Unveiling the hidden supernova population in local LIRGs with NIR/Radio observations

Rubén Herrero-Illana¹, Miguel Ángel Pérez-Torres¹, and Antxon Alberdi¹

Abstract

The dust enshrouded environments of Luminous Infrared Galaxies (LIRGs), and especially of their nuclear regions, prevents the direct detection of supernovae in the optical. Radio observations are unaffected by dust extinction, allowing for the detection of most of these supernovae, thus probing their massive star formation rate. In addition, complementary observations in the near IR can help us to understand the nature of these phenomena and derive properties of the regions where they occur.

 $^{^{1}}$ Instituto de Astrofísica de Andalucía (IAA-CSIC). Glorieta de la Astronomía, s/n, 18008, Granada (Spain).