

# Gravitational lenses

## Overview

The structure of this part of the course consists of eight sections which introduce different aspects of gravitational lensing studies. Within each of these sections you will find links to external websites which you should browse as part of your study of this topic.

Also included in the printed material is a photocopied article by Dennis Walsh on the discovery of the first gravitational lens whilst he was a member of staff at Jodrell Bank. This is an interesting story not only from a scientific viewpoint but also from the human interest perspective he provides. You can read this article from the following link to an Adobe acrobat pdf file:

[0957+561: The Unpublished Story by Dennis Walsh](#)

(from Gravitational Lenses, Proceedings of a Conference Held at the Massachusetts Institute of Technology, Cambridge, Massachusetts, in Honour of Bernard F. Burke's 60th Birthday, June 20, 1988)

There is also an in-depth review article available as several pdf files which covers nearly all of the topics including mathematical detail in some cases. You may wish to read this in parallel with the core web notes presented in the following sections.

1. [Pages 1 to 6.](#)
2. [Pages 7 to 12.](#)
3. [Pages 13 to 18.](#)
4. [Pages 19 to 24.](#)
5. [Pages 25 to 30.](#)
6. [Pages 31 to 36.](#)

There are a number of points in the review article and in the web notes where reference is made to publications in the literature. You may be interested in accessing the [Astrophysics Data Service \(ADS\)](#) of which there are several mirrors around the world. The link here points at the UK mirror. This allows you to search the astronomical literature in various ways, for example by author, keywords or object. Abstracts can be viewed and access is provided to scanned copies of papers except for the last few years where a subscription to the journal is required. Another free service is the [astro-ph preprint service](#) in which pre-publication copies of papers can be viewed.

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