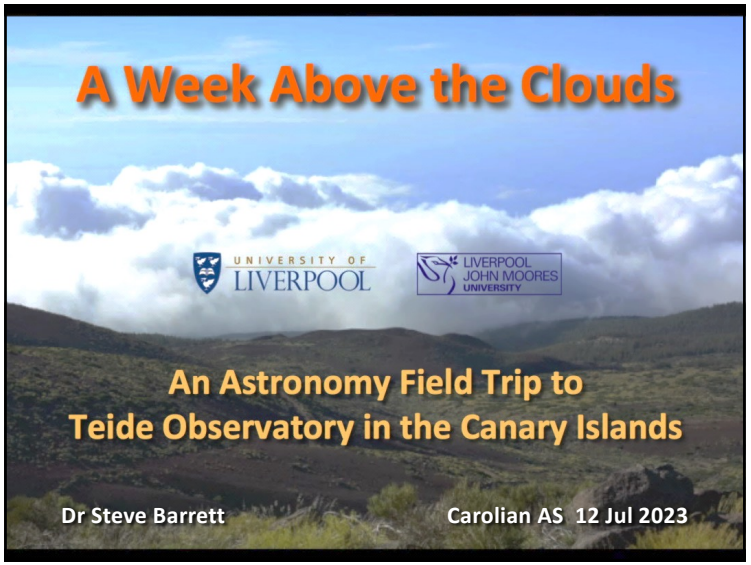
A Week Above the Clouds
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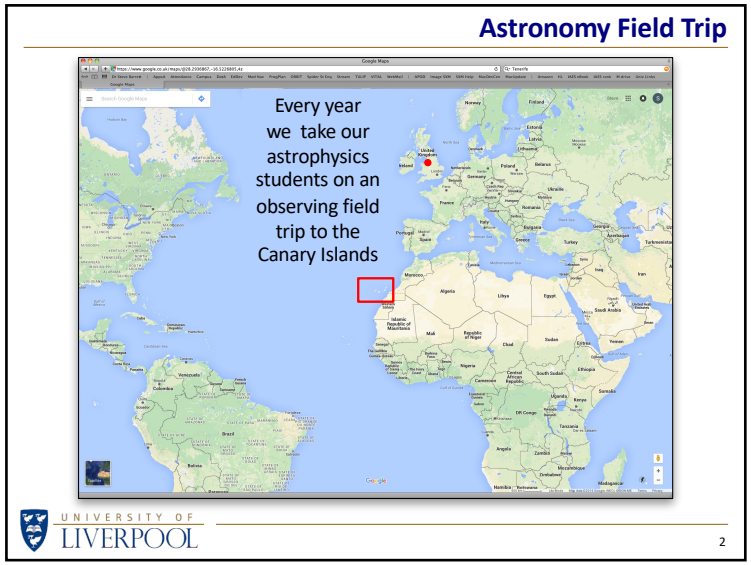
LIVERPOOL JOHN MOORES UNIVERSITY
An Astronomy Field Trip to
Teide Observatory in the Canary Islands
Dr Steve Barrett
Carolian AS 12 Jul 2023


Astronomy Field Trip
Every year we take our astrophysics students on an observing field trip to the Canary Islands
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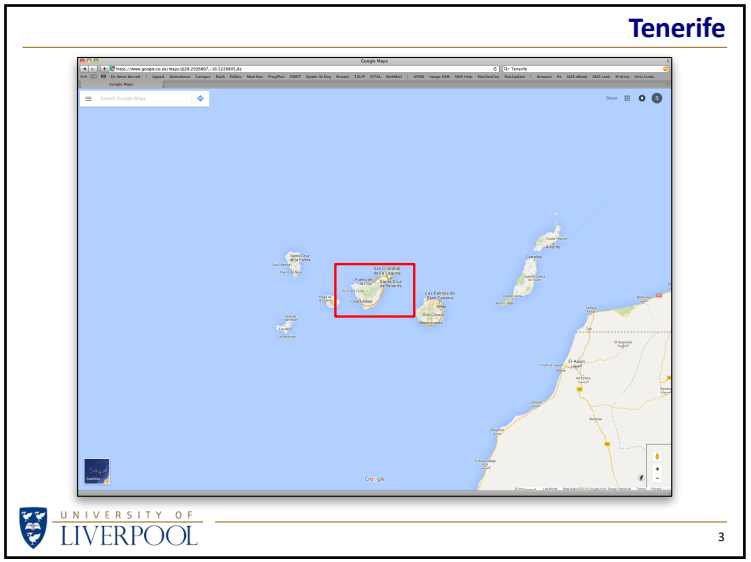
Tenerife
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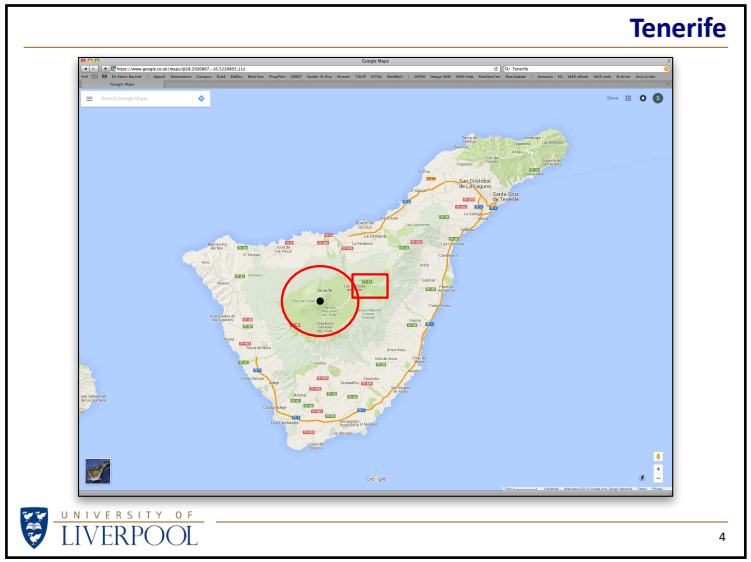
3


Tenerife
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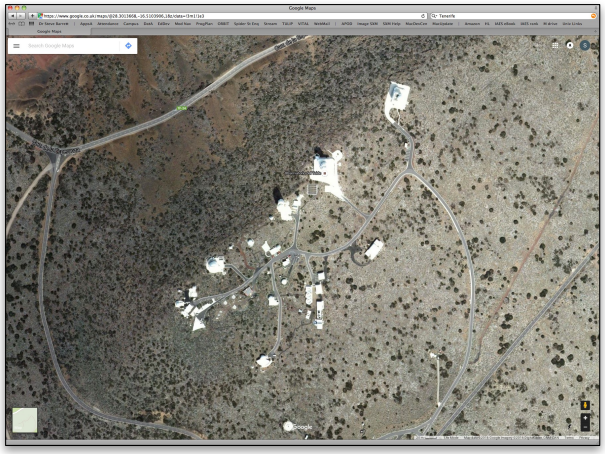
4

Observatory Site



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Observatory Site

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Mount Teide

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Teide Observatory

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Teide Observatory

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Sunset

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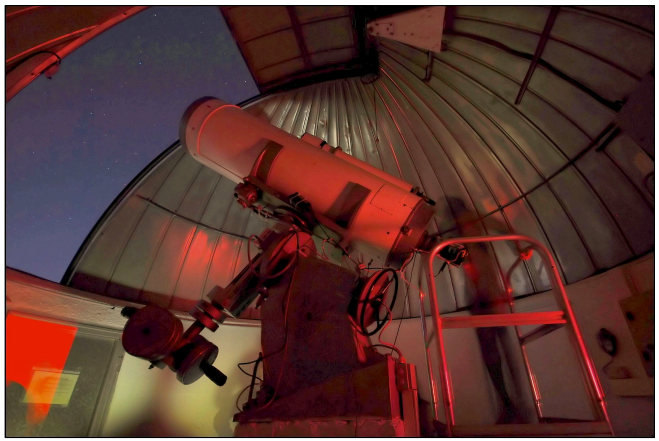
Mons Telescope



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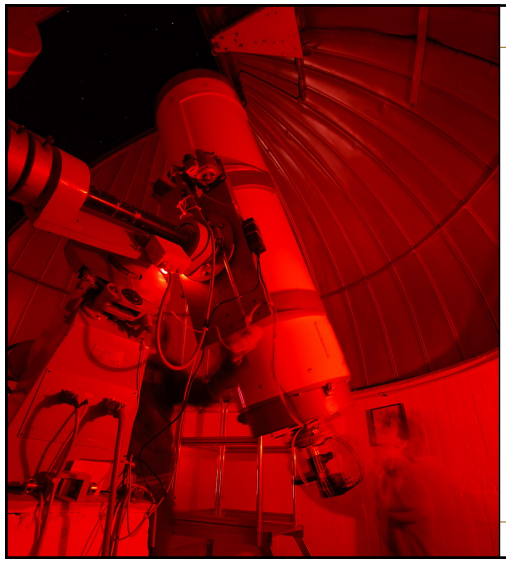

Mons Telescope

20" ex-research telescope

Moved from its original home at Mons University, it is now used for teaching

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Students At Work

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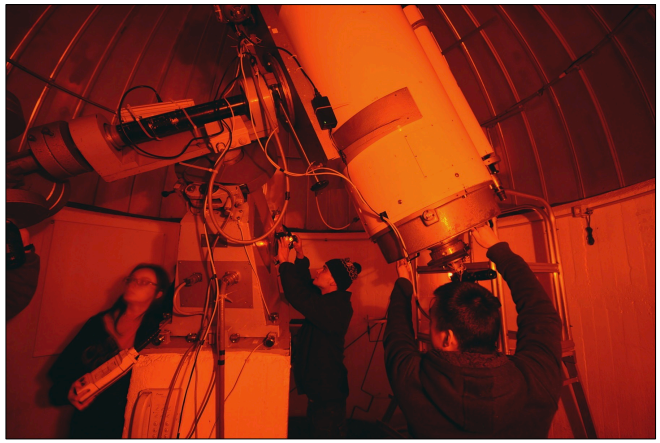
Students At Work



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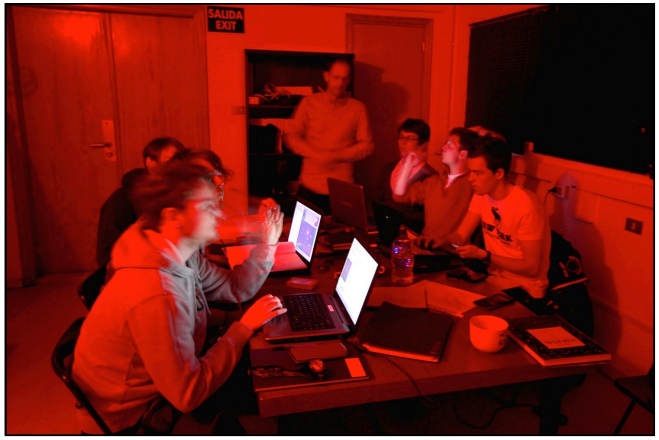
In the Warm Room



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What Do the Students Observe?

The students are expected to calculate the coordinates of the objects that they want to observe and then point the Mons telescope, using setting circles, to an accuracy of a few arc-min.

Working in teams of 3 or 4, the students decide on what type of objects they want to study during the week. Examples are:

Star Clusters: Measuring star intensities with different colour filters to generate Hertzsprung-Russell diagrams

Planetary Nebulae: Revealing the nebulae structure visible with hydrogen (Hα) or oxygen (O-III) filters

Galaxies: Identifying star formation regions in spiral galaxies using a hydrogen (Hα) filter

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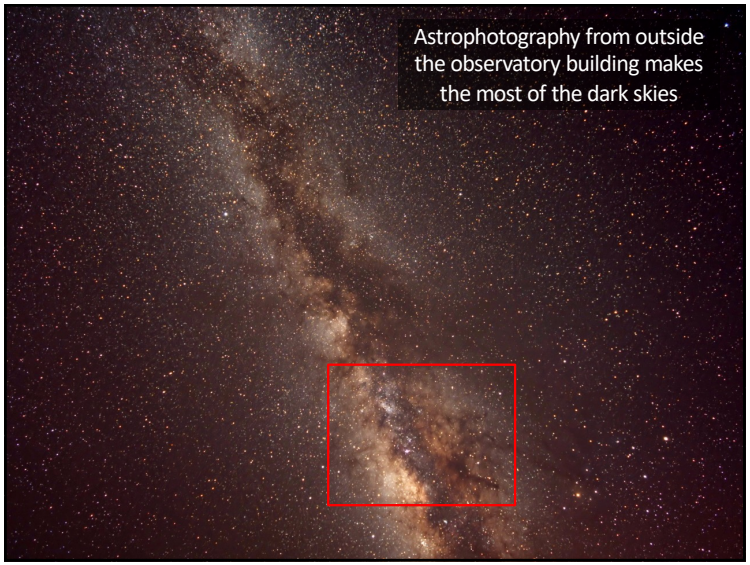
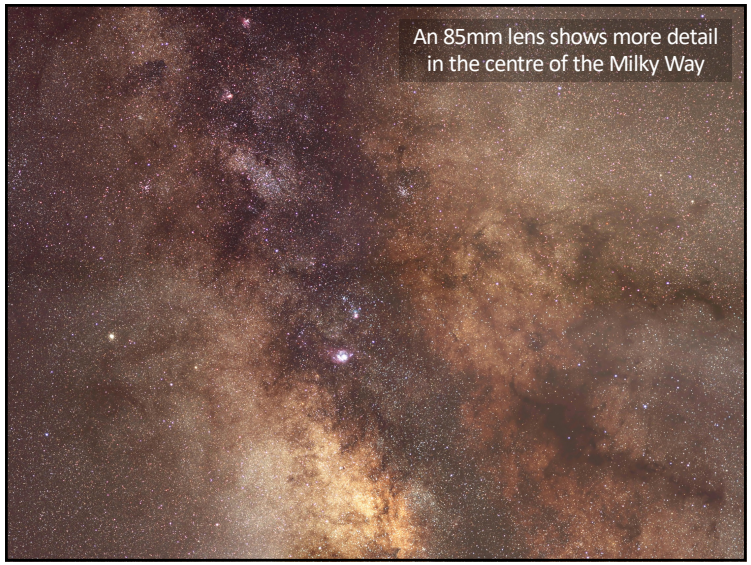
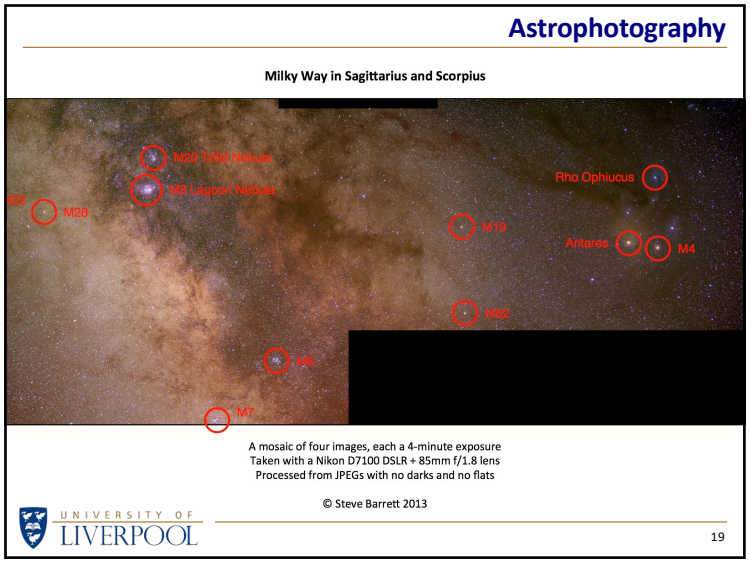

Astrophotography from outside
the observatory building makes
the most of the dark skies


An 85mm lens shows more detail
in the centre of the Milky Way


Astrophotography
Milky Way in Sagittarius and Scorpius
M20 Trifid Nebula
M8 Lagoon Nebula
M22
M28
Rho Ophiucus
M19
Antares
M4
M62
M6
M7
A mosaic of four images, each a 4-minute exposure
Taken with a Nikon D7100 DSLR + 85mm f/1.8 lens
Processed from JPEGs with no darks and no flats
© Steve Barrett 2013
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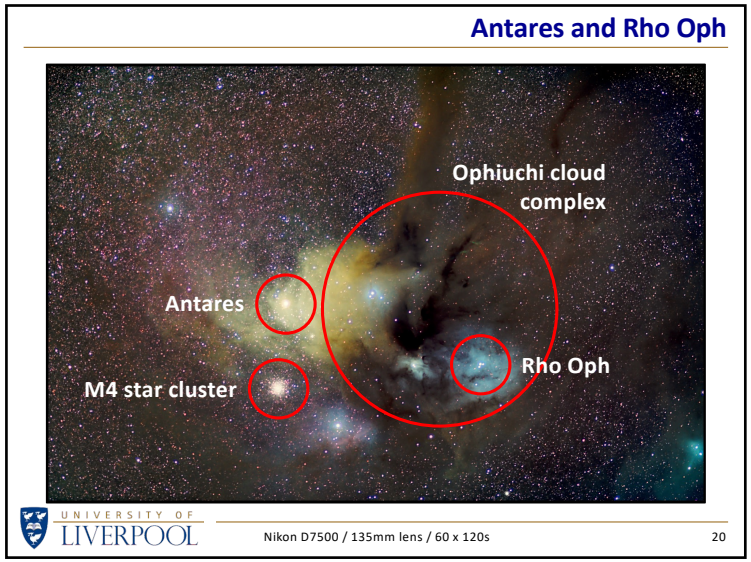
Antares and Rho Oph
Ophiuchi cloud
complex
Antares
M4 star cluster
Rho Oph
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Nikon D7500 / 135mm lens / 60 x 120s
20


Star Trails
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22


Sunrise
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23


Breakfast
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Liverpool Telescope

The Liverpool Telescope is on the neighbouring island of La Palma

A research class telescope with a 2 m mirror that can be used for 20% of the time by students and schools around the world

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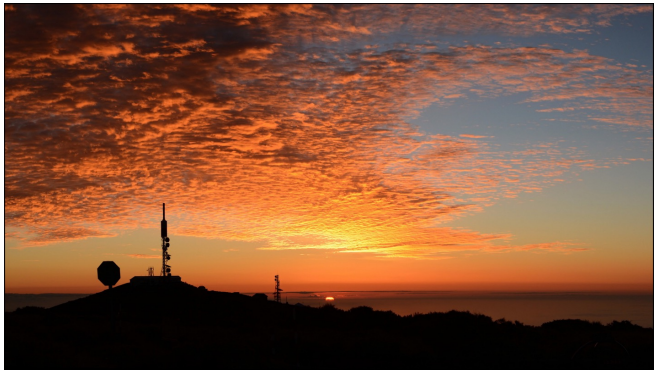
The Best Laid Plans …



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The Best Laid Plans …

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