

Poster

Orientation of the spins of the edge-on galaxies relative to the filaments

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We analyze the spin orientation of edge-on galaxies relative to the filaments of the large-scale structure of the Universe. We use the Revised Flat Galaxy Catalog, which contains 4236 flat galaxies with an axes ratio $a/b > 7$. This simple criterion selects mostly late-type galaxies (Sc, Sd) oriented edge-on to a line of sight. The edge-on galaxies allows us to determine a spin orientation with high accuracy. We found very weak indication of an alignment of the spins with respect to the filaments on the 2-sigma level. We tested different dependancies of the alignment from galaxy properties, including the galaxy brightness, the distance from a filament, the redshift and the axes ratio a/b . The effect is most pronounced for the nearby ($z < 0.03$) and the most thin galaxies ($a/b > 10$).