

1st Green Tribology conference

Associated with Leeds-Lyon symposium 2023

Leeds, Wednesday 6th of September 2023

CONFERENCE PROGRAMME

SESSIC

SESSION I

Wednesday 09:15 – 10:45 Chaired by Marko Po

Chaired by Marko Polajnar, University of Ljubljana Room LG19, Michael Sadler Building

Dry sliding and water lubricated tribological performance of 3D printed PEEK/CF-PEEK

<u>Nayan Dhakal</u>, Cayetano Espejo, Ardian Morina and Nazanin Emami *Lulea University of Technology, Sweden; University of Leeds, UK*

Wear analysis of DLC coatings against cfrp-ti stacks tested in cross-cylinder configuration

<u>Sharjeel Ahmed Khan</u>, João Oliveira, Fabio Ferreira, Nazanin Emami and Amilcar Ramalho *University of Coimbra, Portugal; Lulea University of Technology, Sweden*

Effect of Ti3C2Tx Mxene as lubricant additive on friction reduction performance

Afrina Khan Piya, Liuquan Yang, Nazanin Emami and Ardian Morina

University of Leeds, UK; Lulea University of Technology, Sweden

Adsorption of organic lubricant additives on high-performance polymers

Pedro Martins Ferreira, Bruno Trindade and Mitjan Kalin

University of Ljubljana, Slovenia; University of Coimbra, Portugal

SESSION II

Wednesday 11:15 - 12:45

Chaired by Nazanin Emami, Lulea University of Technology Room LG19, Michael Sadler Building

Investigating synergism potential of graphite and boron nitride fillers for enhanced triboperformance under aqueous condition.

Prashant Gangwani, Nazanin Emami and Mitjan Kalin

Lulea University of Technology, Sweden; University of Ljubljana, Slovenia

Mechanical and tribological characterisation of PI-based composites at room and cryogenic temperatures

Maksim Nikonovich, Amilcar Ramalho and Nazanin Emami

University of Coimbra, Portugal; Lulea University of Technology, Sweden

Life cycle analysis of pure DLC coatings deposited by PVD and PECVD techniques for green tribology

Larissa Mitie Ihara, Albano Cavaleiro, Ardian Morina and Liuquan Yang

University of Leeds, UK; University of Coimbra, Portugal

Excellent tribological performance of blue luminescent citric acid derived graphene quantum dots as an additive in aqueous lubricant

Irfan Nadeem, Albano Cavaleiro and Mitjan Kalin

University of Ljubljana, Slovenia; University of Coimbra, Portugal

SESSION III

Wednesday 14:00 - 15:30

Chaired by Bruno Trindade, University of Coimbra Room LG19, Michael Sadler Building

POM/regenerated cellulose fiber composites as sustainable engineering materials

<u>Lucas Kneissl</u>, Mitjan Kalin and Nazanin Emami

Lulea University of Technology, Sweden; University of Ljubljana, Slovenia

Development of layered ti-dlc/dlc coatings with improved properties and evaluation of their tribological properties in green lubricating oils

<u>Mobeen Haneef</u>, Manuel Evaristo, Liuquan Yang, Ardian Morina and Bruno Trindade

University of Coimbra, Portugal; University of Leeds, UK

Development and properties of aC:H:Si:O coatings

Abgaat Naseer, Manuel Evaristo, Mitjan Kalin and Albano Cavaleiro

University of Coimbra Portugal, University of Ljubljana, Slovenia

Advanced tribological performance of fatty acid, acid/amine additive mixture and ionic liquid

Ju Shu, Cayetano Espejo, Mitjan Kalin and Ardian Morina

University of Leeds, UK; University of Ljubljana, Slovenia

SESSION IV

Wednesday 16:30 – 17:30

Chaired by Tomaž Požar, University of Ljubljana Room LG19, Michael Sadler Building

Keynote lecture (16:30-17:00):

Losses in the Electrical Powertrain - from wind turbine to electric vehicle

Professor Rob Dwyer-Joyce

University of Sheffield, UK

Panel Discussion (17:00-17:30):

<u>Professor Rob Dwyer-Joyce</u> & <u>GreenTRIBOS consortium</u>