
- 1997 - CERN National Pilot for media and VIP visits and events
- 1993 - Initiator of the first national physics teachers program at CERN and responsible for the longest running annual program ("Swedish Teachers at the Frontiers of Science").
- 1992 - CERN Official Guide

Conference talks

- 2015 (Talk) "A new facility at the CERN SPS for hidden sector searches and ν_τ physics", NuDark2015, Munich, Germany, Dec 2015.
- (Talk) "Prospects with the LHCb LS2 Upgrade", Large Hadron Collider Physics, St Petersburg, Russia, 31 Aug 2015.
- (Talk) "A new facility at the CERN SPS for hidden sector searches and ν_τ physics", 17th Lomonosov Conference, Moscow, Russia Aug 2015.
- 2014 (Talk) "An experiment to search for Hidden Particles at the SPS", Discovery Physics at the LHC, Kruger, South Africa, Dec 2014.
- (Talk) "Prospects with the LHCb LS2 Upgrade", Discovery Physics at the LHC, Kruger, South Africa, Dec 2014.
- (Talk) "An experiment to search for Hidden Particles at the SPS", Hadron Structure and QCD 2014 conference, Gatchina, Russia, Jun 2014.
- (Talk) "Heavy Ion Physics at LHCb", Hadron Structure and QCD 2014 conference, Gatchina, Russia, Jun 2014.
- 2013 (Talk) "Search for Heavy Neutrals Leptons at the SPS", 5th High Energy Physics in the LHC Era, Valparaiso, Chile, Dec 2013.
- (Talk) "Onia production in pA and Ap collisions at LHCb", Hard Probes 2013 conference, Cape Town, South Africa, Nov 2013.
- (Talk) "The LHCb Online luminosity monitoring and automated luminosity control", 14th ICALEPCS conference, San Francisco, USA, Oct 2013.
- (Talk) "The LHCb Upgrade", Large Hadron Collider Physics, Barcelona, Spain, May 2013.
- 2012 (Talk) "Performance of the LHCb detector during the LHC proton runs 2010 – 2012", IEEE NSS/MIC/RTSD Conference, Los Angeles, USA, Oct 2012.
- 2009 (Talk) "LHCb Readiness for Physics" at Aspen Workshop on Physics at the LHC Era, Feb 2009.
- 2007 (Talk) "Building Integrated Control Systems for Electronics Boards" at the IEEE Real-Time Conference, Fermilab, USA, May 2007.
- 2006 (Talk) "Beam Phase and Intensity Monitor for LHCb", 12th Workshop on Electronics for LHC experiments, Valencia, Spain, Sep 2006.
- 2005 General Chairperson of IEEE Real-Time Conference 2005 and chairperson of the Scientific Committee, Stockholm, Sweden.
- 2003 (Talk) on "Driving the LHCb Front-End Readout" at the 13th IEEE conference on Real Time applications, Montreal, Canada.
- 2002 Talk on "Controlling Slowly the LHCb Fast Control" at the 3rd LHC JCOP workshop, CERN, June 2002.
- 2001 (Talk) "Use of Network Processors in the LHCb Trigger/DAQ system" at the 7th Workshop on Electronics for LHC experiments, Stockholm, Sweden.
- (Talk) "LHCb Timing and Fast Control system", 7th Workshop on Electronics for LHC experiments, Stockholm, Sweden.
- 2000 (Talk) "CERN outreach activities and the Particle Physics Education CD-ROM", Annual Hellenic Physics Association conference on physics pedagogy and topics and tools in physics teaching, Zakynthos, Greece,

Feb 2000

- 1999 (Talk) on the measurement of the ZZ production in DELPHI at the Electroweak Physics Winter Conference held in Lake Louise, Alberta, Canada.
- 1995 (Talk) "Optimization of neural networks and application in the search for the Higgs boson", SPIE conference "Applications and Science of Artificial Neural Networks", in Orlando, Florida, USA.
- 1994 (Talk) "Development of neural networks for the search for the Higgs boson", 3rd Workshop on neural networks, "From biology to High Energy Physics", in Isola d'Elba, Italy.

Lectures and list of publications not included