

## Curriculum Vitae

**Name:** prof. Ing. Daniel Klír, Ph.D. (\*1979)  
**ResearchID:** A-6461-2013  
**H-index:** 17  
**WoS articles:** 140 (115 in refereed journals)  
**WoS citations:** 900

### Research interests

High-energy density physics (z-pinch, laser-produced plasmas), plasma diagnostics, pulsed-power technology, ion and electron acceleration in laboratory and space plasmas, controlled thermonuclear fusion.

### Current positions

2019 – present Professor of Applied Physics  
Czech Technical University in Prague, Faculty of Electrical Engineering

### Previous positions

2014 – 2019 Associate Professor at Faculty of Electric. Eng., Czech Technical University in Prague  
2012 – 2019 Senior Scientist at Institute of Plasma Physics, Academy of Sciences of the Czech Rep.  
2012 – 2015 Senior Scientist at Institute of Physics, Academy of Sciences of the Czech Republic  
2008 – 2013 Assistant Professor at Faculty of Electric. Eng., Czech Technical University in Prague  
2005 – 2008 Research Associate at Faculty of Electric. Eng., Czech Technical University in Prague

### Education and training

2002 – 2005 Ph.D. course in Plasma Physics, Faculty of Electrical Engineering  
Czech Technical University in Prague; PhD Thesis: [Study of Fibre Z-pinch](#)  
1997 – 2002 Ing. (M.Sc. equivalent), Faculty of Nuclear Science and Physical Engineering  
Czech Technical Uni. in Prague; graduated *cum laude*  
2004 – 2009 Bc. (B.Th. equivalent) in Theology, Catholic Theological Faculty  
Charles University; Thesis: [Corpus Mysticum as...](#); graduated *cum laude*

### Professional experience

2000 – present Participation in >30 research programmes (3 years in total) on:  
GIT-12 pulsed power generator, Institute of High Current Electronics, Tomsk, Russia  
HAWK pulsed power generator, Naval Research Laboratories, Washington, DC  
PALS, Institute of Plasma Physics, Academy of Sciences of the Czech Republic  
Phelix laser & Unilac heavy ion accelerator, GSI Darmstadt, Germany  
Zebra pulsed power generator and Leopard laser, Nevada Terawatt Facility, Reno, NV  
PF-1000 plasma focus, Institute of Plasma Physics and Laser Microfusion, Warsaw  
S-300 z-pinch, Russian Research Center Kurchatov Institute, Moscow  
Speed-2 plasma focus, CCHEN, Santiago, Chile

### Supervision of students

2010 – present Supervisor of 4 Ph.D. students  
Faculty of Electrical Engineering, Czech Technical University in Prague  
2007 – present Supervisor of 2 bachelor students and 2 master students  
Faculty of Nuclear Science and Physical Engineering, Czech Technical Uni. in Prague

## Teaching activities

- 2005 – present Lectures at the Czech Technical University in Prague: Data analysis and signal processing, Plasma diagnostics, Pinches, Selected topics in ICF
- 2002 – present Seminars and laboratory exercises at the Czech Technical University in Prague: Basic course in physics

## Organization of scientific meetings

- 2019 Member of Int. Program Committee, 11<sup>th</sup> Int. Conf. Dense Z-pinches (Beijing, China)
- 2014 Member of Scientific Steering Committee, 9<sup>th</sup> Int. Conf. Dense Z-pinches (Napa, CA)

## Institutional responsibilities

- 2019 – present Member of Scientific Council, Faculty of Electrical Engineering
- 2017 – present Chair of Plasma Physics Board of Doctoral Degree Programme
- 2013 – 2017 Member of Plasma Physics Board of Doctoral Degree Programme  
Faculty of Electrical Engineering, Czech Technical University in Prague

## Commissions of trust

- 2012 – present Evaluator, Comisión Nacional de Investigación Científica y Tecnológica, Chile
- 2008 – present Reviewer, Scientific journals: *Scientific Reports*, *Physics of Plasmas*, *Plasma Physics and Controlled Fusion*, *Review of Scientific Instruments*, *European Physical Journal D*, etc.
- 2007 – 2011 Reviewer, Grant Agency of Charles University in Prague

## Membership of scientific societies

- 2006 – present Member of American Physical Society, Division of Plasma Physics

## Invited talks

- 2019 11<sup>th</sup> International Conference on Dense Z-pinches (August, Beijing, China)
- 2018 45<sup>th</sup> EPS Conference on Plasma Physics (July, Prague, Czech Republic)
- 2017 10<sup>th</sup> International Conference on Dense Z-pinches (August, Stateline, NV, USA)
- 2014 International Congress on Plasma Physics (September, Lisbon, Portugal),  
9<sup>th</sup> International Conference on Dense Z-pinches (August, Napa, CA, USA)
- 2011 8<sup>th</sup> International Conference on Dense Z-pinches (June, Biarritz, France)
- 2006 22<sup>nd</sup> Symposium on Plasma Physics and Technology (June, Prague, Czech Republic)

## Grants

- 2019 – 2021 Principal investigator of standard GACR project (19-02545S)
- 2017 – 2020 Principal investigator of MSMT Inter-Excellence project (LTAUSA-17084)
- 2016 – 2018 Principal investigator of standard GACR project (16-07036S)
- 2012 – 2014 Principal investigator of standard GACR project (P205/12/0454)
- 2008 – 2010 Principal investigator of postdoc GACR project (202/08/P084)

## Awards

- 2013 CTU Rector's Award for an excellent scientific result
- 2002 Josef Hlavka Award for the best Czech university student  
Siemens Award for Thesis
- 1997 Honourable mentioned at 28<sup>th</sup> International Physics Olympiad, Sudbury, Canada

## Social skills and competences

Corresponding author of 22 papers in peer-reviewed journals (*Phys. Rev. Lett*, *New Journal of Physics*, *Appl. Phys. Lett.*, *Plas. Phys. Control Fus.*, *Phys. Plasmas*, etc.)

Team work in domestic and foreign collectives

Coordinator of the joint Czech-Russian experiments on GIT-12 at the IHCE in Tomsk

Coordinator of the joint Czech-US experiments at Naval Research Laboratory, USA

## Major collaborations

Dr. B. Appelbe, Imperial College, London

Dr. S. Jackson, US Naval Research Laboratory, Washington, D.C.

Dr. V.D. Korolev, RRC Kurchatov Institute, Moscow

Dr. M. Krishnan, Alameda Applied Sciences Corporation, San Diego, CA

Dr. R. McBride, University of Michigan, Ann Arbor, MI

Prof. T. Pisarczyk, Inst. Plas. Phys. Laser Microfusion, Warsaw, Poland

Prof. O. Rosmej, GSI Helmholtzzentrum für Schwerionenforschung in Darmstadt

Prof. M. Sadowski, Andrzej Sołtan Instit. for Nuclear Studies, Swierk

Dr. A. V. Shishlov, Institute of High Current Electronics in Tomsk

Dr. L. Soto, Comisión Chilena de Energía Nuclear, Santiago de Chile

Dr. A. L. Velikovich, US Naval Research Laboratory, Washington, D.C.

## Top 3 articles in peer-reviewed journals since 2014

1. Klír, D. - Kubeš, P. - Řezáč, K. - Cikhardt, J. - Kravárik, J. - et al.: [Efficient Neutron Production from a Novel Configuration of Deuterium Gas-Puff Z-Pinch](#). *Physical Review Letters*. 2014, vol. **112**, no. 9, art. no. 095001.
2. Klír, D. - Shishlov, A. - Kokshenev, V. - Kubeš, P. - Labetsky, A. - et al.: [Efficient generation of fast neutrons by magnetized deuterons in an optimized deuterium gas-puff z-pinch](#). *Plasma Physics and Controlled Fusion*. 2015, vol. **57**, no. 4, art. no. 044005.  
Selected as Highlights 2015 of Plasma Physics and Controlled Fusion.
3. Klír, D. - Shishlov, A. - Kokshenev, V. - Kubeš, P. - Řezáč, K. - et al.: [Ion acceleration mechanism in mega-ampere gas-puff z-pinch](#). *New Journal of Physics*. 2018, vol. **20**, art. no. 053064.  
3000 downloads within 2 years.