

## **A new OSIRIS/GTC and IDS/INT spectroscopic survey of young stars in the $\sigma$ Orionis cluster.**

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### **Abstract**

The young  $\sigma$  Orionis cluster in the Ori OB 1b association is one of the most important clusters for understanding the stellar and substellar formation and evolution. In this work, we used 197 low-resolution optical spectra of 167 stars. We determined spectral types and measured Li I and H $\alpha$  equivalent widths (EWs). We used *Gaia* DR2 astrometry together with youth features indicators from literature to derive the true membership to the cluster. (See poster).