ODSEK ZA KOMPLEKSNE SNOVI

**Seminar**

of the Department of complex matter F7

**Thursday, 22.11.2018 at 11:00**,
Seminar room F7

# $Sr_xBi_2Se_3$-nematicity, superconductivity, crystals and thin films

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3D topological insulator $Bi_2Se_3$ attracts much attention as a platform for future low consumption spintronics and quantum computations. Recently, nematic (and possibly topological) superconductivity was discovered in $A_xBi_2Se_3$, where $A$ = Cu, Sr, Nb. In my talk I will discuss phenomenology of the nematicity, observed in $Sr_xBi_2Se_3$ single crystals in both superconducting and normal states. I will also review our efforts on molecular beam epitaxy growth of both parent compound $Bi_2Se_3$ and Sr-doped $Bi_2Se_3$ thin films. The latter appear to be non-superconducting because Sr atoms in the films get different positions than in the crystals. Our results call for novel growth approaches for design of superconducting $Sr_xBi_2Se_3$ thin films.

The lecture will be held in English.
Cordially invited to attend.