

SEMINARIUM Z MAGNETYZMU I NADPRZEWODNICTWA

Uprzejmie zawiadamiamy, że w **środę**

02 marca 2022 r., o godz.10:00

odbędzie się seminarium **on-line** (link podany jest na stronie IF PAN),
na którym

prof. dr hab. Tadeusz Domański

*(Katedra Fizyki Teoretycznej, Instytut Fizyki,
Uniwersytet Marii Curie-Skłodowskiej w Lublinie)*

wyłosi referat na temat:

“ Dynamical quantum phase transitions in superconducting systems”

We discuss dynamical quantum phase transitions which can be realized in various superconducting systems. Specifically, we analyze quenches acting on a correlated quantum dot embedded between superconducting and metallic reservoirs. Under stationary conditions the induced on-dot pairing competing with the Coulomb repulsion imposes either the singly occupied (spinful) or BCS-type (spinless) configuration of the ground state. We study the dynamics upon traversing this phase boundary by means of the time-dependent numerical renormalization group approach, revealing dynamical quantum phase transition. We also show that signatures of this dynamical singlet-doublet phase transition would be detectable by the tunneling spectroscopy.

(The lecture will be given in Polish and the slides will be in English).

Serdecznie zapraszamy

**Roman Puźniak
Andrzej Szewczyk
Henryk Szymczak**