

Guide for MSc thesis

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1. Content

The MSc thesis needs to feature an **abstract**, an **introduction**, a description of the **methods**, a presentation of the **results**, a **discussion**, and a **summary** as well as a list of **references**. You might also provide an **appendix** where you describe the codes used and/or programmed yourself and possibly provide supplementary plots and information.

Abstract

- 250-word summary of the thesis; needs to be both in English **and** Spanish.

Introduction

- The **introduction** needs to explain (to a fellow student, not to the committee!) the idea/history of the project, the relevant equations, and the theory behind the project in general. Further, give some motivation: “Why is this project interesting?”, “What has been done in the past?”, “What do we do differently/new?”, “What are its implications?” Give a general introduction into the field, and also mention of the objectives of the actual work (“What are the aims?”).

Methods

- In the **methods** section you need to explain what methods you have used, e.g. “What data has been used?”, “How was the data generated in the first place?”, “How did you reduce the data?”, “How did you analyse the data?”, “What codes have you used?”, etc.

Results

- In the **results** part you need to show (key) plots from your investigation and discuss them; you do not need to show all plots generated during the investigation, but you need to explain clearly all results you found. Note that every figure needs to have a proper caption and needs to be explained in the text.

Discussion

- In the **discussion** you basically interpret the results you obtained and put them into the context of the literature. Note, you might combine the results and discussion into one single section in case you prefer to present and immediately discuss your results.

Summary

- The **summary** should contain a brief summary of the main findings and your conclusions of the results. Also provide an outlook of what might need to be done next.

References

- Do not forget a **reference** list! And please note, no text can be copied without proper referencing: that would be considered plagiarism! Be aware that your MSc thesis might be processed with anti-plagiarism software.

Appendix

- Here you can provide supplementary information, e.g. describe the codes you used in more detail, further explain your data reduction strategy, show supplementary plots, etc.

2. Format

- You should use a font similar to Times New Roman 12pt with a spacing of max. 1.5 lines.
- Write your thesis in single column style (not double column like, for instance, used with MNRAS).
- Feel free to include a table of content, figure and/or table list (not mandatory tough).
- The preferred language of your thesis is English, but Spanish is also accepted.
- The main part of the TFM (excluding references and appendix, and the optional table of content and figure/table lists) should **not exceed 25 pages**.

3. Evaluation Criteria

Rúbrica para la valoración de los Trabajos Fin de Máster. Máster en Física Teórica, UAM.

Nombre estudiante:

Título TFM:

Director/Tutor TFM:

Contenido
Dominio técnico del tema en cuestión
Contribución personal original
Capacidad de poner el trabajo en contexto dentro de su campo de especialización (problemática y métodos de análisis directamente relacionados con el objeto de estudio)
Capacidad de poner el trabajo en contexto dentro de las ciencias físicas (motivación, metas y objetivos generales de su línea de investigación)
La bibliografía contiene referencias actualizadas
Valoración (0-50):

Presentación y defensa
La duración de la exposición se ha ajustado al tiempo establecido
Capacidad de expresar con claridad las ideas maestras del trabajo
Puntos de vista personales sobre el tema estudiado, tales como ideas con futuro, ideas sin futuro, estrategias de trabajo, etc.
Las respuestas a las preguntas del tribunal han estado bien argumentadas
Valoración (0-30):

Aspectos formales
La memoria se ajusta a la normativa del Máster en Física Teórica
Valoración (0-5):

Informe del Director
<i>Please write here a brief evaluation of the work justifying the mark given.</i>
Valoración (0-15):

Suma total (0-100):

4. Front Page

MSc in Theoretical Physics – Speciality Astrophysics
Academic Year: 20XX/YY

Title of your work

Your Name

Director(s): Name

Tutor: Name

Place: Department of Theoretical Physics, Faculty of Science



FACULTAD
DE CIENCIAS

Departamento
de Física Teórica



Titulo
subtitulo?

Harry Potter

Director
Prof. Dr. Dumbledore

Tutor
Por Si Acaso

Trabajo de Fin de Master en Fisica Teorica
Especialidad Astrofísica

Año académico 2021-2022

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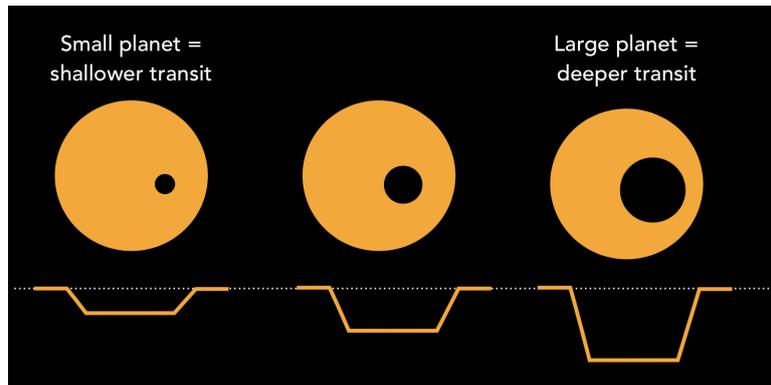


Figure 1: Diagram of the transiting planets. Image source: ?.

Object	radius (m)	mass (g)
test	5	78
test	3	90

Table 1: Here I write my caption

1 Introduction

This thesis revolves around the study of blablaba. The main body can be max. 25 pages (excluding table of contents, references, and the appendix).

1.1 Star Formation

Young Stellar Objects are those which have not yet begun nuclear fusion. In short, YSOs are divided in classes depending on the stage of their evolution, as can be seen in Fig. 1.

2 Sample/Methods

We use the data as specified in Table 1.

3 Results

4 Discussion

5 Summary

Appendix

blabla