

# Project Proposal

## A Fly-Through Visualisation of the Dark Energy Survey

Katherine Gray - 43911064  
Supervisor: Tamara Davis

### I. INTRODUCTION

The Dark Energy Survey (DES) is an astronomical imaging survey of the Southern Sky that has been running as an international collaboration since 2013 and is due to finish this year. The survey has been collecting and categorising data from thousands of supernovae and 300 million galaxies, with the ultimate goal of investigating dark energy and the acceleration of the universe [1]. My proposed project is to visualise this data by creating a video emulating an observer's point of view as they fly from Earth out to the furthest point of the survey. Some work has already been completed in this area [2, 3], but these visualisations have not used the same fly-through technique, nor have they had access to a complete set of data. I am to be able to create a visu-

alisation that is the however the fly-through approach of my project and a complete dataset will ensure that this project .

### II. PROJECT SIGNIFICANCE

### III. METHOD

### IV. EXPECTED OUTCOMES

### REFERENCES

- [1] Samuel Hinton, "DES+OzDES+SDSS Galaxies - 3D Visualization," (2017).
- [2] Ralf Kaehler, "DES Year 1 Mass Map Fly-Through," (2017).