

SEMINARIUM Z MAGNETYZMU I NADPRZEWODNICTWA

Uprzejmie zawiadamiamy, że w **ŚRODĘ**

21 listopada br., o godz. 10:00

w sali 203 (bud. 1) odbędzie się seminarium, na którym

Prof. A. I. Voitenko

Instytut Fizyki Ukraińskiej Akademii Nauk

wygłosi referat na temat:

„Charge-density-wave origin of the dip-hump structure and the pseudogap manifestations in tunnel spectra of non-homogeneous high-temperature cuprates”

Non-symmetry, with respect to the bias voltage V , of the current-voltage characteristics (CVCs) for non-symmetric (SIN, S stands for a superconductor, I for an insulator, and N for a normal metal) tunnel junctions metal – insulator – high- T_c superconductor (HTSC) is drastically different from that measured for SIN junctions with low-temperature superconductors. The non-symmetry of CVC stems from the existence of the so-called dip-hump structure (DHS) in one of its V -polarity branches. The DHS is also observed in both branches of CVC for symmetric (SIS) configurations. Another feature of the CVC for junctions with HTSCs is the so-called pseudogap (PG) feature, i.e., the gap-like feature that is observed above the critical temperature. We demonstrate that both the DHS and the PG can be explained in the framework of a unique approach, if HTSCs are considered as spatially non-homogeneous superconductors with charge-density waves (CDWs). The corresponding calculations and the comparison of the results obtained confirm this hypothesis about the CDW-origin of both DHS and PG phenomena.

Serdecznie zapraszamy

Roman Puźniak

Henryk Szymczak

Andrzej Wiśniewski