Prof. Dr. Denis L. Nika
Iu. Perlin Department of Theoretical Physics,
Moldova State University, MD-2009, Chisinau,
Republic of Moldova
Email: dlnika@yahooo.com



Title of the lecture: Phonons in twisted graphene

Abstract
When two graphene layers are placed on top of each other, they can form a moire pattern – twisted graphene. In this case, one layer of carbon atoms is rotated relative to another layer by an arbitrary angle. In the talk, a brief review of recent theoretical and experimental results [1-3] on the engineering of phonon properties of twisted graphene by atomic plane rotations are provided. Angle-dependent specific heat and thermal conductivity of twisted graphene are discussed.

Acknowledgments
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References
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[2] H.Li et al. Thermal conductivity of twisted bilayer graphene. Nanoscale 6, 13402 (2014).
[3] A.I. Cocemasov, C.I. Isacova, D.L. Nika. Chin. Phys. B 27, 056301 (2018).

Biography
Prof. Dr. Denis L. Nika (1979) is the Chair of the Iu. Perlin Department of Theoretical Physics and Head of the E. Pokatilov Laboratory of Physics and Engineering of Nanostructures at the Moldova State University. He received his PhD degree in Theoretical and Mathematical Physics from the same University in 2006. As a Visiting Researcher he worked at the University of Antwerp (Belgium), Institute for Integrative Nanosciences, Dresden (Germany) and at the Nano-Device Laboratory, Bourns College of Engineering, University of California – Riverside (USA). His research interests include various topics in physics of nanostructures such as phonons and thermal transport in multi-layered nanostructures and graphene; multi-band theory of the electron, hole, exciton and impurity states. He was twice awarded the honorary title “The Best Young Scientist of the Republic of Moldova” (in 2008 and 2014). He has over 80 technical journal publications, 6 reviews and 4 book chapters. His h-index is 29 and his papers were cited more than 5500 times (www.scopus.com, 2019).