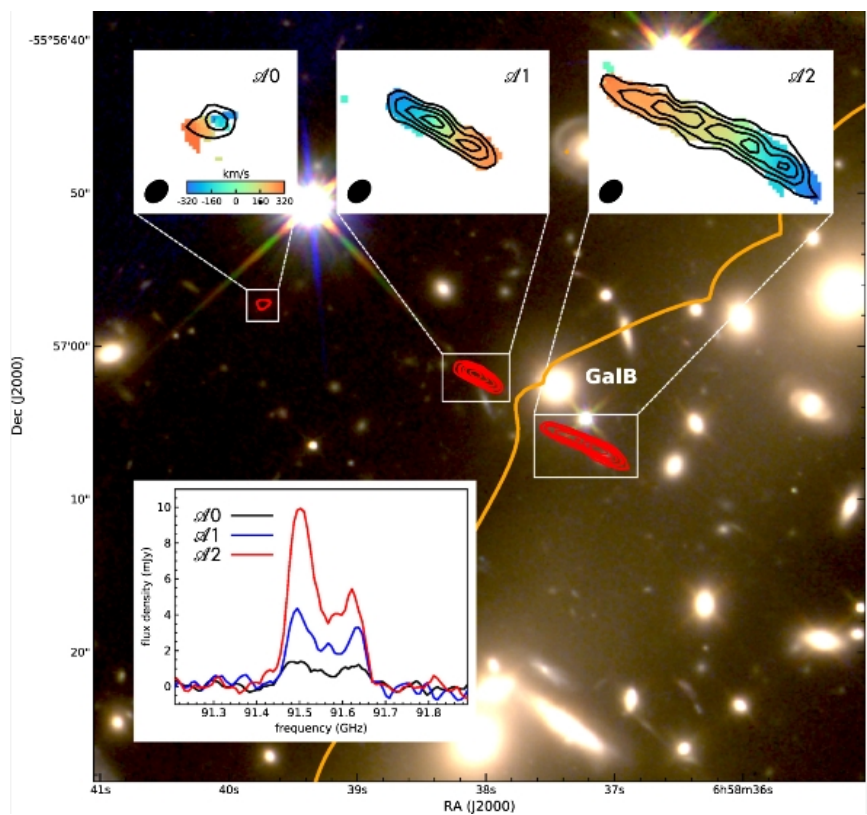


Seminario

Miércoles 29 de agosto, 2018, 11 hrs (PST), Auditorio IA-Ensenada

Una gaviota que hace verano?



Mérito: NASA

Dr. Tomás Verdugo (IA-ENS)

We present Atacama Large Millimeter/submillimeter Array measurements of the “Cosmic Seagull,” a strongly magnified galaxy at $z = 2.7779$ behind the Bullet Cluster. We report CO(3–2) and continuum 344 μm (rest-frame) data at one of the highest differential magnifications ever recorded at submillimeter wavelengths (μ up to ~ 50), facilitating a characterization of the kinematics of a rotational curve in great detail (at ~ 620 pc resolution in the source plane). We find no evidence for a decreasing rotation curve, from which we derive a dynamical mass of $(6.3 \pm 0.7) \times 10^{10} M_{\odot}$ within $r = 2.6 \pm 0.1$ kpc. The discovery of a third, unpredicted, image provides key information for a future improvement of the lensing modeling of the Bullet Cluster and allows a measure of the stellar mass, $1.6 \times 10^{10} M_{\odot}$, unaffected by strong differential magnification.