

Nicolas Martin

Talk Title: Faithful extraction of the PAndAS Andromeda stellar halo and direct comparison with the Aquarius simulations

Talk Abstract: I will present the properties of the stellar halo of the Andromeda galaxy extracted from PAndAS, a deep photometric survey of the whole region within 150 kpc of this large spiral galaxy. Stemming from a faithful modelling of the distribution of the location and color-magnitude information of the 10 million potential M31 stars PAndAS, this study provides the most in-depth view of a stellar halo, down to surface brightnesses of ~ 36 mag/arcsec². In addition, I will present a direct and *quantitative* comparison of these observations with "observations" of the stellar halos of the Aquarius simulations, processed in exactly the same way. Although observations and simulations show broad agreement, there are significant differences between the two, which I will highlight during my talk.