CURRICULUM VITAE

Name:
Doc.Ing.Jozef Kravárik,CSc

Education, proffesional experiences and institutional responsibilities

1954-1959 Graduate of The Czech Technical University - Faculty of electrical ingeneering in Poděbrady, Employed from 1960 to the present at the Department of Physics, CTU in Prague,
1960-1963 assistant, since 1963 ssistant professor,
1966- CSc (PhD ekvivalent),
1976 Associate professor, habilitation thesis: " Applications of ruby laser in Plasma diagnostics"
1982-1983 Head of the Department of Physics at a detached Department in Poděbrady
1981-1985 Principal investigator of the research task "Current channels of pulse discharges"
1986-1990 Principal investigator of the research task "Structure of Non-Homogeneity of Electrical Discharges"
1992-1993 Participation in CTU Grant No. 3812 "Diagnostics and Dynamics of Z-Pinch"
1993-1995 Participation in GAČR Grant No. 202/93/1023 "The complex of physical characterization of z-pinch plasma.
1993 Experiments on 35 kJ Plasma-Focus device at the Università degli Studi di Ferrara, Italy
1997 Experiments on Z-Pinch device at the Imperial College London (Blackett Laboratory)
1999 Experiments on a small pinch at the Ruhr University Bochum
1997-2009 Experiments on S-300 device at the Kurtsatov Institute Moscow
1995-2012 Experiments on PF-1000 device at the IFPILM Warsaw
2007 present, head of the Heavy-Current Discharges Laboratory at the Department of Physics of Czech Technical University in Prague.

Realized facilities:
1965 Reils plasma accelerator, 1980 coaxial plasma accelerator, Ruby laser for diagnostics, 1986 Z-pinch apparatus, 2 ns Nd: YAG laser, 2007 PFZ 200 device (Plasma focus-Z pinch 200 kA).
Time-delay control and synchronization systems

Applied diagnostics:
Current and voltage measurement
Schlieren and shadows methods for plasma non-homogenity visualization
Michelson's and Mach-Zehnder interferometers with ruby and Nd:YAG lasers for plasma density measurements
Cerenkov's electron detector
XUV detection and spectroscopy
Pinhole camera with MCP detector
Neutron and hard x-rays detection

Participation in grants after 2000:
1999-2019 in the INGO project "ICDMP Research"
2005-2015 in the project ME761 "Czech-Russian Cooperation".
1999-2011 in the Laser Plasma Research Center MŠMT LN 00A100 and LC 528.
2008-2011 in the project "Center of Excellence on Applications of Plasma and Pulsed Power Technique EU" No. GMA-2002-72115a Grant 6RP EU Infrastructures.
2008-2011 in GAČR 202-08-H057 "Modern trends in plasma physics" and P 505-12-0454.
2008-2015 in IAEA F 13012 "Integrated approach to Dense Magnetized Plasma applications in nuclear fusion technology" .

Publications:
More than 300 articles in professional journals, according to WOS H index 13,
More than 500 citations.

Selected articles in journals since 2009
P. Kubes, **J. Kravarik** , D. Klir , K . Rezac: Neutron Production at the Small Plasma Focus Device with Antianode, *IEEE Transactions on Plasma Science, Vol. 37, 2009, 1786-1791, 160665*

P. Kubes, **J. Kravarik**, D. Klir, K. Rezac, J. Kortanek: Neutron Production from a Small Modified Plasma Focus Device, *IEEE Transactions of Plasma Science 40 (2012), 3298-3302,198621*

Kubeš, P., Klír, D., **Kravárik, J.,** Řezáč, K., Kortánek, J., et al.: Scenario of Pinch Evolution in a Plasma Focus Discharge, Plasma Physics and Controlled Fusion. 2013, vol. 55, no. 3.

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

P. Kubes, M. Paduch, J. Cikhardt, D. Klir, **J. Kravarik**, K. Rezac, et all ,The evolution of the plasmoidal structure in the pinched column in plasma focus discharge, *Plasma Physics and Controlled Fusion*, *2016* Volume 58, 045005.

Teaching activities:

Since 1960, seminar and laboratory exercises at the Czech Technical University in Podebrady and Prague, Basic course in physics

1975-1998 Lectures and exercises at the Czech Technical University in Podebrady and Prague: Basic course in physics

Since 1994 lectures and seminar and laboratory exercises: Selected parts of Optics.

Lecture notes: Fundamentals of Physics-Optics, Exercises from Basic Physics I, and Basic Physics II, Internal texts for lectures: Selected Parts of Optics.