

Interacting galaxies in 3D: Three case studies.

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Abstract. We present 3D observations of three interacting galaxies in order to derive their extended kinematics and to trace events such as violent star-formation (SF), mass-transfer, structure perturbation and the presence of energetic sources induced by the interacting processes.

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1. Introduction

External perturbations and induced star formation. We present scanning Fabry-Perot interferometric observations of a pair of starburst galaxies. We derived the velocity field of each galaxy and compared them with morphological features related to SF phenomena.

Kinematics of an "isolated" galaxy. We also study the kinematics of an apparently isolated LIRG galaxy. We find double H α profiles that could be related to an infalling satellite triggering an intense SF event.

Energetic phenomena in interacting galaxies. Finally we present an IFU study of the surroundings of an elongated ultra-luminous X-ray source in an interacting galaxy pair (Rosado, Ghosh & Fuentes-Carrera 2008) in order to trace particular motions of the ionized gas around this source.

2. Conclusions

3D observations of galaxies enable us to match the motions of stars and gas with different morphological structures. In the case of interacting galaxies these studies allow us to trace the effects of the interacting process in the evolution of these systems.

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References

Rosado, M., Ghosh, K., & Fuentes-Carrera, I. 2008, *AJ*, 136, 212