
Velocity dispersion profiles of NewHorizon galaxies

San Han^{*1}, Sukyoung Yi², and Sree Oh^{3,4}

¹Yonsei University – South Korea

²Yonsei University – 50 Yonsei-ro, Seoul 03722, South Korea

³ARC Centre of Excellence for All Sky Astrophysics in 3 Dimensions – Australia

⁴Australian National University – Australia

Abstract

In the recent IFU studies, galaxies have been reported to show different types of velocity dispersion (σ) profiles. We use NewHorizon simulation to measure σ profiles and track their origins. First, we found a mass dependence on the slope of the σ profile that is consistent with IFU studies. In addition, we found that the σ profile gets shallower as accretion fraction increases, but it is in-situ stars that shapes such a trend. A detailed analysis is still required.

*Speaker