F-5 SEMINAR



Friday, June 2, 2023 at 10:30 AM

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

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Formation and properties of topological defects in liquid crystals

Topological defects in liquid crystals influence the material's optical, electrical, and mechanical properties. Understanding and controlling these defects can enhance the development of displays, sensors, and photonic devices. The use of experimental techniques such as stroboscopic imaging, nanosecond "coherent" laser illumination, and two-photon laser lithography allows us to study a) the formation of topological defects after rapid cooling through the phase transition from the isotropic to the nematic LC phase, and b) the structure and properties of liquid crystals and topological defects around nontrivial geometries, such as tori, knots, Möbius strips, Janus particles, etc.

You are cordially invited to attend.