

# Curriculum Vitae

**Name:** Lukáš Palatinus, Dr. rer. nat.  
**Date and place of birth:** 12.6.1977, Ústí nad Orlicí, Czechoslovakia  
**Affiliation:** Department of Structure Analysis  
Institute of Physics of the CAS, v.v.i.  
Na Slovance 2  
182 21 Praha 8  
Czechia

## Education:

1995 – 1998: BSc. degree in geology at the Faculty of Natural Sciences, Charles University, Prague. Bachelor work: *Morf – a program for plotting crystal shapes*

1998 – 2000: MSc. degree in geology, specialization mineralogy and geochemistry at the Faculty of Natural Sciences, Charles University, Prague. Diploma thesis on the topic: *Structure refinement of seladonite  $2M_1$  from the locality Mt.Ruker, Antarctica*. Supervisor: Prof. prom. geol. Milan Rieder, CSc. Thesis defended: 21. 5. 2000

2000 – 2003: PhD. degree at the University of Bayreuth, Laboratory for Crystallography, under the supervision of Prof. Sander van Smaalen. Work on the project „The Maximum Entropy Method in Superspace“. PhD. thesis *The Maximum Entropy Method in superspace crystallography*. Thesis defended: 17. 12. 2003

## Professional carrier:

1997 – 2000: Institute of Physics of the ASCR, Department of structure analysis, research assistant. Research activities: structure solution of aperiodic structures, co-development of the crystallographic computing system Jana

2000 – 2003: Oct. 2004 – Feb. 2005: University of Bayreuth, Laboratory for Crystallography, research assistant. Research activities: Application of the maximum entropy method to charge densities of periodic and aperiodic structures, development of the computer program BayMEM.

2003 – 2005: Institute of Physics of the ASCR, Department of structure analysis, research assistant. Research activities: Structure solution of complex and aperiodic structures, co-development of the crystallographic computing system Jana, applications of the charge flipping method to aperiodic structures.

2005 – 2009: Ecole Polytechnique Fédérale de Lausanne, Laboratoire de Cristallographie, scientific collaborator. Research activities: applications of the charge flipping method to periodic and aperiodic structures, development of the computer program Superflip, structure solution of complex and aperiodic structures.

Oct. 2009 – present: Institute of Physics of the ASCR, v.v.i. Senior researcher, leader of the group of electron diffraction. Research activities: application of crystallographic approaches to electron diffraction. Application of electron diffraction methods to structure determination of nanocrystals. Development of computational tools for analysis of precession electron diffraction data. Dynamical structure refinement.

**Short-term stays:**

- May 2011 – June 2011: visiting professor at Ecole Nationale Supérieure de Chimie de Lille, Lille, France. Collaboration with Pascal Roussel and Damien Jacob on structure analysis by precession electron diffraction
- March 2012: visiting professor at the laboratory CRISMAT, CNRS, Caen, France. Collaboration with Philippe Boullay on structure analysis of aperiodic systems by electron diffraction.
- April 2012: visiting professor at the laboratory UFR SPM, Université Rennes 1, Rennes, France. Collaboration with Olivier Hernandez on structural aspects of current problems of material research encountered in the laboratory.
- July 2012: visiting professor at the Institute of Physics, Université Rennes 1, Rennes, France. Collaboration with Eric Collet, Bertrand Toudic and Philippe Rabiller on structure analysis of aperiodic systems.
- Nov. 2015: visiting professor at the laboratory CRISMAT, CNRS, Caen, France. Collaboration with Philippe Boullay on structure analysis of aperiodic systems by electron diffraction

**Selected teaching activities:**

- 2007, 2009, 2011, 2015, 2017: Lectures and practical exercises during the workshops "Workshop on Structural Analysis of Aperiodic Crystals", University of Bayreuth
- 2007, 2008, 2009, 2011, 2013, 2015, 2017, 2018, 2019, 2022: Lectures and practical exercises during the summer school *The Zürich Crystallography School*, University of Zürich
- 2007: Supervisor of the diploma thesis *Charge flipping - Étude du paramètre  $\delta$* , EPFL Lausanne by Robin Pereboom
- 2010, 2012, 2016, 2018, 2020, 2022: Lectures and practicals in the course *Microscopy of materials*, Prague
- 2011, 2013, 2015, 2017, 2019, 2021: Lecturer at the BCA school of x-ray structure analysis, Durham, UK
- 2011: Lecturer at the 43<sup>th</sup> and 44<sup>th</sup> Erice School of Crystallography, Erice, Italy: lectures and tutorials on structure solution from electron and x-ray powder diffraction data
- 2018: Co-organizer and lecturer at the 51<sup>st</sup> Erice School of Crystallography, Erice, Italy: lectures and tutorials on structure solution and refinement from electron diffraction data
- 2014, 2016, 2017: Lecturer at European Crystallography Schools, Pavia, Bol, Warsaw
- 2013-2017: Co-supervisor of the PhD. Thesis of C.A.Correa on the topic of dynamical electron diffraction
- 2019: Invited lecturer at the GAIN Workshop on Structure determination of inorganic structures, Indian Institute of Technology, Kharagpur, India

**Membership in professional organizations:**

- Member of the Czech and Slovak Crystallographic Association since 1998
- Member of the Commission on Crystallographic Computing of IUCr
- Member of the Commission on Electron Crystallography of IUCr
- Member of the Commission of the Special Interest Group for Aperiodic Crystals of ECA
- Secretary of the Special Interest Group for Electron crystallography of ECA

**Awards and fellowships:**

- 2009-2014: Fellowship J. E. Purkyně awarded by the Czech Academy of Sciences
- 2009: Erwin Felix Lewy-Bertaut Prize of the European Crystallographic and Neutron Scattering Associations
- 2017: Award of the Fund Neuron for the Support of Science for young scientists
- 2017: Award of the Czech Academy of Sciences for outstanding research results – leader of the team
- 2017: EMS Outstanding Paper Award – first author of the paper
- 2022: Award of the Czech and Slovak Mineralogical Association for significant achievements in microscopy