

# **16th International Conference on Metrology and Properties of Engineering Surfaces (Met & Props 2017)**

Journal of Physics: Conference Series  
Volume 1183

Gothenburg, Sweden  
26 – 29 June 2017

ISBN: 978-1-5108-8939-2  
ISSN: 1742-6588

**Printed from e-media with permission by:**

Curran Associates, Inc.  
57 Morehouse Lane  
Red Hook, NY 12571



**Some format issues inherent in the e-media version may also appear in this print version.**

This work is licensed under a Creative Commons Attribution 3.0 International Licence. Licence details:  
<http://creativecommons.org/licenses/by/3.0/>.

No changes have been made to the content of these proceedings. There may be changes to pagination and minor adjustments for aesthetics.

Printed with permission by Curran Associates, Inc. (2020)

For permission requests, please contact the Institute of Physics at the address below.

Institute of Physics  
Dirac House, Temple Back  
Bristol BS1 6BE UK

Phone: 44 1 17 929 7481  
Fax: 44 1 17 920 0979

[techtracking@iop.org](mailto:techtracking@iop.org)

**Additional copies of this publication are available from:**

Curran Associates, Inc.  
57 Morehouse Lane  
Red Hook, NY 12571 USA  
Phone: 845-758-0400  
Fax: 845-758-2633  
Email: [curran@proceedings.com](mailto:curran@proceedings.com)  
Web: [www.proceedings.com](http://www.proceedings.com)

# Table of contents

## Volume 1183

**16th International Conference on Metrology and Properties of Engineering Surfaces  
(Met and Props 2017)**

**26–29 June 2017, Gothenburg, Sweden**

**Accepted papers received: 1 February 2019**

**Published online: 11 June 2019**

### **Preface**

[16th International Conference on Metrology and Properties of Engineering Surfaces \(Met & Props 2017\)](#)

[Peer review statement](#)

### **Papers**

#### **Surface Properties and Function**

[Research of the influence of the 2D and 3D surface roughness parameters of bearing raceways on the vibration level](#)

S Adamczak and P Zmarzły.....1

[Evaluation of the influence of selected parameters of Selective Laser Sintering technology on surface topography](#)

Cz Kundera and T Koziar.....11

[Calculation of plasticity index of honed cylinder liner textures](#)

P Pawlus, W A Grabon and D Czach.....18

[Focus variation measurement and advanced analysis of volumetric loss at the femoral head taper interface of retrieved modular replacement hips in replica](#)

Karl Walton, Maila Petrucci, Radu Racasan, Liam Blunt, Alister Hart and Paul Bills.....26

[Surface Topography of Nitrided Steel Surfaces](#)

Johan Berglund and Eva Troell.....41

[Characterization of subsurface deformation of turned brasses: lead brass \(CuZn<sub>39</sub>Pb<sub>3</sub>\) and lead free brass \(CuZn<sub>21</sub>Si<sub>3</sub>P\)](#)

Vijeth V Reddy, Pui Lam Tam, Amogh Vedantha Krishna and B-G Rosén.....51

[Wear analysis of pin and roller surfaces](#)

Z El-Ghoul, S John, Z Dimkovski, P.-J Lööf, J Lundmark and J Mohlin.....59

**Surface Metrology**

[Identification of the minimum chip thickness based on the two-dimensional wavelet analysis](#)

W Makiela, D Gogolewski and Ł Nowakowski.....72

[Uncertainty evaluation for absolute flatness measurement on horizontally aligned fizeau interferometer](#)

K Wirotrattanaphaphisan, J Buajarern and S Butdee.....80

[Fast Measurement Method of Gear Parameters Based on Convexity Defect](#)

Chen Guo-hua, Liu Xiao-long, Zhang Ai-jun and Wang Jun-yi.....90

[Transparent object detection and location based on RGB-D camera](#)

Chen Guo-Hua, Wang Jun-Yi and Zhang Ai-Jun.....99

## **Surface Manufacturing and Control**

[Evaluation method of running performance for five-axis machining center based on the "S" specimen](#)

H J Wang, F X Han, Y H Gu, B G Rosén and A N Zou.....109

[Dynamic characteristics of the annular rotor components in a rotor-bearing system under high frequency stress conditions](#)

Chenglin Wang, Huating Chen, Weichen Sun and H J Wang.....121