

Fizički odsjek, PMF, Sveučilište u Zagrebu  
Bijenička cesta 32

---

## Seminar Fizičkog odsjeka

---

Time	Location
Tuesday, 25 <sup>th</sup> October 2022, 14:15	F08

### **Properties of ionized gas in gas-stripped and jellyfish galaxies in clusters**

**Neven Tomičić**

Department of Physics and Astronomy, University of Florence, Italy

The evolution of galaxies are strongly affected by external forces, and can experience various effects while collapsing into galaxy clusters. Probing the interstellar medium of infalling galaxies can show us such processes in various ways. One important component of the interstellar medium is the diffuse ionized gas (DIG), for which measures of a proper fraction in gas emission can affect our view of gas properties across gas-stripped galaxies. During my first post-doc in Padova, we analyzed the gas properties of the dense ionized gas and the DIG across galaxies at different stripping stages while infalling to galaxy clusters (from non-interacting to "jellyfish" galaxies). We utilized optical IFU observations of 71 gas-stripped and control galaxies from the GASP survey. I will show how I measured the fraction of the diffuse emission for the survey, and compared the gas metallicities and ionization parameter between dense and diffuse gas. We also investigated the sources of ionization of the gas in disks and stripped tails, and the physical processes leading to them. I will show our finding that the DIG in the tails is at least partly ionized by a process other than star formation, probably by mixing, shocks, and accretion of inter-cluster and interstellar medium gas.

Voditelji seminara FO  
Sanjin Benić i Damjan Pelc