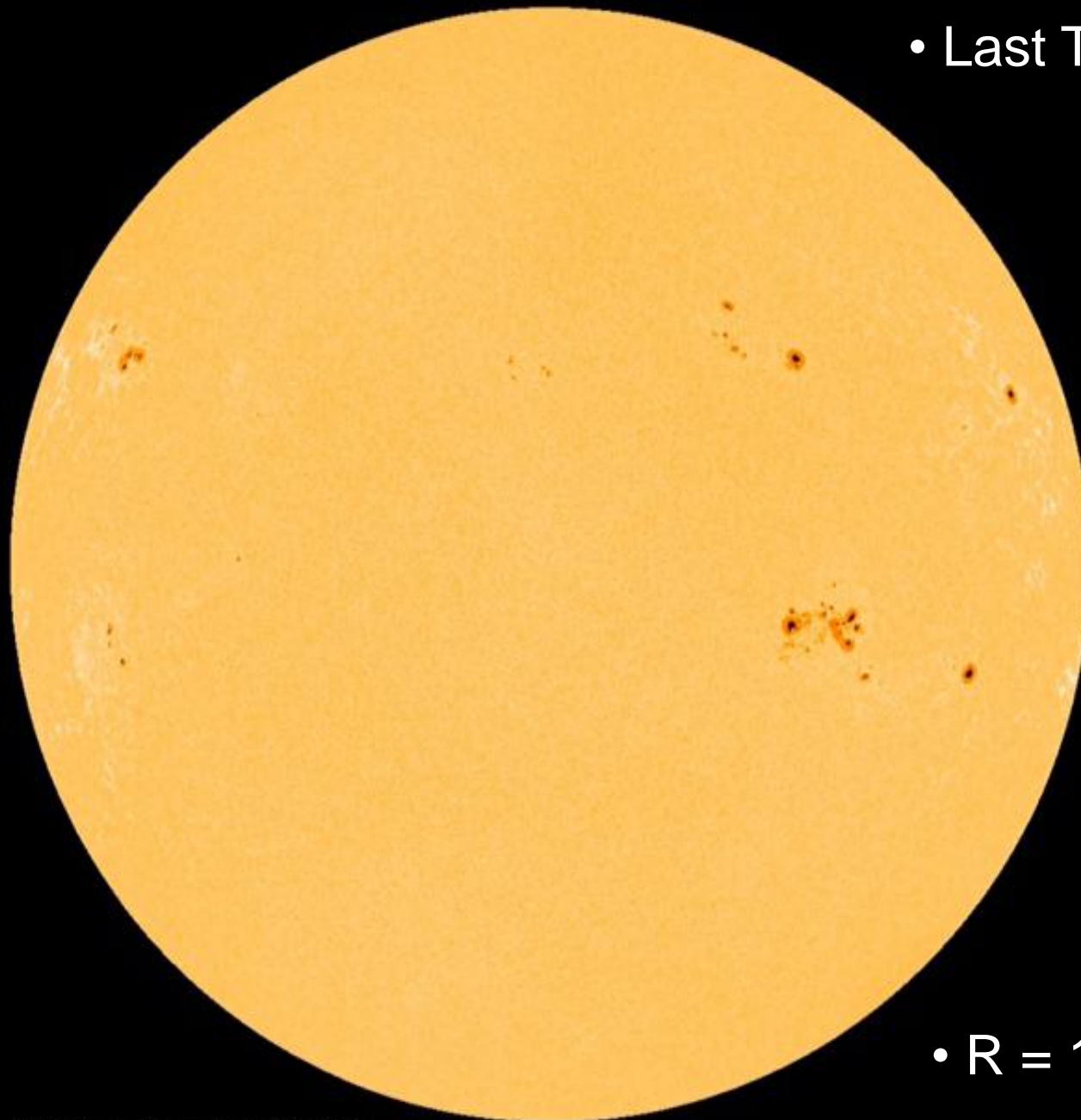


What's Up?

2025 March 24 to April 28

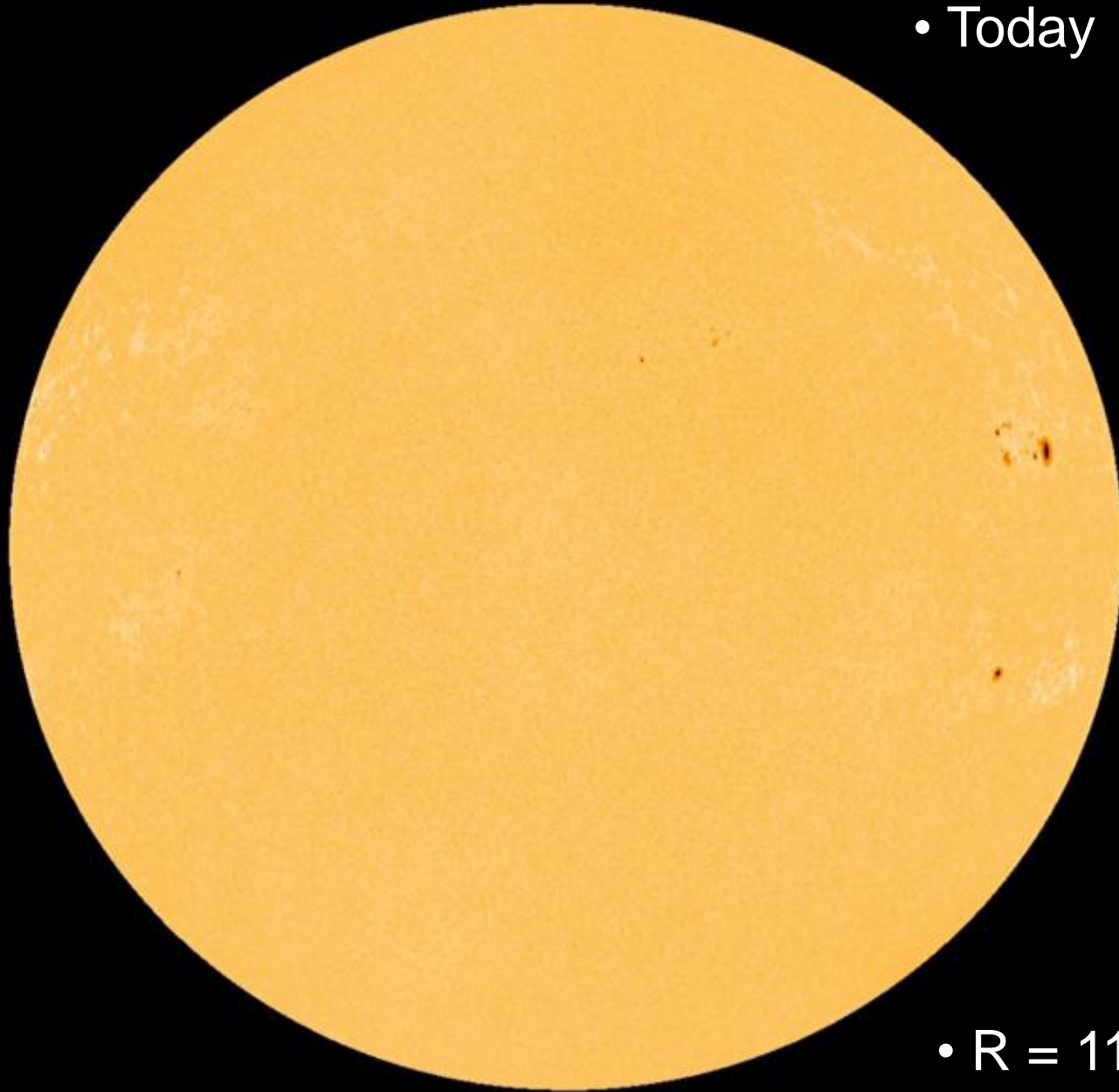
Bill Barton, FRAS

• Last Time



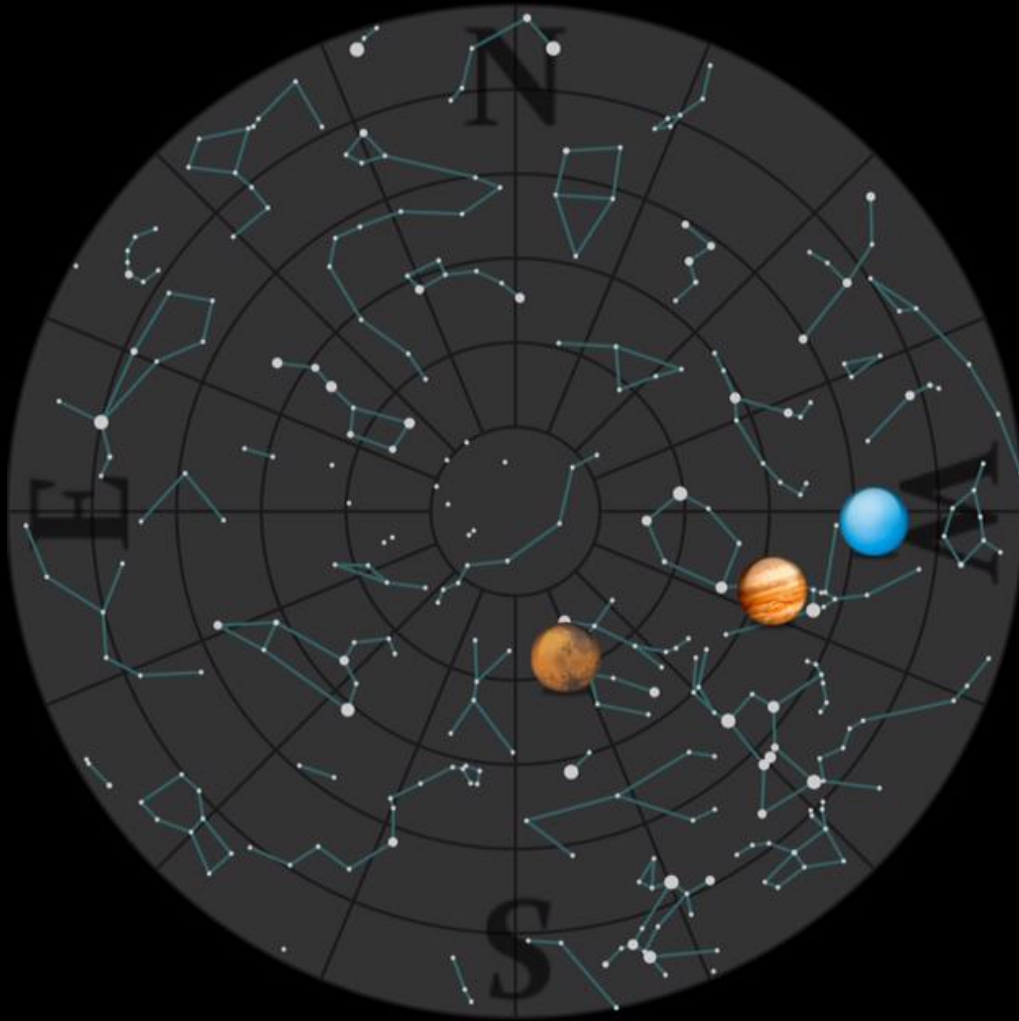
• R = 186

• Today

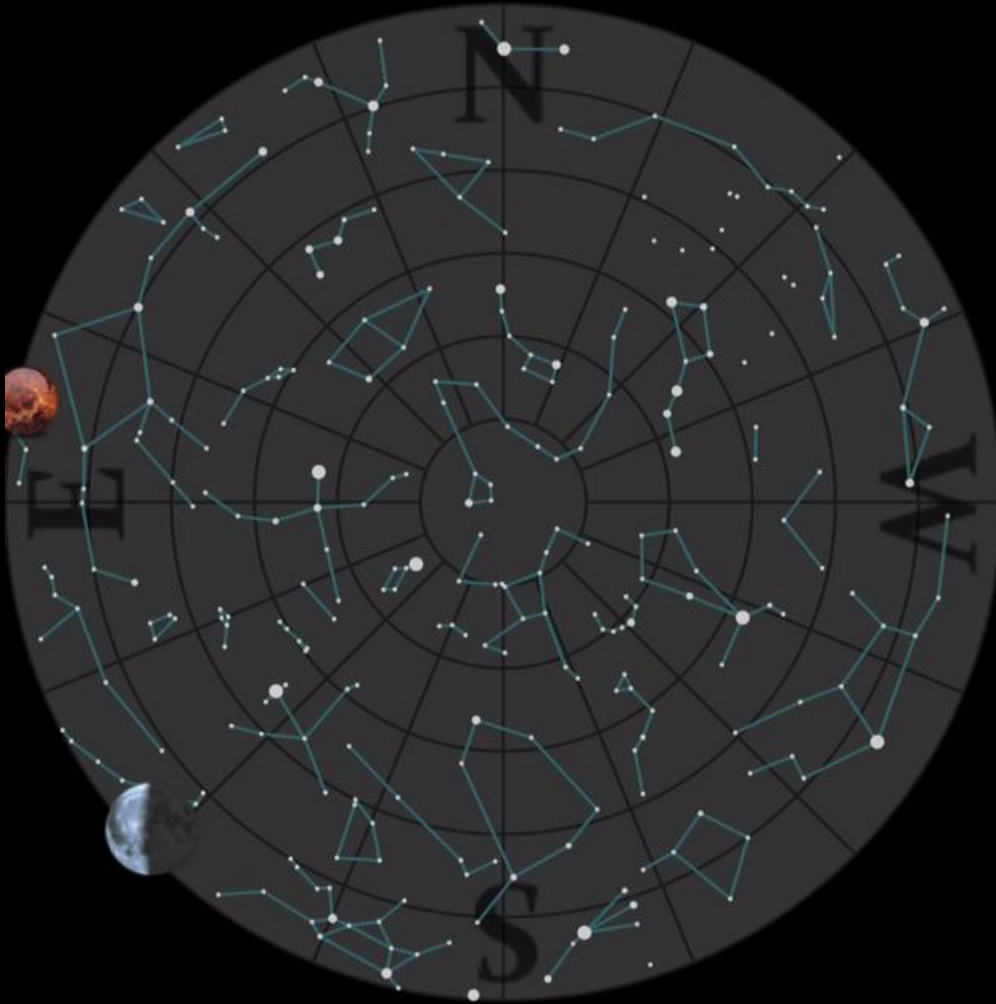


• $R = 110$

- The Sky 20:00
Tonight







- The Sky 06:00
Tomorrow



Inner Solar System

- Sun
 - Declination increasing. Solstice June 21
 - Last sunspot min., Apr. 2020, max., just passed?
- Mercury
 - Inferior conjunction March 24 (today)
 - Then in the morning sky with greatest elongation on April 21 (27°), currently 3° , +6 mag
 - Superior conjunction May 30
 - Today, rise 05:30, transit 11:50, set 18:20
- Venus
 - Inferior conjunction March 23 (yesterday)
 - In the morning sky, greatest elongation May 31, (46°) currently 9°
 - today, rise 04:50, transit 11:40, set 18:20

Earth

- Time
 - 00:00UT \approx 12:10ST today
 - Today, sunrise 05:45, transit 12:00, sunset 18:15
 - End of period, sunrise 05:30, transit 12:50, sunset 20:15
 - BST begins, 01:00 Sunday March 30
- Moon
 -  New, **March 29**, & April 27
 -  First Quarter, April 05
 -  Full, April 13 ('seed or egg' Moon)
 -  Last Quarter, April 21
- Meteors
 - none of note this period

Partial Solar Eclipse of 2025 Mar 29

Geocentric Conjunction = 11:46:09.2 UT J.D. = 2460763.990384

Greatest Eclipse = 10:47:18.4 UT J.D. = 2460763.949519

Eclipse Magnitude = 0.9361 Gamma = 1.0405

Saros Series = 149 Member = 21 of 71

Sun at Greatest Eclipse
(Geocentric Coordinates)

R.A. = 00h33m03.1s

Dec. = +03°33'54.8"

S.D. = 00°16'01.1"

H.P. = 00°00'08.8"

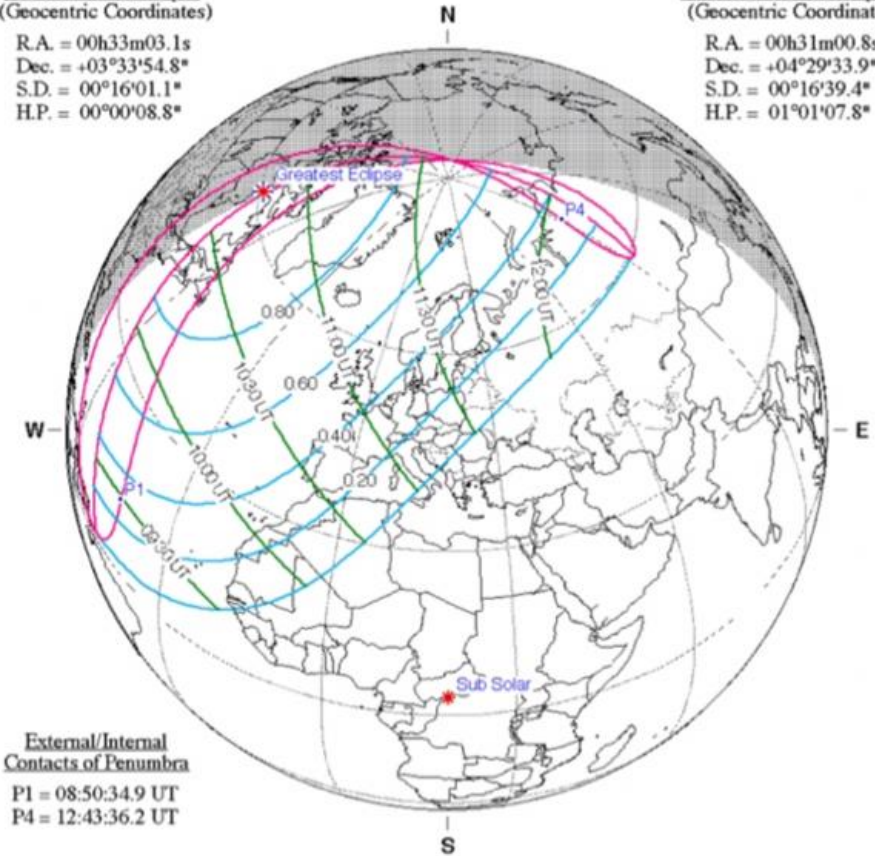
Moon at Greatest Eclipse
(Geocentric Coordinates)

R.A. = 00h31m00.8s

Dec. = +04°29'33.9"

S.D. = 00°16'39.4"

H.P. = 01°01'07.8"



External/Internal
Contacts of Penumbra

P1 = 08:50:34.9 UT

P4 = 12:43:36.2 UT

Ephemeris & Constants

Eph. = Newcomb/ILE

$\Delta T = 82.3$ s

$k1 = 0.2724880$

$k2 = 0.2722810$

$\Delta b = 0.0^\circ$ $\Delta l = 0.0^\circ$

Geocentric Libration
(Optical + Physical)

$l = -2.00^\circ$

$b = -1.35^\circ$

$c = -21.73^\circ$

Brown Lun. No. = 1265



F. Espenak, NASA's GSFC - Fri, Jul 2,

sunearth.gsfc.nasa.gov/eclipse/eclipse.html

- Saturday, March 29
- Sunrise, 05:35
- Eclipse start, 10:16
- Eclipse maximum, 11:06 (30%)
- Eclipse end, 11:56
- Sun transit, 11:58

Moon Occults The Pleiades

- New Moon, March 29, First Quarter, April 5
- Tuesday April 1 (three day old Moon)
- Moon transit, 15:45
- Sunset, 19:30
 - Electra (17 Tau) 21:51-22:44
 - Celaeno (16 Tau) 22:05?, graze
 - Merope (23 Tau) 22:25-23:08
 - Maia (20 Tau) 22:40?, graze
 - Alcyone ($\eta/25$ Tau) 22:48-23:39
 - Pleione (28 Tau) 23:25?
 - Atlas (27 Tau) 23:27?
- Moon set, 00:35 (Apr 2)
- above times in BST
- will occur multiple times in 2025



Outer Solar System

- Mars
 - Conjunction January 09, 2026. Today, rise 10:50, transit 19:15, set 03:45
- Jupiter
 - Conjunction June 24. Today, rise 08:25, transit 16:35, set 00:45
- Saturn
 - Conjunction March 12. Opposition September 21. Today, rise 05:40, transit 11:20, set 17:00
- Uranus
 - Conjunction May 17. Opposition November 21. Today, rise 07:25, transit 15:10, set 22:55
- Neptune
 - Conjunction March 19. Opposition September 23. Today, rise 05:50, transit 11:45, set 17:40

OASI Events

- Saturday March 29, from 09:30
 - Partial Solar Eclipse observing, here, weather dependant
- Monday April 21, from 20:00
 - 'Is Interstellar Travel Possible?', Les Johnson, Zoom
- Friday April 25, from 19:45
 - 'Robotic Telescopes', Nik Szymanek, The Lantern Room, St. Augustine's Church, also on Zoom

- Observatory Maintenance
 - School Easter Holiday, Thursday & Friday, 10-11 April, help needed!

Local Societies Events

- DASH (Darsham Village Hall, 7:00pm, Sundays)
 - March 30, & April 27, observing meetings
 - April 13, lecture meeting, 'The Gaia Revolution', Dr George Seabroke
- SAS (Cavendish Memorial Hall, 7:30pm, Tuesdays)
 - April 01, 'Latest Astrophotography', Nik Szymanek
- AAA (Whepstead Village Hall, 7:30pm, Wednesdays)
 - April 02, Introduction
 - April 16, 'The Search for the Planet Vulcan', Paul Fellows
- DAG (Diss)
 - Informal on FaceBook & WhatsApp

National Events I

- British Astronomical Association Meeting
 - Wednesday March 26, 17:00-20:00
 - Institute of Physics, 37 Caledonian Rd., London, N1 9BU
 - Also on Youtube
 - 'Eruptive Comets', Richard Miles
 - 'Commission for Dark Skies - Changes and Activities', Mark Hardaker
 - 'Sky Notes', Nick James

National Events II

- Society for the History of Astronomy
 - Saturday April 26, 10:00-16:30
 - Birmingham & Midland Institute, 9 Margaret St., Birmingham
 - ‘John Flamsteed: Pioneering Astronomy in Derby’, Dr Mike Lancaster
 - ‘Riccioli: The Sentinel of an Unshaken World’, Michal Paszkiewicz
 - Plus others, booking fee applies
- Society for Popular Astronomy
 - Saturday April 26, 14:00-17:30, doors open 13:00
 - Institute of Astronomy, Cambridge
 - ‘Galaxies: Bejewelled Island Universes’, Dr Or Graur
 - ‘Last Starlight for Ground-breaking Gaia’, Nicholas Walton

And Finally....

- Earlier.... Mercury and Venus were at inferior conjunction on successive days
- The ultimate in inferior conjunctions are planetary transits, and
- Simultaneous transits of Mercury and Venus are possible...
- last
 - 22 September, 373,173 BC
- next
 - 26 July, 69,163 AD
- then
 - 29 March, 224,504 AD