

Professional Curriculum Vitae (April 11, 2021)

Prof. RNDr. Peter MOCZO, DrSc.

Academician of the Learned Society of Slovakia



Year and place of birth: 1956 Košice

Affiliation: Geophysical Institute (Earth Science Institute since 2015), Slovak Academy of Sciences – since 1980, Faculty of Mathematics, Physics and Informatics, Comenius University in Bratislava (FMPI CUB) - since 2001

Education, academic titles and degrees: 1980: MSc. in Physics, Charles University in Prague (CUP) • 1980: RNDr., CUP • 1988: CSc. (equiv. to PhD.) in Geophysics, CUP • 1996: Docent (equiv. to Assoc. Prof.) in Geophysics, Comenius University in Bratislava (CUB) • 1999: DrSc. (the highest scientific degree) in Geophysics, CUP • 2002: Professor of Physics, CUB

Current position: Professor of Physics • Responsible for undergraduate and graduate study programs in Geophysics • Member of the Scientific Council of CUB and FMPI CUB

The most important professional responsibilities

President of the Learned Society of Slovakia • Chairman of the Slovak Commission for Scientific Degrees • Vice Rector of the Comenius University for Science and Postgraduate Study (2015-2019) • Head, Department of Astronomy, Physics of the Earth, and Meteorology (2004-2020)

Visits abroad

a) main visits

Canada, Edmonton, Department of Physics, University of Alberta, 1990-1992, 2 years,

Visiting scientist

Japan, Kyoto, Disaster Prevention Research Institute, Kyoto University, Program promoting the COE (Center of Excellence) research on natural disaster science, 1997-1998, 4 months, *Visiting Professor*

USA, Santa Barbara, Institute for Crustal Studies, University of California at Santa Barbara, 2000, 4 months, *Visiting Scientist*

France, Grenoble, Laboratoire de Géophysique Interne et Tectonophysique, Université Joseph Fourier, 2004, 4 months, *Professeur invité*

b) other visits

France, Université Joseph Fourier, 1989, 1 month, Italy, Rome, Istituto Nazionale di Geofisica, 1990, 1993, 1 month; Canada, Edmonton, 1995, 1996, 2 months; Greece, Thessaloniki, ITSAK, 2007, 2008, 1 month; plus more than 35 visits shorter than 1 month based on invitation or international projects in France, Germany, Greece, Italy, Japan, Mexico and Spain

The most important results

Contribution to numerical modelling of seismic waves and earthquake ground motion in structurally complex media, and site effects during earthquakes. Creation and coordination of a team which belongs to the leading teams in the finite-difference modelling of seismic motion.

Foundation of theoretical and computational seismology in Slovakia. Foundation of the new department of seismology in the Geophysical Institute, Slovak Academy of Sciences. Foundation of seismology group at CUB. Coordination of teams which built the National network of seismic stations and Local seismic network Eastern Slovakia, and teams which performed and defended seismic hazard analyses of the Slovak Nuclear Power Plant sites at the review missions of the International Atomic Energy Agency in 1998.

Monographs

Moczo, P., Kristek, J., Gális, M. 2014. The Finite-Difference Modelling of Earthquake Motions: Waves and Ruptures. *Cambridge University Press*, 365 pp.

Moczo, P., Kristek, J., Halada, L., 2004. The Finite-Difference Method for Seismologists. An Introduction. *Comenius University, Bratislava*. 158 pp.

Moczo, P., 1998. Introduction to Modeling Seismic Wave Propagation by the Finite-Difference Method. Lecture Notes. *Kyoto University*. 108 pp., Japonsko

Chapter in a monograph

Moczo, P., Robertsson, J. O. A., Eisner, L. 2007. The finite-difference time-domain method for modeling of seismic wave propagation. In: *Advances in Wave Propagation in Heterogeneous Earth*, 421-516, R.-S. Wu and V. Maupin, eds., *Advances in Geophysics* Vol. 48, R. Dmowska, ed., *Elsevier – Academic Press*, 96 pp.

Chapters in science-popularization books

Moczo, P., 2007. Why is the Earth trembling? In: *Childrens' University also for Adults*, pp. 85-93. *PEREX, Bratislava* (in Slovak)

Moczo, P., Ševčík, S., 2012. Why do tides occur? In: *Childrens' University also for Adults*, pp. 62-73. *Petit Press, Bratislava* (in Slovak)

Journal articles

58 CC articles (1 being a 230 pp. monograph), 4 other articles

Citations (ResID R-1225-2016, ORCID 0000-0001-5276-9311)

WOS All Databases, Sum of Times Cited without self-citations 2704 h-index 28

Google Scholar 5265 h-index 36

Projects

national coordinator: FP5 EC EVG1-CT-2000-00026 SESAME, FP5 EC EVG1-CT-2001-00040 EUROSEIS-RISK, FP6 MRTN-CT-2003-504267 SPICE, FP7-PEOPLE-ITN-2008 project 238007 QUEST, NATO Linkage Grant ENVIR.LG 940714, INCO-COPERNICUS PL963311 ISMOD, INCO-COPERNICUS PL963087 COME

responsible researcher: contracts with: Commissariat à l'énergie atomique (4), France, Electricité de France (1), and CTBTO (3)

member of the scientific committee: SIGMA (CEA, EDF, AREVA, ENEL)

coordinator of subcontract: FP6 I3-026130 NERIES, FP7 NERA

responsible researcher: 3 projects APVV (Slovak Research and Development Agency), 4 bilateral projects APVV, 3 projects VEGA (Slovak Scientific Grant Agency), The Nuclear Regulatory Authority of the Slovak Republic

Scientific education and teaching

Supervision of 10 completed PhD. studies • Teaching at FMPI CUB since 1983 • Teaching at University of Vienna (Austria) in 2000-2005 • Teaching at Kyoto University in 1997, University of California at Santa Barbara in 2000, and Université Joseph Fourier, Grenoble, in 2004 • Supervisor of PhD studies in Geophysics at FMPI CUB

Honors

Gold Medal of CUB - 2019, Gold Medal of FMPI CUB - 2016, Dionyz Stur's Medal of the Slovak Academy of Sciences for Achievements in Natural Sciences 2006 • Prize of the Slovak Academy of Sciences for Infrastructure - 2006 • Premium of the Literary Fund for the 3-year scientific response - 2008 and 2011 • Outstanding reviewer of the year 2010, 2011, 2016 in *Geophysical Journal International* • Commemorative medal 60 Years of the Slovak Academy of Sciences - 2013 • Prize of the Minister of Education, Science, Research and Sport of the Slovak Republic for Science and Technology in 2013 in category Science and Technology Team of the Year • M.R. Stefanik Prize for the contribution to the Slovak-France scientific collaboration - 2015 • Premium of the Literary Fund for the book *The Finite-Difference Modelling of Earthquake Motions: Waves and Ruptures* (Cambridge Univ. Press) - 2015 • Ján Pettko Prize - 2016 • Prize of the Minister of Education, Science, Research and Sport of the Slovak Republic for Science and Technology in 2018 in category Person of Science and Technology • Stefan Kassay Prize of Excellence 2019.