

Are the colors of Centaurs biased by underestimated coma contamination?

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Considering that Centaurs are transitional objects from the transneptunian populations to the Jupiter family comets and that about 10 % of the population showed comet-like activity, their investigation can provide key information upon the compositional gradient and evolutionary effects in the outer solar system. In particular, the origin of the well-known color bimodality of Centaurs still represents a source of debate: some authors think that it may be due to different primordial compositions, while others are more in favor of recent evolutionary processes. Unfortunately, until now, only a few tens of Centaurs have been physically characterized, over a known population of about two hundred objects. Hence, using different telescopes (mainly TNG and NOT in La Palma), we started a campaign to obtain multi-band deep photometry of tens of targets, in order to estimate the real fraction of active Centaurs and derive the relationships between activity, surface colors, and dynamical properties. Our preliminary results will be presented and discussed.