

The relation between stars and gas in distant galaxies

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Level 4 Project, MPhys Theoretical Physics

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Observing any galaxy in the universe will yield the fact that it contains stars and also gas. The dynamics of both can be explored by observing galaxies and collecting spectroscopic data.

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Contents

1. Introduction	2
A. Galaxy classification	2
2. Data	2
A. Subsection heading	2
3. Analysis	2
4. Discussion	3
5. Conclusions	3
Acknowledgments	3
References	3
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1. INTRODUCTION

Amongst the different types of cosmic structure within our universe, galaxies can be seen as the island powerhouses of industry and activity. Containing countless stars, gas, dust, and dark matter [1], it would be difficult not to express the statement that the internal motions of these objects must be linked in some form of a galactic relationship.

By utilising astronomy's most powerful tool, observation, galaxies, their structure and the motions of the objects within them can be studied to a great depth. Say if we took optical measurements of the star population, then we can understand the potential age of the galaxy. [ref] Or if we wanted to know about the material composition or the distance to that galaxy, we could split the light which we receive in a spectrograph.

Gathering

A. Galaxy classification

Galaxies themselves can be grouped and categorised together in the *Hubble Sequence* or the *Hubble Tuning Fork*. With a horizontal handle and two prongs, the sequence itself does not show the evolution of the galaxies, rather it provides a way to view the possible different types of galaxies on one graph. [REF]

Hubble sequence.

What do I want to link into? Galaxies. Something to do with how they house stars and can lead to life. the importance of understanding their dynamics

What do I want to say with this? I want to introduce galaxies, the different types of galaxies, how they form, how they can be confused with other types of structure.

2. DATA

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A. Subsection heading

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3. ANALYSIS

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4. DISCUSSION

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5. CONCLUSIONS

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Acknowledgments

(OPTIONAL) The author would like to thank...

References

- [1] Bradley W. Carroll and Dale A. Ostlie. An Introduction to Modern Astrophysics. Pearson, 2nd edition, 2007.