

Brief structured curriculum vitae: **Milan Kálal** (born on March 24, 1952)

Education and employment

- 1976 - graduated from the Czech Technical University in Prague (Ing. - Physical Engineering)
Measurement of Raman back scattering differential cross sections of some gases
- 1984 – Ph.D. (CSc.) degree in Applied Physics from CTU in Prague
Hot electron generation during interaction of intense laser radiation with plasma
- 1999 - habilitation – associate professor of applied physics (doc.) – CTU in Prague (*Complex Interferometry*)

Apr 1, 1982 – Jun 25, 1984	Dept. of Physical Electronics, FNSPE CTU in Prague
Jun 26, 1984 – Sep 30, 1987	In charge of the largest pulse laser in the Czech Republic Laser Physics Center, Australian National University, Canberra, Australia (measurement of spontaneous magnetic fields in laser-produced plasma – invention of Complex Interferometry)
Oct 1, 1987 – Jul 31, 1994	Dept. of Physical Electronics, FNSPE CTU in Prague (Research Fellow)
Aug 1, 1994 – Mar 31, 1998	Dept. of Physical Electronics, FNSPE CTU in Prague (Senior Research Fellow)
Apr 1, 1998 – Mar 31, 1999	Dept. of Physical Electronics, FNSPE CTU in Prague (Scientific Secretary of the Department)
Apr 1, 1999 – Mar 31, 2000	Dept. of Physical Electronics, FNSPE CTU in Prague (Deputy Head of the Department)
Apr 1, 2000 – Mar 31, 2006	FNSPE CTU in Prague (Vice-Dean of the Faculty)
Apr 1, 1999 – Present	Dept. of Physical Electronics, FNSPE CTU in Prague (Associate Professor in Applied Physics)
Jan 1, 2001 – Dec 31, 2005	Part-time research associate at PALS laboratory of AS CR
Apr 1, 2006 – Dec 31, 2013	School of Applied and Engineering Physics, FNSPE CTU in Prague (Chair)
Jan 1, 2014 – present	Part-time research associate at PALS laboratory of AS CR

Supervision of PhD students

- supervised 2 defended PhD Theses
- co-supervising 1 PhD student (HiLASE)
- supervision of 1 PhD student (from 1.10.2016 at CTU in Prague)
- co-supervised 2 defended PhD Theses (in CR)
- co-supervised 2 defended PhD Theses abroad (Republic of Korea, UK)

Research projects

1996-1999	Investigator of one GA CR project (3 years, 5 millions CZK) and a team member of 2 research projects supported by GA CR
2003-4 and 2005-11	a team member of the projects LN00A100 and LC528 (research centers) by the Ministry of Education, Youth and Sports of the Czech Republic (MEYS CR)
2001-2005	Principal Investigator in an international research team participating in the IAEA Coordinated Research Project No.: 11655
2006-2010	Principal Investigator in an international research team participating in the IAEA Coordinated Research Project No.: 13781
2007-2009	Investigator of MEYS CR project KONTAKT ME 933 with the Republic of Korea
2013-present	Deputy representative of the Czech Republic in the Management Committee of COST action MP1208
2014-present	Deputy investigator of project LD14089 of the program COST CZ by MEYS CR

Research topics

- Development of advanced optical diagnostics (*Complex Interferometry*) and its application in laser-produced plasmas (e.g., measurement of spontaneous *magnetic fields*).
- High power laser-matter interaction studies related to *Inertial Fusion Energy* (IFE) research. Development of a new approach to the IFE major issues: *self-navigation* of laser drivers to the injected pellets using stimulated Brillouin scattering (SBS) based phase conjugating mirrors (PCM).
- Analytic solution of the Vlasov equation in the case of *arbitrarily large* electromagnetic fields in the form of *differential operators* in the *velocity* space to be applied to the boundary condition (electron distribution function).

Research visits

1981 – 1982	3 visits to Lebedev Physical Institute AS USSR, Moscow, Russia (5 months in total)
1984 – 1987	39 months in Laser Physics Center, Australian National University, Canberra, Australia
1993	visiting professor to the Oxford University & Rutherford Appleton Laboratory (6 weeks)
2000 – present	visiting professor to Korean research universities and research institutes: KAIST, POSTECH, GIST, HILT, KAERI (over 40 visits, several MoU signed)
2000 – 2012	several invited visits to University of Bangalore, Bangalore, India (total 6 weeks)
2012	visiting professor to Instituto de Nanociencia y Nanotecnología - Comisión Nacional de Energía Atómica, Buenos Aires, Argentina (total 2 weeks)
2012	visiting professor to the University of Batna, Algeria (1 weeks)
2012 – 2013	2 invited visits to ENEA, Frascati, Italy (total 2 weeks – both related to Complex Interferometry)
2014 – 2016	6 invited visits (one week per visit – all related to Complex Interferometry) : <ul style="list-style-type: none">- KAIST and GIST, Republic of Korea- GSI and TU Darmstadt, Germany- Strathclyde University and University of York, UK

Publications

Author or co-author of 56 papers in impacted scientific journals (WoS)

H-index: 11

Varia:

- Serving as a reviewer to about 20 WoS journals.
- Since 1996 member of the ISC of the *European Conference on Laser Interaction with Matter* (ECLIM).
- Member of the *Beam Plasma & Inertial Fusion Board* of the European Physical Society for the period 2010-2014.
- In 2008 nominated by IAEA to serve in the *Programme Committee* of the largest bi-annual IAEA *Fusion Energy Conference* (as the EU representative for IFE).
- Member of the *Editorial Board* of the *Laser & Particle Beams Journal* (Cambridge University Press).
- Member of the *Collaboration Board* of the *High Energy Density generated by Heavy ion Beams* (HEDgeHOB) international project under construction in GSI Darmstadt (FAIR).
- Elected Member of the Academic Senate of the CTU in Prague (2014-2016).