

CURRICULUM VITAE

Jakub Cikhardt

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Education

PhD in Plasma Physics (2012 – 2018)

Czech Technical University in Prague, Faculty of Electrical Engineering

Thesis: High Energy Density Plasma Diagnostics Using Neutron and Gamma Detectors
(Supervisor: Prof. Daniel Klír)

MSc in Electronics (2010 – 2012)

Czech Technical University in Prague, Faculty of Electrical Engineering

Thesis: Construction of Fast Bolometer for Measurement of Intensity of Pulsed Soft X-Rays
(Supervisor: Prof. Pavel Kubeš)
Study was finished with the red diploma.

MSc Bilateral Exchange: Physical Electronics (2010 – 2011)

Tomsk Polytechnic University, Institute of High Technology Physics, Russia

Courses taken: Basics of Plasma Physics, Gas Discharge Physics, Experimental Electronics and Diagnostics, Plasma Technology

Project: Design, Construction, and Testing of Fast X-ray Bolometer
(Supervisor: Dr. Alexander Shishlov).

BSc in Electronics and Telecommunications (2007 – 2010)

Czech Technical University in Prague, Faculty of Electrical Engineering

Thesis: Gas-puff Electromagnetic Valve and Its Testing (Supervisor: Prof. Pavel Kubeš)

Employment

Department of Physics at the FEE, CTU in Prague

2022 – present: Assistant Professor

2018 – 2022: Postdoc researcher

2012 – 2018: PhD student

2010 – 2012: Graduated student

Institute of Plasma Physics of the Czech Academy of Sciences

2018 – present: Postdoc researcher

2012 – 2018: PhD student

Publication Activities (June 2024)

Records in WoS: 93

Number of citations by WoS (without self-citations): 566

***h*-index by WoS with self-citations:** 17

***h*-index without self-citations:** 10

Corresponding (first) author of 6 papers in WoS.

GRANTS

2023 – 2027: Principal investigator of the Czech Grant Agency (GAČR) JUNIOR STAR Project (23-05027M)
Project Title: Strong electromagnetic pulses: their generation, characterization and control

University Teaching Activities

Seminars and laboratory exercise in basic courses of physics.

Seminars and lectures of Physics for electroenergetics

Defended bachelor theses: 4

Defended master theses: 2

Currently leading 1 PhD student as supervisor, and 1 PhD student as supervisor specialist.

Results of 2 defended bachelor theses have been awarded at the student conference.

Internships and International Scientific Cooperation

- **Plasma Physics department, GSI Helmholtz Centre, Darmstadt, Germany**
Experimental research of laser-plasma on the laser system PHELIX,
one-year postdoc internship 1st May 2021 – 30th April 2022.
- **Rutherford Appleton Laboratory, Harwell Campus, Oxfordshire, England**
Laser plasma EMP experiment at the Petawatt Target Area of the VULCAN laser system,
length of the single stay in 2023 stay: 4 weeks
- **Plasma Physics Division, U.S. Naval Research Laboratory Washington, DC**
Deuterium Gas-puff Experiments on the HAWK DPF Device,
3 experimental campaigns in the period of 2018-2019 (total length: 1 ½ months).
- **Institute of High Current Electronics, Russian Academy of Sciences, Tomsk**
Deuterium Gas-puff Z-pinch Experiments on the GIT-12 Generator,
8 experimental campaigns in the period of 2012-2019 (total length: 8 months).
- **Institute of Plasma Physics and Laser Microfusion, Warsaw**
Deuterium Plasma Focus Experiments on the PF-1000 Device,
18 experimental campaigns in the period of 2012-2020 (total length: 7 months).
- **GSI Helmholtzzentrum für Schwerionenforschung GmbH, Darmstadt,**
Heavy Ion Stopping in X-ray Heated Low Density Foams,
Experimental campaign in 2014 with a length of 2 weeks.

Awards

- Dean award for Ph.D. thesis, 23rd April 2018, Prague.
- Awarded conference contribution: *Measurement of target current at laser system PALS using inductive probe* na 12th Kudowa Summer School “Towards Fusion Energy”, 9-13.06.2014, Kudowa Zdrój, Poland.
- Preciosa award for master thesis, 29.11.2012, Prague.
- Dean award for master thesis, 26.6.2012, Prague.
- Awarded conference contribution (1st price): *The noise reduction of the measured signal in plasma diagnostic with adaptive filtration.*, 15th International Student Conference on Electrical Engineering POSTER 2011, May 12, Prague, Czech Republic.
- Awarded conference contribution (3rd price): *Z-pinch discharges in deuterium gas-puff*, 14th International Student Conference on Electrical Engineering POSTER 2010, May 6, 2010, Prague, Czech Republic.