Seminar announcement

Tuesday, June 14, 2022
5 pm

WSI, Seminar room S 101
also ONLINE via ZOOM
https://tum-conf.zoom.us/j/66179935560
Meeting-ID: 661 7993 5560
Kenncode: 807024

"The role of fluctuations and nonuniformities in photon detection by superconducting nanostrips"

In the last two decades superconducting nanowire single photon detectors have become a technology of choice in applications requiring a combination of several ultimate figures of merit, e.g. broadband spectral sensitivity, low timing jitter and low rate of dark counts. Although engineering solutions have been found allowing to obtain ultimate performance, the physical reasons of performance degradation are not fully understood. Here I will argue that the thermal fluctuations in the nanoscale and the non-uniformities in the local energy gap play the major role in the aforementioned figures of merit.

Prof. Alexej Semenov
Institute of Optical Sensor Systems
German Aerospace Center (DLR) Berlin
Germany