Speaker: **Andris Erglis, University of Palermo**

Title: **Bosonic skin effect in asymmetric transport**

Date: **Tuesday, August 12th, 11 am (s.t.)**

Place: **Seminar room 915**

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The bosonic skin effect (SciPost Phys. 16, 029 (2024)) is a newly predicted incoherent nonlinear transport phenomenon occurring in a one-dimensional bosonic lattice where, at the critical ratio between left and right hopping rates, the real-space profile of the photon density exhibits a zigzag pattern close to a lattice edge. In the first part of the talk, I will introduce the general formalism and some results of the bosonic skin effect. In the second part, I will discuss the effects of introducing two types of impurity in the system: local gain/loss and a hopping rate defect. Moreover, I will briefly discuss some preliminary results of a lattice with alternating hopping rates (SSH-type model).