

Curriculum Vitae

08.02.1969 Born in Gorlice, Poland

Education:

1976 - 1983 Primary School in Kryg, Poland

1983 - 1987 Secondary School V LO in Cracow, Poland

1993 Master degree in nuclear physics, Jagiellonian University, Poland

1998 Doctorate in nuclear physics, Jagiellonian University, Poland

2005 Habilitation in nuclear physics, Jagiellonian University, Poland

2011 Scientific title of professor of physics

Employment:

1992 Diploma scholarship at the Research Center Juelich in Germany

1993 - 1994 Assistant at the Physics Institute of the Jagiellonian University

1994 - 1998 PhD Student at the Jagiellonian University (including 30 months scholarship at the Research Center Juelich in Germany)

1999 - 2000 Assistant-lecturer at the Jagiellonian University

2001 - 2003 Postdoc in the Research Center Juelich in Germany

2004 - 2004 Research visit at the HiEnergy Laboratory, Irvine, USA (1 month)

2004 - 2005 Senior assistant at the Jagiellonian University

2005 - 2007 Associate professor at the Jagiellonian University

since 2007 Extraordinary professor at the Jagiellonian University

04-09.2017 Head of the Nuclear Physics Department at the Jagiellonian University

since 10.2017 Head of the Cluster of Nuclear Physics Departments at the Jagiellonian University

since 10.2017 Head of the Department of Experimental Particle Physics and Applications at JU

since 2019 Full professor at the Jagiellonian University

Other Appointments:

since 2020 Member of the Committee on Medical Physics, Radiobiology and X-Ray Imaging, Polish Academy of Sciences

2015 - 2017 Elected member of the Scientific Committee SPSC at CERN

2011 - 2017 Head of the Introductory Physics Laboratory in the Institute of Physics (JU)

2008 - 2017 Chair of the Committee of the Physics Olympic Competitions in Lesser Poland District

2008 - 2014 Board member of the international KLOE-2 collaboration (~70 scientists)

2002 - 2010 Spokesperson (scientific coordinator) of the international experiment COSY-11 (~30 scientists)

2012 - 2014 Member of the Expert Panel of the Polish National Science Centre

since 2011 Founder and coordinator of the Jagiellonian-PET interdisciplinary research group (40 scientists)

since 2005 Deputy spokesperson of the international experiment WASA-at-COSY (~200 scientists)

since 2002 Chair of the scientific and organizing committees of 17 international conferences and symposia

Awards:

1999 Laureate of the Foundation for Polish Science in the START programme

1999 Prime Minister award for the doctoral dissertation

2000 Laureate of the Henryk Niewodniczanski Prize awarded by Institute of Physics (JU)

2009 Gold Medal for the invention of the novel Positron Emission Tomography at The World Exhibition on Innovation, Research and New Technologies, Brussels Innova 2009

2009 Minister of Science and Higher Education diploma for inventions in Positron Emission Tomography

2010 Laureate of the Foundation for Polish Science in the International PhD (MPD) programme

2016 Award of the Minister of Science and Higher Education for outstanding achievements in educational and scientific supervision

2017 Laureate of the Foundation for Polish Science in the TEAM research programme

2019 Laureate of the Silla Sanford Award at the University of Los Andes, Colombia

2019 Silver Cross of Merit awarded by the president of Poland.

Miscellaneous:

- Supervision of 25 completed Ph.D. theses; 12 Ph.D. theses are in progress

- Inventor or co-inventor of 42 international (USA, Europe, Japan) patents in medical diagnostics and homeland security



- In total 390 publications listed in Web of Science: citations > 5600; h-index=44, according to <https://scholar.google.pl>: citations > 11000; h-index=58
- Principal investigator of grants with total funding of more than 35 mln PLN (~7.7 mln Euro)
- Over 210 presentations (including over 130 invited) at international conferences and invited seminars
- Research stays and visits in foreign scientific institutions (Colombia, Germany, India, Italy, Japan, Portugal, Sweden, Switzerland, USA) with total duration of about 9 years
- Guest editor of 15 volumes in Acta. Phys. Pol. A and B, Bio-Algorithms and Med-Systems, Acta Phys. Slovaca, American Institute of Physics Conf. Proc., Schriften des FZ-Juelich Matter and Materials

PAWEŁ MOSKAŁ

Succinct CV

The subject of scientific interest and research work of prof. Moskał is nuclear physics, particle physics and the application of physics in medicine and public security. Professor Moskał leads an interdisciplinary team of over forty researchers studying phenomena in which the energy turns into matter and the phenomenon of the annihilations of particles into photons. He is searching for new types of matter as well as natural phenomena that may break fundamental symmetries, such as the reflection in space or the reversal in time. He developed a new method of non-invasive imaging of the human interior based on plastic detectors and in-vivo imaging of the positronium properties in the living organisms, opening new possibilities for cancer diagnosis.

Paweł Moskał, Ph.D. is an inventor of positron emission tomography based on plastic scintillators and method of in-vivo pathology based on positronium imaging. He is Professor of physics and the head of the Cluster of Nuclear Physics Departments and the head of the Department of Particle Physics and Applications at the Jagiellonian University in Cracow, Poland. He won the Prime Minister's award for his doctoral dissertation in 1999 and a Gold Medal for the invention of the matrix device for Positron Emission Tomography at The World Exhibition on Innovation, Research and New Technologies at Brussels Innova 2009. Prof. Moskał has co-authored 18 patent in Europe, USA and Japan, and more than 350 scientific articles in the field of nuclear and particle physics and positron emission tomography. In the years 2015-2017 he was a member of the SPSC Scientific Committee at CERN, and since 2020 he is a Member of the Committee on Medical Physics, Radiobiology and X-Ray Imaging, Polish Academy of Sciences. At present he is leading the J-PET collaboration: an international and interdisciplinary research team at the Jagiellonian University conducting research and development of a new imaging device based on plastic scintillators. This research aims at the construction of a cost effective portable and modular total-body PET for experiments with positronium in basic physics, biophysics and medical diagnostics, e.g. for studies of discrete symmetries in the decays of positronium, the development and tests of multi-photon imaging, and the study of properties of positronium atoms in living organisms, opening new perspectives to study the dynamics of metabolism and tissue pathology in-vivo in the whole human body simultaneously.

Prof. Moskał was coordinator of the COSY-11 international collaboration conducting experiments on meson production at the Cooler Synchrotron COSY at FZ-Jülich in Germany and deputy-coordinator of the WASA-at-COSY experiment, which comprises about 150 physicists testing fundamental symmetries in nature by means of the decays of mesons. He is also a member of the KLOE-2 collaboration conducting experiments at the electron-positron collider DAFNE in Italy. The KLOE-2 experiments include tests of quantum mechanics and searching for phenomena beyond the standard model of particle physics. Prof. Moskał chaired the scientific and organizing committees of seventeen international symposia and workshops devoted to fundamental and applied physics and served as the (co-)editor of the proceedings books.