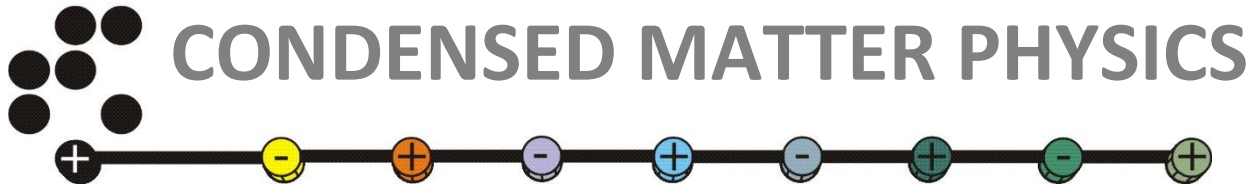


F-5 SEMINAR



*Tuesday, April 25, 2023
at 1 PM*

*in the seminar room of physics (room 106)
Condensed Matter Physics, Jožef Stefan Institute*

RNDr. Pavol Priputen, PhD
*Institute of Materials Science
Slovak University of Technology, Trnava, Slovakia*

Unusual order/disorder behavior in Al-Co-Cu-Fe-Ni high-entropy alloys

The effect of Cu concentration on the order/disorder behavior of the Al-Co-Cu-Fe-Ni high-entropy alloys will be presented. After casting, the alloys consist of an ordered BCC phase and two ordered FCC phases, with the FCC to BCC ratio increasing as the Cu content increases. After annealing, the alloys are composed of a disordered BCC phase and a mixed region, in various mutual ratios depending on the Cu content. The mixed region consists of a disordered BCC phase intergrown with nearly pure Cu with a disordered FCC structure. Thus, the alloys form ordered structures after casting and disordered structures after annealing, which is the opposite of what would be expected.

You are cordially invited to attend.