Astrophotography for beginners



Zoom/Telescopic astrophotography

Course plan

Week	First half of evening	Break	Second half of evening
1	Introduction & basics	jma	Basics inside PHP
2	Wide angle photography	8:30	Targets in the planetarium
3	Processing Software	брт-	Sun, Moon & planets
4	Small 'scope observing (may change due to weather)	nəqc	Small 'scope observing
5	Observing with 28"	fe is c	Video astronomy (time permitting)
6	Zoom lenses & telescopes	Ca	Participants photo's





Astrophotography with a zoom lens



Astrophotography with a zoom lens

Astrophotography with a zoom lens





Astrophotography with a zoom lens – Jupiter and its moons

Astrophotography with a zoom lens - Mars and Regulus





Astrophotography with a zoom lens – Mars and Regulus

• 30 April 2009

• 29 April 2009

• 28 April 2009

The Pleiades star cluster lies close to the ecliptic – the plane of our solar system – so solar system objects past the cluster a few times a year. e.g. Mercury, Venus, Mars or the Moon.

The Pleiades is larger than the Moon, so ideal for a zoom lens.

<< Mercury



The Pleiades and Venus through a zoom lens

The Pleiades and Mars through a zoom lens



A camera tracking mount

Periodic error on a tracking mount



Double cluster in Perseus – with a zoom lens











Alt-Az mounts are not suitable for astro-photography, as the field-of-view rotates



Equatorial mounts and wedges are the most suitable for astro-photography

Telescopic view of the Moon

Telescopic view of the Moon Use *Registax* to stack images from a movie to produce one good photograph



• This time-lapse movie was produced by repeatedly taking 2 minute long movies with a webcam looking through a telescope. Each movie was processed into a single image using Registax. Finally, the (approx.) 25 images were turned into a time-lapse movie

Telescopic view of the Orion Nebula (short exposure)

Telescopic view of the Orion Nebula (30 short exposures)

Yuugi Kitahara via APOD



Winner of the APotY 2010 deep-space category



Expensive, high-quality telescope tracking mount – the Paramount ME







ASTRONOMY PHOTOGRAPHER OF THE YEAR

Collins

SIR PATRICK MOORE