Dmytro ORLOV – short biography
May 2025

Dmytro Orlov, PhD, is Professor of Materials Engineering in the Division of Mechanics, Materials and Component Design at the Faculty of Engineering (LTH) in Lund University, Lund, Sweden.

After graduating from Donetsk National Technical University and following tenure as a research scientist at Donetsk Institute for Physics and Engineering of the National Academy of Sciences – Ukraine, Prof. Orlov spent 10+ years at postdoctoral and research scientist positions in world-renowned laboratories at Osaka, Kyoto and Ritsumeikan Universities in Japan, Monash University in Australia and University of Nova Gorica in Slovenia. In the latter, he also received habilitation. He joined Lund University as a tenured Professor of Materials Engineering in spring 2015 and chaired the Division of Materials Engineering between 2015-2022. In 2022, he co-founded a startup company 'LBM Sweden AB' developing bio-degradable metal implants. To date, his track record includes 30+ research projects, 7 patents, 100+ research papers, book chapters and books, and approximately as many lectures at international meetings among which 40+ were Invited and Keynote.

The background of Prof. Orlov is in the engineering of thermo-mechanical processing technologies for metallic materials fabrication with a core expertise in the design of deformation processing based techniques. To date, his contributions into the field include the development of Twist Extrusion technique for imparting large plastic deformations to materials without changing the net shape of a work piece, analysis of microstructure and texture evolution in metallic materials under large deformations with strain reversals as well as dependence of crystallographic orientation of surface on degradation phenomena in magnesium, etc. The primary scope of his laboratory within LTH is the engineering of novel materials with hierarchical structures architected from atomic- through to macro-scales. His present research interests and ongoing research projects focus on the design of Mg alloys for biomedical and light-weight mobility applications, multi-scale architected structures with topological control of their heterogeneity, and the development of relevant *in situ* characterisation techniques at laboratory and large-scale facilities such as synchrotrons and neutron sources.