



State-of-the-art devices for optical communications based on nonlinear effects in optical fibres

Dr Vladimir GORDIENKO
AiPT, Aston University
Birmingham, UK

27th April 2021, 2-4 pm (UK time):

Optical wave propagation in fibre

28th April 2021, 12-2 pm (UK time):

Power amplifiers for fibre optic communications

29th April 2021, 12-2 pm (UK time):

Principles of fibre optic parametric amplification

30th April 2021, 2-4 pm (UK time):

Optical parametric amplifiers, conjugators and converters

Abstract:

The global tech industry is heavily reliant on fibre optic communications, and its further development is bound to faster and cheaper data transmission. Therefore, one of key research focuses is the invention of new technologies and devices to increase capacity of fibre optic links at reduced cost. These lectures will cover principles, state of the art and applications of a range of novel amplifiers and nonlinearity-based devices likely to transform the optical communications within the next decade by multiplying capacity of communication links and improving utilization of available bandwidth.

Short Bio:

Vladimir Gordienko has received his PhD for his work on broadband fibre optic parametric amplifiers at Aston University, Birmingham, UK in 2018. Since then he has been a Research Fellow at Aston University working on several government and industrial funded projects focused on four-wave mixing based devices. He is now leading teams of researchers working on fibre optic parametric amplifiers and optical wavelength converters. Dr Gordienko is an author of ~30 journal and conference publications, including 3 invited talks, and a patent.



Co-funded by the
Erasmus+ Programme
of the European Union