

In this talk on the Andromeda (M31) galaxy, I will present the results from a homogeneous extended survey of Planetary Nebulae covering the entire disc and inner halo of M31 out to 50 kpc radius. Taken jointly with observational results from previous extensive investigations, these findings support a recent ( $\sim 2.5$  Gyr), massive (1:4 mass ratio) accretion event from a satellite infalling along the Giant stellar stream, in a nearly radial orbit. This tumultuous recent past of Andromeda is very different from our own Milky Way galaxy, that experienced a rather quiescent evolution in the last 8 Gyrs. I will present the evidence for a younger thin and older thicker disc component in M31 and present the age-velocity dispersion relation at the corresponding radial distance of the solar neighborhood in M31. Then I explore the chemical composition of these discs using Oxygen and Argon element abundance. The two kinematically distinct discs in Andromeda are also chemically distinct, 1) with the thin disc reaching higher Argon abundances than the thicker disc, 2) the thicker disc having a positive Oxygen and null Argon radial gradient, 3) while the thin disc presents a negative radial gradient in both Oxygen and Argon. The latter gradient is consistent with the negative Oxygen gradient previously measured for the HII regions. I then use the  $\log(\text{O}/\text{Ar})$  vs.  $(12 + \log(\text{Ar}/\text{H}))$  distribution of stars with different ages to constraint the chemical evolution of the parent stellar populations in the thin and thicker M31 discs. The distributions in this plane show that the chemical and also the structural properties of the thin and thicker discs in M31 are remarkably different from those determined for the Milky Way. I then investigate the stellar populations and kinematics of the inner halo substructures - NE and W shelves, Giant stellar stream and G1 clump - and compare them with the detailed predictions from simulations of a major merger event in Andromeda. The goal is to understand whether it is a wet or a dry merger, and to further constrain the pre-merger M31 disc population and that of the satellite as well.