Identification of Faint Galaxies behind Another Galaxy

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Galaxies seen through another galaxy provide valuable indication about the extinction property of the foreground galaxy. However, it is difficult to identify the faint galaxies in irregular, patch, and crowded stellar field of the foreground galaxy. Using SExtractor software, we attempt to quantify the efficiency of galaxy identification under various conditions of stellar crowdness and signal-to-noise ratio of the image data. We used a set of artificial images, constructed to have different densities of stars and galaxies. The same technique is also applied to a sample of MACHO images for our long term goal to study the extinction distribution within the Large Magellanic Cloud.