

Do we see the same universe in far-infrared and in far-ultraviolet?

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Abstract

We have built large samples of nearby galaxies carefully selected in FIR (60 μm from IRAS) and in FUV (1530 \AA from GALEX) with the aim to have reference samples for comparison with high redshift galaxies selected in the same way. We have also studied the star formation histories of the galaxies we have selected either in FUV or in FIR. In order to check if we sample or not the same galaxy populations in FIR and in FUV, we have performed several statistical analyses. We will present our results about the luminosity functions, the specific star formation rate (star formation rate per unit mass) and the ratio of the total IR emission to the FUV one within our galaxy samples. A comparison with high redshift samples selected in the same way will be performed.