

Curriculum Vitae

RNDr. Jiří Kroll, Ph.D.

Personal data

Permanent address: Místecká 451, Prague 9, ZIP: 19900, Czech Republic

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Nationality: Czech

Education and Academic Qualification

2019 – present

Research Scientist, Department of Detector Development and Data Processing, Division of Elementary Particle Physics, Institute of Physics of the Czech Academy of Sciences, Czechia

2015 – 2018

Postdoctoral Researcher, Department of Detector Development and Data Processing, Division of Elementary Particle Physics, Institute of Physics of the Czech Academy of Sciences, Czechia

2013 – 2014

Postdoctoral Research Scholar, Department of Physics, College of Sciences, North Carolina State University, USA

2009 – 2013

Postgraduate study at Faculty of Mathematics and Physics, Charles University, Czech Republic; *Branch of study*: Nuclear Physics; *Educational attainment*: Ph.D. (Doctor of Philosophy)

Work practice since 2015

2016 – present

Coordinator of the ATLAS ITk strip testbeam and irradiation group formed within the ATLAS Inner Tracker project under the WBS activity 2.2.11

- organization of the testbeam and irradiation campaigns at DESY II Testbeam Facility, CERN SPS Testbeam Facility, CERN IRRAD proton irradiation facility, and FNAL proton irradiation facility
- design and production of equipment necessary for successful operation: automatic moving stages, testbeam cooling box, DUT holders for testbeam and irradiation campaigns
- continuously covering testbeam shifts since 2015

2015 – present

Postdoctoral Researcher and Research Scientist at the Institute of Physics of the Czech Academy of Sciences

- measurement of mechanical properties of silicon strip sensors and detectors (incl. readout electronics) on OGP SmartScope CNC 500 metrology station
- measurement of electrical characteristics of silicon strip sensors by using probe station Karl Suss PA200, probe station Tesla 200mm, environmental chamber Binder MK 53, and MP Dry Storage Cabinet I T05
- wire bonding of a wide spectrum of samples on the wire bonding station F&S Bondtec Series 53 - silicon strip and LGAD sensors, silicon testing structures, semiconductor detectors, special components - collaboration with other other research groups
- analysis of the obtained data in C/C++, ROOT, Python
- outreach activities within the events Open Doors Day, Researchers Night, Science to Go

45 **2020**

46 Local convener of the 40th International Conference on High Energy Physics, Track “Operation, Performance and Upgrade of Present Detectors”, July 30 - August 5, 2020, Prague, Czech Republic

48 **2013 – 2014**

49 Postdoctoral Researcher at Los Alamos National Laboratory (LANL), New Mexico, USA – measurement of nuclear reactions within the DANCE collaboration, data analysis (C/C++, ROOT, OriginLab, Linux Bash shell), presentation of results at the international conferences and workshops

52 **2008 – 2014**

53 Assistant at Faculty of Mathematics and Physics, Charles University in Prague, Czech Republic – teaching of students in the nuclear physics laboratory

55 **2011**

56 Member of the Local Organizing Committee of the “Third International Workshop on Compound Nuclear Reactions and Related Topics”, September 19-23, 2011, Prague, Czech Republic

58 Awards

59 **2020**

60 The Otto Wichterle Award to promising young scientists of the Czech Academy of Sciences - category of Mathematics, Physics and Earth Sciences

62 Scientific visits (longer than 2 weeks)

63 **2012 – 2014**: LANL, New Mexico, USA (DANCE collaboration, 13 months)

64 **2015 – 2023**: CERN, Geneva, Switzerland (ATLAS collaboration, 35 weeks)

65 **2015 – 2023**: DESY, Hamburg, Germany (ATLAS collaboration, 35 weeks)

66 Skills and knowledge

67 **Linguistic knowledge**: Czech language – native language, English language – advanced knowledge, German language – basic knowledge

69 **Computer skills:**

70 Operating systems: Linux (advanced user), MS Windows (user)

71 Programming languages: C/C++, Python, Bash Shell

72 Development applications: CERN ROOT, LabVIEW, LaTeX, Gnuplot, OriginLab

73 Servers, databases and web: Apache, PHP, MySQL, JavaScript, HTML

74 **Driving license**: category “AM, A1, A2, B1, B” (Czech Republic, USA)

75 Other qualification

76 Author or co-author of cca 475 scientific publications (ORCID ID: 0000-0001-6215-3326, ResearcherID: C-8465-2018, Scopus Author ID: 57211753453) focused on detector development, particle and nuclear physics, presentation of scientific results at international conferences, collaboration with leading research institutions in Europe (CERN, Geneva, Switzerland) and USA (Los Alamos National Laboratory, New Mexico, USA).

80 Individual interests

81 Research and development of particle detectors, nuclear and subnuclear physics, statistics and probability, development of web applications, sport (ice hockey, soccer, floorball, hockey-ball, swimming), travelling, music, reading.

85 March 19, 2023

86 DESY, Hamburg, Germany

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Jiří Kroll