

GALAXY MORPHOLOGY CLASSIFICATION USING MODERN DEEP LEARNING ARCHITECTURES

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SUMMARY

To address the challenges of processing large volumes of astronomical data, this study investigates the binary morphological classification of galaxies using the Galaxy Zoo 2 dataset. By comparing two advanced models with fundamentally distinct architectures—a Convolutional Neural Network (CNN) and a Vision Transformer (ViT)—this work evaluates their predictive accuracy and computational efficiency for applications in modern astronomy.

DATA AND MODELS



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SERBIAN
ASTRONOMICAL
CONFERENCE

The images and ground-truth labels used in this study originate from the Galaxy Zoo 2 project, providing the target classifications for supervised learning. The deep learning models evaluated in this research are ResNet50 and a Vision Transformer (ViT).

EARLY RESULTS

