F-5 SEMINAR



Friday, May 19, 2023 at 10:30 AM

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

> *Gregor Pirnat, MSc. Jožef Stefan Institute, Ljubljana*

Droplet microcavity based methods for probing soft and biological materials

Droplet microcavities are optical devices exhibiting whispering gallery mode optical resonances, which depend highly on droplet size, shape, and the refractive index of both the droplet and its surrounding medium. Even minor changes of these parameters can cause measurable changes in the whispering gallery mode spectra, offering a precise optomechanical sensing platform. At HumarLab, we integrate these devices into (bio)materials for investigating material properties and developing new methods. I will present two new methods, which utilize droplet microcavities: 1) measuring interfacial tension between immiscible liquids, and 2) measuring material properties and forces in soft and biological materials.

You are cordially invited to attend.