PERSONAL INFORMATION

Petr Šperka, Ph.D.

Ostopovická 496/4, Moravany, 664 48, Czech Republic
+420 541 143 323
sperka@fme.vutbr.cz
Researcher ID, Thomson Reuters: http://www.researcherid.com/rid/B-3574-2012
Google Scholar: http://scholar.google.cz/citations?hl=cs&user=PSnPIhEAAAAJ

Sex Male | Date of birth 23/08/1983 | Nationality Czech

WORK EXPERIENCE

2015 - 2020

Assistant Professor

Brno University of Technology

Institute of Machine and Industrial Design, Faculty of Mechanical Engineering

Technicka 2896/2, 616 69 Brno, Czech Republic, http://www.fme.vutbr.cz/?lang=1

- Research and development, scientific publications, teaching activities

2011 - 2015

Postdoctoral Researcher

Brno University of Technology

Institute of Machine and Industrial Design, Faculty of Mechanical Engineering

Technicka 2896/2, 616 69 Brno, Czech Republic, http://www.fme.vutbr.cz/?lang=1

- Research and development, scientific publications, teaching activities

EDUCATION AND TRAINING

2007-2011

Doctor of Philosophy (Ph.D.)

ISCED 6

Brno University of Technology, FME, Czech Republic

Design and Process Engineering

- In-situ study of surface topography changes in elastohydrodynamic contact.

2002-2007

Master of Science in Mechanical Engineering (Ing.)

ISCED 5A

Brno University of Technology, FME, Czech Republic

Applied Mechanics

- 3D optical profilometer for mapping of engineering surfaces.

PERSONAL SKILLS

Mother tongue(s): Czech

Other language(s)

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	C1	C1	B1	B2	B2

Levels: A1/2: Basic user - B1/2: Independent user - C1/2 Proficient user
Common European Framework of Reference for Languages

Communication skills
- good communication skills gained through my research activities

Organisational / managerial skills
- leadership (leader of research group section elastohydrodynamics)

Job-related skills

Main research areas

- Elastohydrodynamic and mixed lubrication.
- Roughness effects in fluid film lubrication.
- Optical methods for lubricant films study.
- Fluid film friction and lubricant rheology.

Driving licence
- B

ADDITIONAL INFORMATION

Publications

Five recent publications

- HOOKE, C., SPERKA, P. and BAIR, S. A comparison of measured film thicknesses with quantitative predictions from an elastohydrodynamic, perturbation analysis at high slide-roll ratios. Proceedings of the Institution of Mechanical Engineers, Part J: Journal of Engineering Tribology, 2020, 1350650120947285.
- ZAPLETAL, T., SPERKA, P., KRUPKA, I., and HARTL, M. On the Relation between Friction Increase and Grease Thickener Entraining on a Border of Mixed EHL Lubrication. Lubricants, 2020, 8.2: 12.
- ZAPLETAL, T., SPERKA, P., KRUPKA, I., and HARTL, M. The effect of surface roughness on friction and film thickness in transition from EHL to mixed lubrication. Tribology International, 2018, 128: 356-364.
- SPERKA, P., KRUPKA, I., and HARTL, M. Analytical Formula for the Ratio of Central to Minimum Film Thickness in a Circular EHL Contact. Lubricants, 2018, 6.3: 80.
- KANETA, M., SPERKA, P., YANG, P., KRUPKA, I., YANG, P., and HARTL, M. Thermal Elastohydrodynamic Lubrication of Ceramic Materials. Tribology Transactions, 2018, 1-11.

Honours and awards

Maurice Godet Award, Lyon, 2009

- for the best paper and presentation by a young scientist. Leeds-Lyon Symposium on Tribology, Lyon.
- SPERKA, P., KRUPKA, I and HARTL, M. Experimental Study of Real Roughness Attenuation in Concentrated Contacts. Tribology International. 2010, 43.10: 1893-1901. ISSN 0301679x.

Captain Alfred E. Hunt Award, Atlanta, 2017

- from STLE for the best paper in the field of lubrication published in Tribology Transactions.
- SPERKA, P., KRUPKA, I. and HARTL, M. Experimental Study of Roughness Effect in a Rolling–Sliding EHL Contact. Part I: Roughness Deformation. Tribology Transactions. 2016, 59.2: 267-276.

The Best Paper Award, Japan, 2018

- from JAST for the best paper published in Tribology Online.
- SPERKA, P., KRUPKA, I. and HARTL, M. Prediction of Shallow Indentation Effects in a Rolling-Sliding EHL Contact Based on Amplitude Attenuation Theory. Tribology Online, 2017, 12.1: 1-7.