THE LOCAL GROUP IN THE ILLUSTRIS SIMULATION

Jaime E. Forero-Romero

Departamento de Física, Universidad de los Andes, Cra. 1 No. 18A-10, Edificio Ip, Bogotá, Colombia Submitted for publication in ApJ

ABSTRACT

We present the properties of systems ressembling the Local Group (LG) at redshift z=0 in the Illustris simulation. We find 51 LG-like systems in the simulation volume. Subject headings: methods: numerical

1. INTRODUCTION

Vogelsberger et al. (2014)

2. SIMULATION DESCRIPTION

3. OBSERVATIONAL CONSTRAINTS

4. RESULTS

4.1. Dark Matter Content

4.2. Baryonic Budget and morphology

4.3. Star formation rate and magnitudes

 $4.4.\ Kinematics$

4.5. Galaxy Satellites

4.6. Alignments with the Cosmic Web

5. DISCUSSION

REFERENCES

Vogelsberger, M., Genel, S., Springel, V., Torrey, P., Sijacki, D., Xu, D., Snyder, G., Nelson, D., & Hernquist, L. 2014, MNRAS, 444, 1518