

# The night sky this summer

Marc van der Sluys

Radboud University Nijmegen / Nikhef / Utrecht University / LIGO-Virgo / [hemel.waarnemen.com](http://hemel.waarnemen.com)





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## April

Mercury

## April–May

Whirlpool galaxy

## May

Lunar Eclipse

## May–June

Hercules cluster

## Augustus

Perseids

Saturn

## September

Jupiter

Andromeda galaxy

- 1 April
  - Mercury
- 2 April–May
  - Whirlpool galaxy
- 3 May
  - Lunar Eclipse
- 4 May–June
  - Hercules cluster
- 5 Augustus
  - Perseids
  - Saturn
- 6 September
  - Jupiter
  - Andromeda galaxy

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Persheids

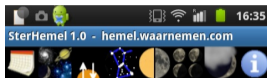
Saturn

September

Jupiter

Andromeda galaxy

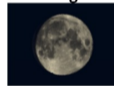
- Current events in the night sky, easily observable or with a bit more effort
- Visibility of Sun, Moon, planets, meteors, comets, deep sky, ISS, ...
- Astrocalendars, sky maps, lunar phases, sky tonight, observing weather, tables, ...
- Apps (Android/Apple), Twitter, (Facebook)
- ~ **10.000 pages in Dutch; No ads**
- **1–2 million** visitors per year



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**astrokalender**

*Tijdstippen zijn in Midden-Europese  
zomertijd (MEZT)*

**maandag 19 augustus**



**03.26: De Maan** is in het punt van zijn baan dat het dichtst bij de Aarde ligt: het **perigeum**. De afstand tussen de Aarde en de Maan bedraagt 362264 km. De **schijnbare diameter** van de Maan is groter dan gemiddeld (32'59,1"), door de kleinere afstand. De Maan is op dit moment **wassend**, voor 94% verlicht en hij is vrijwel de gehele nacht zichtbaar; 's avonds in het (zuid)oosten en tegen de ochtend in het westen of

These slides on <http://hemel.waarnemen.com/lectures>



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Google Translate

Dutch - detected → English

Popular: [View the Orion Nebula Sky Tonight Astrocalendar ISS Observing Weather StarSky app MySky Map Sun and Moon Moon Phases On / Below FAQ Contact](#)

Translation



Open a Google translation of this page in English



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## sky.observation.com

The starry sky for the Netherlands and Belgium



To follow

Tweet

Zon: op: 08:21, onder: 17:25  
Nacht: 18:43 – 07:04 (nacht)  
Richting: ZO, hoogte: 11,6°



Fase: 1,3%, eud: 28,6 dagen  
Richting: ZO, hoogte: 5,0°  
☾ is op, ondergang om 18:04

### Topical:

- **Sat Jan 29:** The Moon at Mars
- **Sun 30 Jan:** Last crescent moon at Mercury
- **Mon Jan 31:** View the open cluster M67
- **Wed Feb 2:** First crescent moon at Jupiter
- **Sun Feb 6:** All moons W of Jupiter

### New:

- Dates for Easter, Ascension and Pentecost
- What makes it colder as you go higher? on Radio 2
- Conjunctions and transits for **Mercury** and **Venus**
- Better animations for **solar eclipses**
- View **constellation** on sky map

Last update: 29 Jan 2022, 17:16

**Content:** general: [astro calendars](#) - [sky maps](#) - [planets](#) - [deep sky](#) - [applets](#) - [faq](#) - [various](#) - [links](#) - [contact](#)

details: [Sun](#) - [Moon](#) - [Mer](#) - [Ven](#) - [Aar](#) - [Mar](#) - [Jup](#) - [Sat](#) - [Ura](#) - [Nep](#) - [Plu](#) - [Meteors/comets/planetoids](#) - [deep sky](#)



### Astro calendars:

- ◆ **Current astro calendar** - what's happening in the starry sky right now?
- ◆ **Tonight in the sky** - the most important information at a glance
- ◆ **Visibility of the ISS** - space station transits in the coming month

◆ By month: [This month](#) - [December](#) - [January](#) - [February](#) - [March](#)  
◆ By year: [This year](#) - [2021](#) - [2022](#) - [2023](#) - [2024](#) - [2025](#)

[Glossary](#)



### Sky Maps:

**Interactive:** [Sky map for every moment](#)

**Daily Sky Maps:** [Evening](#) - [Night](#) - [Morning](#) - [Explanation](#)

**Monthly Sky Maps** (for All Sky, **N** orth, **E** ost, **S** ud, **W** est):

◆ **February 1:** 7 a.m.: [H - N - O - Z - W](#) 19:00: [H - N - O - Z - W](#)  
◆ **February 15:** 6.30 am: [H - N - O - Z - W](#) 7.30 pm: [H - N - O - Z - W](#)  
March 1: 6.00 am: [H - N - O - Z - W](#) 8 pm: [H - N - O - Z - W](#)

# Mercury evening star



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April

Mercury

April–May

Whirlpool galaxy

May

Lunar Eclipse

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Hercules cluster

Augustus

Persids

Saturn

September

Jupiter

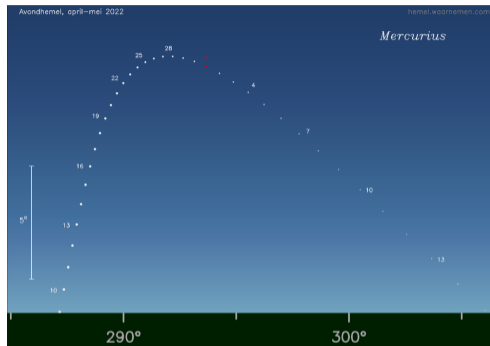
Andromeda galaxy

**What?** The planet **Mercury** is in **greatest elongation** on 29 April and visible as **evening star**.

**When?** 20 – 26 April, best round **24 April**.

**Where?** As a dim ‘star’ in the evening twilight, low in the **westnorthwest**.

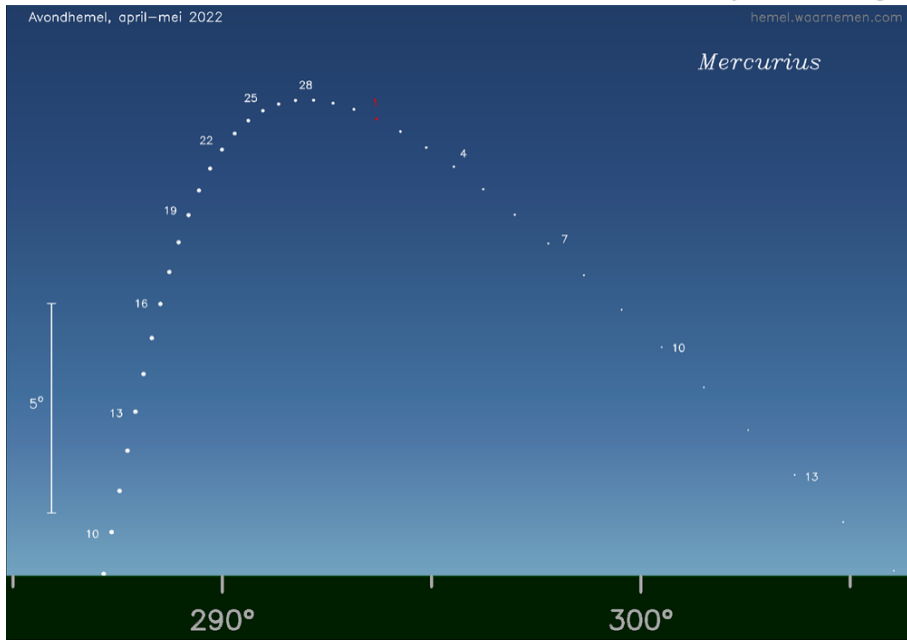
**And?** A (simple) pair of **binoculars** can help to find Mercury.



More information:

[http://hemel.waarnemen.com/mercurius/elongaties/mercuriuselongatie\\_20220429.html](http://hemel.waarnemen.com/mercurius/elongaties/mercuriuselongatie_20220429.html)

# Mercury evening star



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Saturn

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Jupiter

Andromeda galaxy

# See the galaxy M51 in April–May



April

Mercury

April–May

Whirlpool galaxy

May

Lunar Eclipse

May–June

Hercules cluster

Augustus

Persids

Saturn

September

Jupiter

Andromeda galaxy

**What?** The **galaxy M51** a.k.a. the **Whirlpool galaxy**.  
Magnitude: 8,4m, apparent diameter: 0,19°.

**When?** Circumpolar: highest altitude around **01:30**.

**Where?** In the **north**, at 85° altitude, in the **Canes Venatici**, at **31 million lightyears**.

**And?** A **telescope** is needed to see this distant and hence small and weak galaxies. The interaction between the galaxies causes enhanced **star formation**.



*Image: HST*

More information: <http://hemel.waarnemen.com/deepsky/ngcic/ngc5194.html>

# See the galaxy M51 in April–May



## April

Mercury

## April–May

Whirlpool galaxy

## May

Lunar Eclipse

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Hercules cluster

## Augustus

Perseids

Saturn

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Andromeda galaxy







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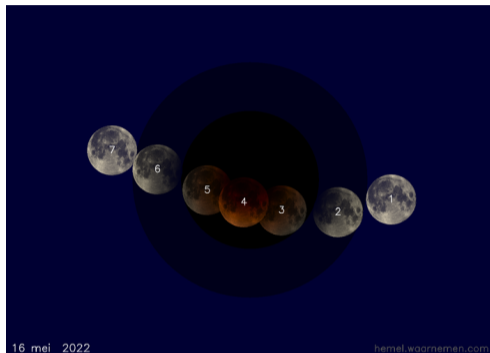
Andromeda galaxy

**What?** **Total lunar eclipse:** the Full Moon exactly opposes the Sun in the sky and disappears in the Earth's shadow.

**When?** On **16 May**, between 03:31 and 05:47.

**Where?** Low above the southsouthwestern to southwestern horizon.

**And?** The first half is visible in our regions, until the Moon sets. The circular shadow of the Earth suggests that the Earth is *not* flat. . .



More information:

[http://hemel.waarnemen.com/maan/eclipsen/maansverduistering\\_20220516.html](http://hemel.waarnemen.com/maan/eclipsen/maansverduistering_20220516.html)

# Lunar Eclipse on 16 May



## April

Mercury

## April–May

Whirlpool galaxy

## May

Lunar Eclipse

## May–June

Hercules cluster

## Augustus

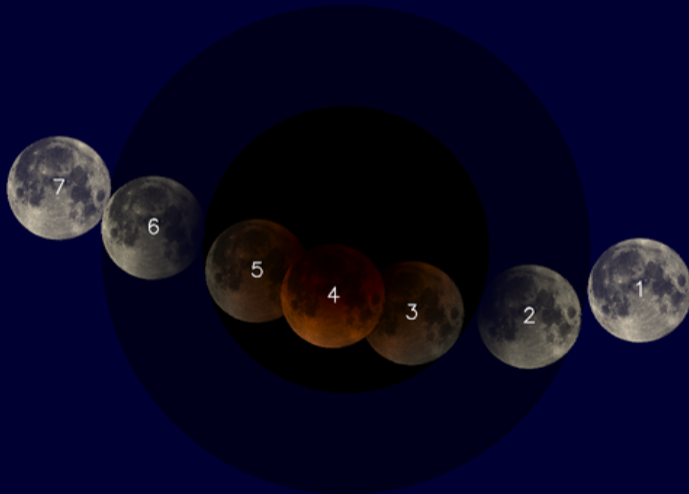
Perseids

Saturn

## September

Jupiter

Andromeda galaxy



# See the globular cluster M13 in May–June



April

Mercury

April–May

Whirlpool galaxy

May

Lunar Eclipse

May–June

Hercules cluster

Augustus

Persids

Saturn

September

Jupiter

Andromeda galaxy

**What?** The **globular cluster M13** or **Hercules cluster**.  
Magnitude: 5.8m, apparent diameter: 0,33°.

**When?** Circumpolar: maximum altitude around **01:30**.

**Where?** In the **north**, at 74° altitude, in **Hercules**, at **22 thousand lightyears**.

**And?** This globular cluster can be observed with **binoculars**, while a telescope will reveal more details. Globular clusters contain the **oldest stars** from our Milky Way galaxy.



*Image: Sid Leach/Adam Block/Mount Lemmon SkyCenter*

More information: <http://hemel.waarnemen.com/deepsky/ngcic/ngc6205.html>

# See the globular cluster M13 in May–June



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# Maximum of the Perseid meteor shower



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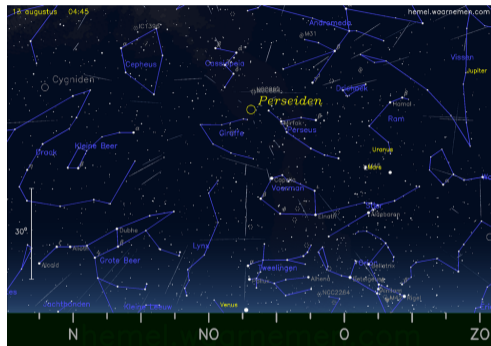
Andromeda galaxy

**What?** The **meteor shower Perseids** reaches its maximum, with a disappointing **12–20 meteors** per hour.

**When?** On **13 August between 04:00 and 05:00**. The nights before and after: around 10–15 per hour.

**Where?** In the evening in the **northnortheast** (5–10 per hour), at night in the **northeast**.

**And?** Need no special equipment (patience, warm clothes, comfy chair?). More “shooting stars” are visible from a **dark location**.



More information: [http://hemel.waarnemen.com/meteoorzwermen/Perseiden\\_2022.html](http://hemel.waarnemen.com/meteoorzwermen/Perseiden_2022.html)

# Maximum of the Perseid meteor shower



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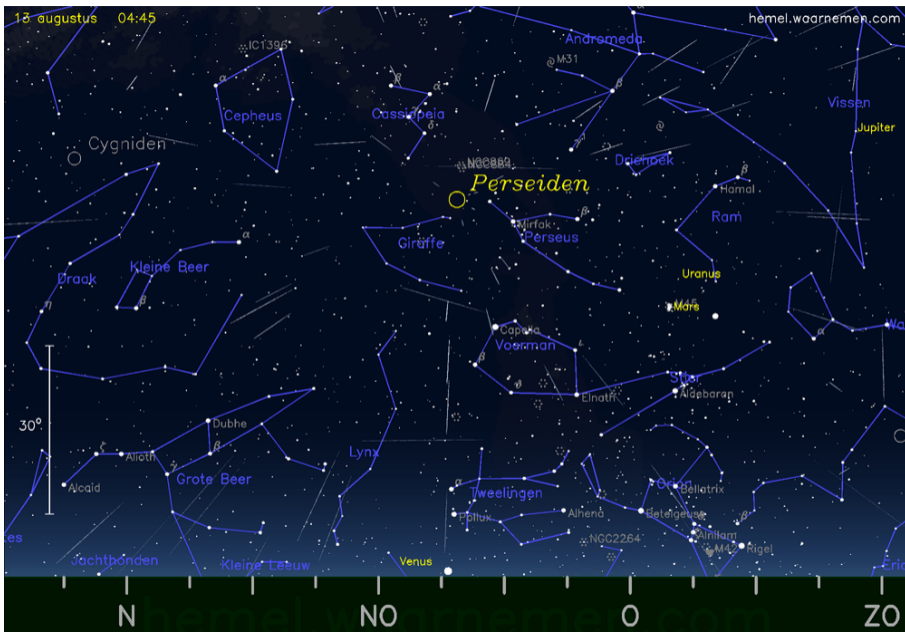
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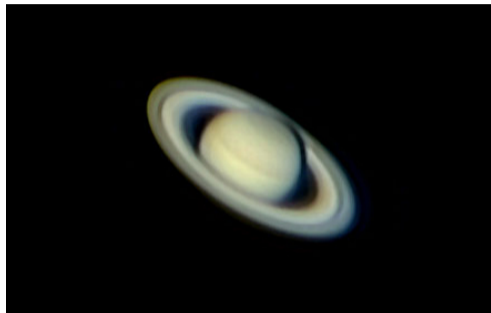
Andromeda galaxy

**What?** The planet **Saturn** is in **opposition**, hence close to the Earth, and looks relatively large and bright.

**When?** The opposition takes place on **August 14**. The planet is visible from **May until December**, initially in the early night, then mostly in the evenings.

**Where?** In the evening in the **east**, at night in the **south** and in the morning in the **west**.

**And?** You can see Saturn's famous **rings** with **binoculars** and more detail with a **telescope**.



*Image: Rochus Hess, Wikipedia*

More information:

[http://hemel.waarnemen.com/saturnus/opposities/saturnusoppositie\\_20220814.html](http://hemel.waarnemen.com/saturnus/opposities/saturnusoppositie_20220814.html)

# Saturn in opposition



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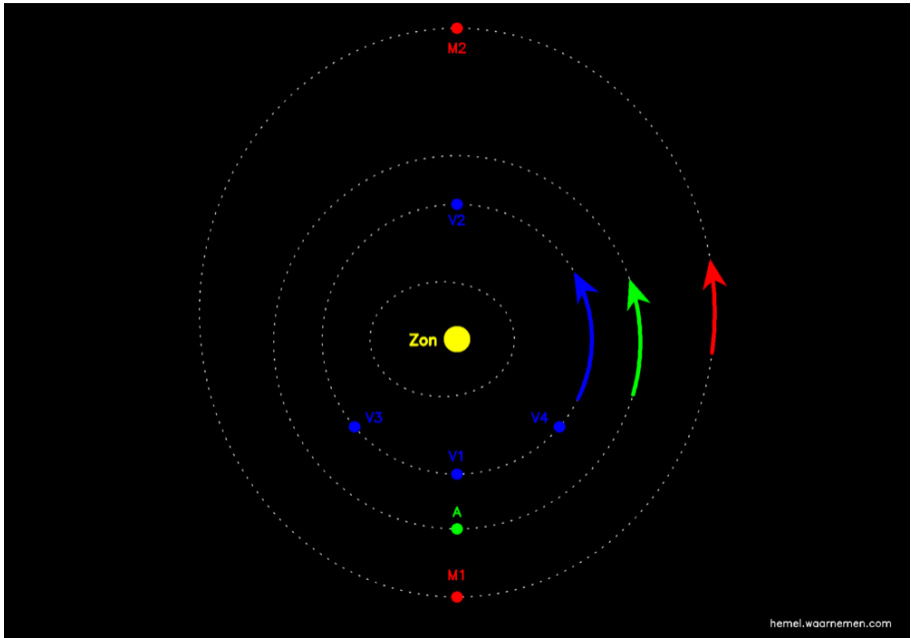
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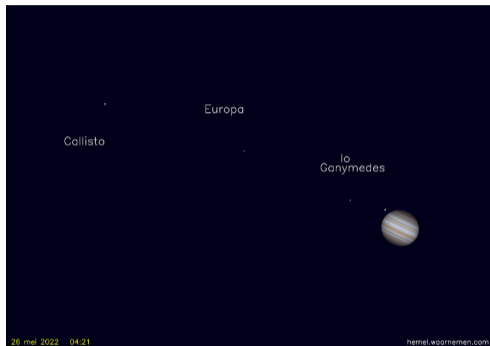
Andromeda galaxy

**What?** The planet **Jupiter** is in opposition, hence close to the Earth, and looks relatively large and bright.

**When?** The opposition is on **26 September**, the planet is visible from **July until February**, initially in the early night, later mostly in the evenings.

**Where?** In the evenings in the **east**, at night in the **south** and in the mornings in the **west**.

**And?** With a good pair of **binoculars**, you can watch Jupiter's **Galilean moons** move during the night.



More information:

[http://hemel.waarnemen.com/jupiter/oppositions/jupiteroppositie\\_20220926.html](http://hemel.waarnemen.com/jupiter/oppositions/jupiteroppositie_20220926.html)

# Jupiter in opposition



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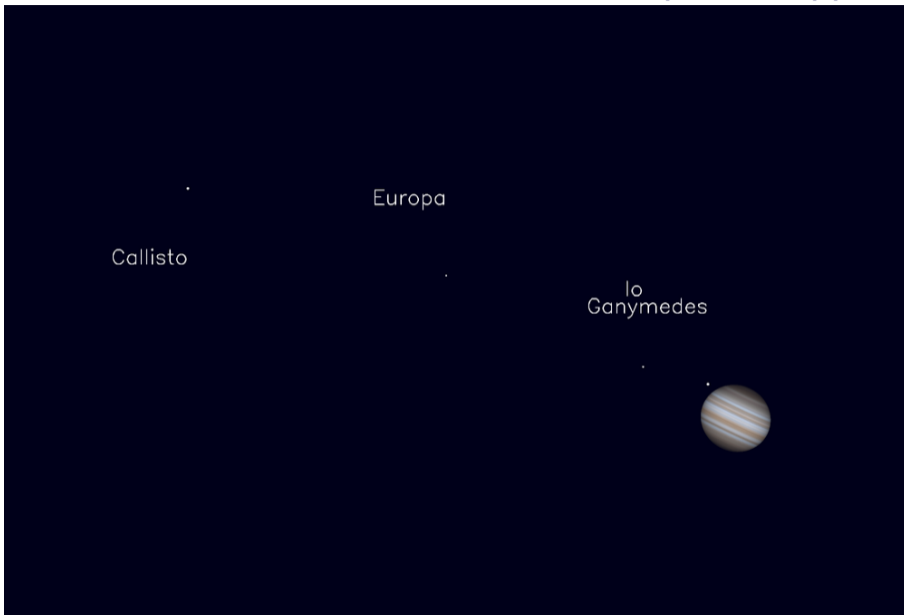
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26 mei 2022 04:21

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# See the galaxy M31 from August/September



April

Mercury

April–May

Whirlpool galaxy

May

Lunar Eclipse

May–June

Hercules cluster

Augustus

Persids

Saturn

September

Jupiter

Andromeda galaxy

**What?** The **galaxy M31** a.k.a. the **Andromeda galaxy**.  
Magnitude: 3,4m, apparent size:  $3 \times 1^\circ$ !

**When?** From August in the late night, then appearing a little earlier every night.

**Where?** Circumpolar; in the **north**, at  $79^\circ$  altitude, in **Andromeda**, at **2,5 million lightyears**.

**And?** The Andromeda galaxy can be seen with the **naked eye**, but *binoculars* help. A *telescope* reveals more details.



Image: David Dayag, Wikipedia

More information: <http://hemel.waarnemen.com/deepsky/ngcic/ngc0224.html>

# See the galaxy M31 from August/September



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Whirlpool galaxy

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Andromeda galaxy



# See the galaxy M31 from August/September



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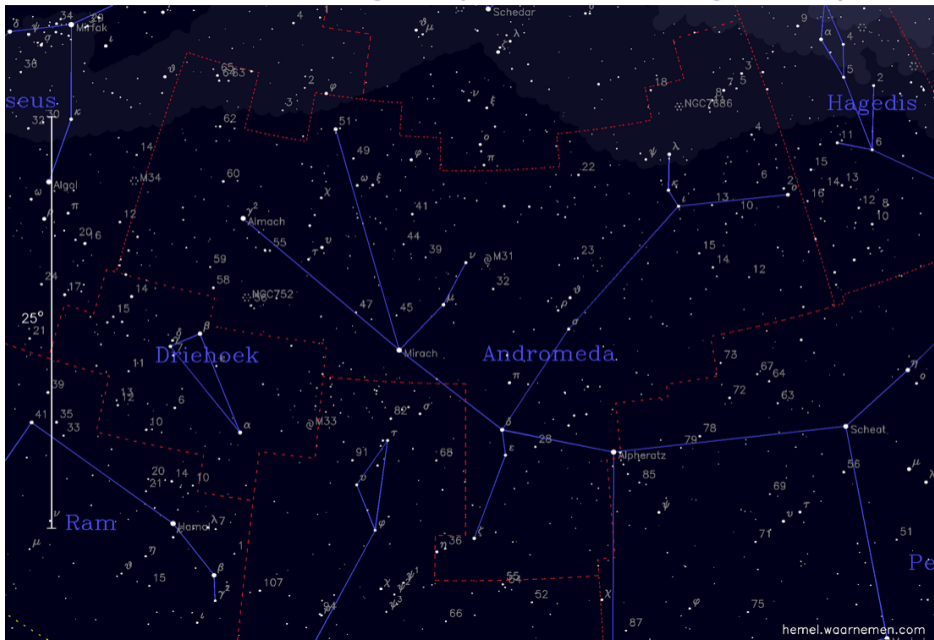
Persids

Saturn

**September**

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# Next public-observing/online astronomy night



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**What?** Next public-observing night at the Radboud University.

**Where and When (1)? Friday September 30?, in Nijmegen?**

**Where and When (2)? Friday October 7?, online?**

**And?** New programme, new lecture, new night sky, new discussion!



More information: <https://www.ru.nl/astrophysics/public-outreach/stargazing-evenings/>

This lecture at: <http://hemel.waarnemen.com/lectures>