

PERSONAL INFORMATION

Family name, First name: **Čermák, Petr**
Researcher unique identifier: <https://publons.com/researcher/S-6152-2016/>
<https://orcid.org/0000-0002-4176-6905>
Date of birth: 17. 03. 1986
Nationality: Czech
Personal web site: <https://cermak.science/>

• EDUCATION

2014 PhD in Physics of Condensed Matter and Materials Research
Department of Condensed Matter Physics, Charles University, CZ
Supervisor: Prof. Pavel Javorský

• CURRENT POSITION

2018 – now PostDoc / Scientific researcher in the group of Magnetic studies
Department of Condensed Matter Physics, Charles University, CZ

• PREVIOUS POSITIONS

2018 Developer of the camera recognition software. Label Design, CZ
2013 – 2018 Instrument Responsible at Three Axis Spectrometer PANDA
Forschungszentrum Jülich GmbH outstation at MLZ, Garching, Germany
2012 – 2013 PhD fellowship, Institute Laue Langevin, Grenoble, France

• FUNDED PROJECTS (as PI)

2021 – 2025 MaMBA (<https://mambaproject.cz/>), Czech Science foundation JUNIOR STAR, 1M€
2022 – 2024 AQuaMaRINe: Advanced Quantum Magnetism Research using Inelastic Neutrons
Joint funding: BTHA-JC-2022-34, MŠMT: LUABA 22048, 50 k€

• TEACHING ACTIVITIES

2023 – now Automation in Physics, Charles University, <https://cermak.science/teaching/automation/>
2020 – 2021 Programming 1, Charles University (50 students per year), <https://cermak.science/p1m/>
2018 – 2020 Mechanics: Exercise Seminar, Charles University, CZ (50 – 90 students per year)
2013 – 2017 Tutor of JCMS Laboratory Course - Neutron Scattering, FZ Jülich, Garching, DE

• INVITED LECTURES

1. LNS seminar, Paul Scherrer Institute, Villigen, Switzerland, 2019, <https://www.psi.ch/>
2. SwedNess course in neutron spectroscopy, Chalmers, Göteborg, 2018 & 2021, <https://swedness.se/>

• STUDENT MENTORING

2021 – 2022 Supervising PhD student and two bachelor students
2021 1x defended bachelor student at Charles University
2013 – 2018 Consultant of 2x master and 1x doctoral student

• REVIEWING ACTIVITIES

2023 – now Member of the Subcommittee 4 “Magnetic excitations” panel, ILL, Grenoble, F
2021 – now Member of the referee panel (subcommittee Structure), MLZ Garching, DE
2017 – 2021 Member of FAP 4 (Facility access panel), ISIS Neutron and Muon Source, UK

• ORGANISATION OF SCIENTIFIC MEETINGS

- 2020, 2022 Czech-Bavarian **MINI-SCHOOL 2020/2022** on large scale facilities and open data BTHA funded, 100 participants <https://mini-school.eu/>
- 2019 EHPRG satellite workshop “Modern trends in Neutrons under Extreme Pressures”, EHPRG Meeting 2019, Prague, CZ (50 participants) <https://me2d09.github.io/neutron.press/>
- 2018 The triple axis resolution workshop, Charles University, Prague, CZ (20 participants) <https://www.illcz.cz/>
- 2017 Triple Axis Resolution Workshop, MLZ, Garching, DE (30 participants) <https://doi.org/10.1080/10448632.2017.1342483>

• SCIENTIFIC SOFTWARE DEVELOPEMENT

- 2012 – 2013 Esmeralda Laue Suite (<https://lauesuite.com>)
- 2015 – 2019 CrysFiPy – Crystal Field Python package (<https://crysfi.py.rtdf.io>)
- 2014 – now NICOS contributor (<https://nicos-controls.org>)
- 2018 – now Python Research Infrastructure User System (<https://gitlab.mff.cuni.cz/mgml/prius>)

• INSTITUTIONAL RESPONSIBILITIES

- 2018 – now **Local Contact** at Materials Growth & Measurement Laboratory (MGML.eu), Prague, Czech Republic
- 2018 – now Implementation of the **open-source instrument control software** NICOS at MGML, Prague, Czech Republic
- 2019 – now Organizer of **irregular Czech Neutron Community meetings** (see <https://neutron.beer/>), Department of Condensed Matter Physics, Charles University, CZ

• TRACK RECORD

- ✓ I have substantial knowledge of advanced crystal field treatment, phonon–crystal field coupling, data visualization, magnetic structures refinement, Laue neutron diffraction and data evaluation.
- ✓ I am an expert in neutron triple-axis spectroscopy, resolution calculations and advanced data reduction and fitting and organized several workshops on it.
- ✓ I actively participated in the development of the ThALES and PANDA spectrometers.
- ✓ I am a programmer, and I contribute to several open-source Python and Fortran projects.
- ✓ I know solutions. **I lead the development** of computer vision solutions for a private company in past. Now I have decided to fully engage in science. I am currently team leader of funded project MaMBA.

Total publications in peer-reviewed journals with IF: 35

10x first author, 1x *Nature*, 1x *PRX*, 2x *Nature Comm.*, 1x *PNAS*, 4x *PRL*, 7x *PRB*, **h-index** = 12

List of all publications: <https://cermak.science/publications>

Presentations at international conferences: 9x oral and more than 30 posters.

Selected **invited speaking engagements and contributing talks** made to international conferences:

1. “ALSA: Automatic Laue Sample Aligner” (**invited**), <https://doi.org/10.6084/m9.figshare.20393673.v1> @ SCES 2022, Amsterdam, <https://sces2022.org/>
2. “Neutrons as a tool to surpass Born-Oppenheimer approximation” (**invited**) [#theLightStuff](https://youtu.be/KLW9nb8PI64) online lecture series, available on YouTube: <https://youtu.be/KLW9nb8PI64>
3. “Hybridized excitations in CeAuAl₃” (**invited**, <https://indico.frm2.tum.de/event/171/>) @ Frontiers in Quantum Condensed Matter Research with Neutrons 2019, Garching
4. “Neutrons as a key method for accessing magnetoelastic effects” @ ECNS 2019, St. Petersburg, <http://ecns2019.com/>
5. “Analysis of magneto-elastic hybridized effects due to the CEF” @ ICM 2018, San Francisco, <http://www.icm2018sf.org/>