

PREDICTING REDSHIFTS & MORPHOLOGY OF GALAXIES USING FLUX MAGNITUDES

*Application of Classification & Regression with Comparative Analysis
between Decision Tree & Random Forest*

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Dissertation submitted for the fulfilment
of BSc (Honours) Computing degree.

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About the Galaxy on the Cover Page

I have used the beautiful image of 'M100' Galaxy photographed by the Hubble Space Telescope & processed by Judy Schmidt. Majestic on a truly cosmic scale, M100 is appropriately known as a grand design spiral galaxy. It is a large galaxy of over 100 billion stars with well-defined spiral arms that is similar to our own Milky Way Galaxy. One of the brightest members of the Virgo Cluster of galaxies, M100 (alias NGC 4321) is 56 million light-years distant toward the constellation of Berenice's Hair (Coma Berenices). This Hubble Space Telescope image of M100 was made in 2009 and reveals bright blue star clusters and intricate winding dust lanes which are hallmarks of this class of galaxies. Studies of variable stars in M100 have played an important role in determining the size and age of the Universe. If you know exactly where to look, you can find a small spot that is a light echo from a bright supernova that was recorded a few years before the image was taken.

Image Credit

M100: A Grand Design Spiral Galaxy

Image Credit: Hubble Legacy Archive, NASA, ESA - Processing &

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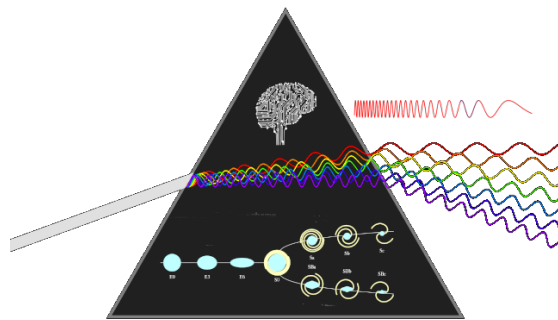
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Predicting Redshifts & Morphology of Galaxies with Flux Magnitudes

Application of Regression & Classification with Comparative Analysis between Decision Tree & Random Forest as Ensemble Classifier.



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