

Sergey Barsuk : CURRICULUM VITAE

Laboratoire de l'Accélérateur Linéaire (LAL, www.lal.in2p3.fr), IN2P3-CNRS & Paris-Sud University, bldg.208, 91898 Orsay France; CERN, CH-1211, CERN-Meyrin, bldg. 11-1-002.

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Degrees

1997 Institute for Theoretical and Experimental Physics, **Ph.D.**

Ph.D. thesis : “Study of D0-meson decays into final states with two kaons” (ARGUS experiment)

2014 Paris-Sud University, **HDR** (Habilitation to direct the research)

HDR thesis : “Construction of the electromagnetic calorimeter detector and study of charmonium production using hadronic final states in the LHCb experiment”

Position

1997-1999 ITEP, Moscow, Researcher

1999-2006 ITEP, Moscow, Senior Researcher

2003-2005 CERN, Geneva, Scientific Associate

2005-2006 LAL, Orsay, Foreign visitor

2006-2016 LAL, Orsay, Senior Researcher (Chargé de Recherche 1 cl.)

2016- LAL, Orsay, Research Director (Directeur de Recherche 2 cl.)

Teaching

1997-2000 Moscow Institute of Physics and Technology, Master students, Particle physics, 120 h/year

2007-present Kyiv University-KINR, or Kharkiv University-KIPT, Bachelor and Master students, High energy physics, 10 h/year

2007-present Pedagogical team and organisation committee of the TESHEP school, <http://events.lal.in2p3.fr/TES-HEP/index-SummerSchools.html>), students of Master and Ph.D. level

2009-2012, 2017 Lecture series « Instrumentation for high energy physics », TESHEP summer school, 3-5h/year (published lectures)

2010-2013 Lecture series « Instrumentation » for students of Master 2 NPAC at Paris-Sud University, 15h/year

2015 Lecture series « Flavour physics », TESHEP summer school, 3h

2017 Lecture series « Instrumentation for high energy physics » - 4h, « Flavour physics » - 5h, CQUPT University.

Administration related activities

2007-2012 and 2014-present

Jury for Scholarships of the French Embassy in Ukraine at the Center for Scientific and University cooperation.

2007-2011 Member of the laboratory Council of LAL.

Expertise

- Flavour physics, data analysis
- Instrumentation for high energy physics: gaseous detectors, electromagnetic calorimeter, photon detectors
- R&D on instrumentation, nuclear physics and radiotherapy using accelerator beams

Experiments/projets

ARGUS (DESY), high energy physics (1993-1995)

HERA-B (DESY), high energy physics (1994-1999)

LHCb (CERN), high energy physics (1999-present)

LEETECH (LAL), experimental platform (2012-2017)

RD51 (CERN), gaseous detectors (2013-present)

PRAE (LAL-IPN-IMNC), R&D for nuclear physics, radiotherapy and instrumentation with electron beams (2015-present)

Research related activities

- 2007 Review panel for design of the ECAL for the ALICE experiment at CERN
- 2007-present Pedagogical team and organisation committee of TESHEP (Trans European School for High Energy Physics, <http://events.lal.in2p3.fr/TES-HEP/index-SummerSchools.html>), students of Master and Ph.D. thesis level
- 2010-present *Internal referee* of the LHCb experiment
- 2012-2013, 2016 Topic convener of the IEEE conference (selection of contributions, organisation of the sessions), « Photon detectors » and « Radiation imaging detectors »
- 2012-present *Reviewer* at the IEEE conference
- 2013 Organisation of the workshop “New results on charmonium production and decays” at LAL, March 6-8, <http://events.lal.in2p3.fr/workshop-charmonium/>
- 2013 Organisation of the workshop “LAL-Ukraine workshop on instrumentation developments” at LAL, May 22-24, <https://indico.lal.in2p3.fr/event/2125/timetable/#20130522>
- 2014 Organisation of the workshop “French-Ukrainian workshop on instrumentation development for high energy physics” at LAL, October 1-3, <http://events.lal.in2p3.fr/French-Ukrainian-Workshop/>
- 2014 Organisation of the conference “90 Years Anniversary of Georges Charpak Birth (Bringing Nations Together Through Science)” at the Polytechnic University of Lviv, July 21, <https://indico.cern.ch/event/331478/overview>
- 2014-present *Reviewer* of the JHEP journal
- 2015-present *Reviewer* of the JINST journal
- 2015 *Referee* of the Ph.D. thesis of Liang Zhong (Tsinghua University, China)
- 2015 *Internal referee* of the Technical Proposal of the SHIP projet at CERN, chapter Particle Identification
- 2015 Organisation of the workshop “New Possibilities in Physics of Quarkonia” at the Institute Henri Poincaré, September 24-25, <http://indico.in2p3.fr/e/onia2015/>
- 2015 Organisation of the workshop “French-Ukrainian workshop on instrumentation development for high energy physics” at LAL, October 15-16, <http://french-ukrainian-workshop-2015.lal.in2p3.fr/>
- 2016 Organisation of the workshop “French-Ukrainian winter workshop on Medical Physics” in Kyiv, Ukraine, March 3-4, <http://science.univ.kiev.ua/french-ukrainian/index.html>
- 2016-present International Advisory Committee of the NDIP conference
- 2016 Organisation of the workshop “French-Ukrainian workshop on instrumentation development for high energy physics” at LAL, October 19-21, <http://french-ukrainian-workshop-2016.lal.in2p3.fr/>
- 2017 Organisation of the workshop “Medical physics and imaging” in Kharkiv, Ukraine, April 20-21, <http://fcuw.univer.Kharkov.ua>
- 2017 Organisation of the workshop “Charmonium production at LHCb” at CERN, June 16, <https://indico.cern.ch/event/640756/>
- 2017 Organisation of the workshop “French-Ukrainian workshop on instrumentation development for high energy physics” at LAL, November 6-8, <http://french-ukrainian-workshop-2017.lal.in2p3.fr/>

International cooperation

- 2014-present Responsible of the relations with Ukraine at Paris-Sud University
- 2014-2015 Project manager of the PICS project (France-Ukraine), « Development of the instrumentation for experiments at accelerators, beam monitoring and other applications »
- 2015-present Director (France) of the International Associated Laboratory (France-Ukraine), « Instrumentation developments for experiments at accelerator facilities and accelerating techniques »
- 2017-present Contact person for international relations at LAL for Paris-Sud University

Research related administration, responsibilities

- 1999-2002 Coordinator of the test beam for the electromagnetic calorimeter of the LHCb experiment at CERN
- 2002-2005 Coordinator of the installation and integration of the electromagnetic calorimeter for the LHCb experiment at CERN
- 2000-2006 Group leader deputy of the LHCb-ITEP group
- 2012-2017 Project leader of the LEETECH project (CERN – IFRU – LAL – Université de Kiev)
- 2013-present LAL contact of the IN2P3 network « gaseous detectors »
- 2013-present Group leader of the RD51-LAL group
- 2014-2016 Project manager of the PICS project (France-Ukraine)
- 2015-present Director (France) of the International Associated Laboratory LIA (France-Ukraine)

2015-present Project coordinator of the PRAE project (IMNC – IPNO – LAL)

2018-present Group leader of the Instrumentation group at LAL

Supervising of Ph.D. students

V. Iakovenko, co-chaired thesis LAL/ Paris-Sud University - KINR/ National University of Kyiv, Ph.D. thesis defended in 2010.

M. Teklishyn, Ph.D. thesis defended in 2014.

V. Krylov, co-chaired thesis LAL/ Paris-Sud University - National University of Kyiv, Ph.D. thesis defence foreseen in 06/2018.

A. Usachov, Ph.D. thesis defence foreseen in 2019.

Publications : More than 450 articles in peer-reviewed journals (mostly publications signed by large collaborations).