



# 100 Hours of Astronomy

## An International Year of Astronomy 2009 Cornerstone Project Information Pack



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Educational, Scientific and  
Cultural Organization



International  
Astronomical  
Union



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# International Year of Astronomy 2009

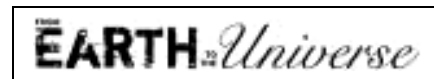
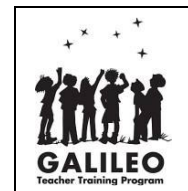
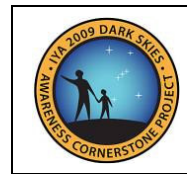
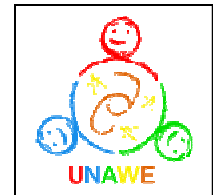
[www.astronomy2009.org](http://www.astronomy2009.org)

The International Astronomical Union (IAU) has declared 2009 as the International Year of Astronomy (IYA2009) with the theme “The Universe, yours to discover”. IYA2009 marks the 400<sup>th</sup> anniversary of Galileo Galilei’s first astronomical observation through a telescope. IYA2009 will be a global celebration of astronomy and its contribution to society and culture. It will have a strong emphasis on education, public engagement and the involvement of young people. Events will be organised at global, national and regional levels throughout 2009. IYA2009 has been endorsed by UNESCO and the UN General Assembly.

The International Year of Astronomy 2009 is supported by eleven cornerstone projects and seven special projects established by the IAU Executive Committee IYA2009 Working Group. These global programmes are based on specific themes that collectively represent the means to achieve the IYA2009’s primary goals. The projects and the global participation they will generate are the key to the success of IYA2009.

## IYA 2009 Cornerstone Projects

- 100 Hours of Astronomy
- The Galileoscope
- Cosmic Diary
- The Portal to the Universe
- She is an Astronomer
- Dark Skies Awareness
- Astro and World Heritage
- Galileo Teacher Training Programme
- Universe Awareness
- From Earth to the Universe
- Developing Astronomy Globally



## IYA 2009 Special Projects

- The World at Night
- 400 Years of the Telescope
- Galilean Satellites
- Around the World...
- Exoplanet Hunters
- 1919 Eclipse
- The Sky – Yours to Discover

## IYA 2009 National Nodes

IYA2009 is a global project taking place on a local level. Over 130 countries are committed to supporting the year in any way they can and are fully embracing the ethos of bringing the Universe down to Earth.

As part of their efforts, participating countries have formed National Nodes. These are groups that coordinate IYA2009 activities for specific countries and are the official contacts for each area. Each Node organiser can tell you what, where and when events are being held in your particular area. The official IYA 2009 website has a list of all National Nodes and their contacts.



# 100 Hours of Astronomy 2009

[www.100hoursofastronomy.org](http://www.100hoursofastronomy.org)



## An Event 400 Years in the Making

Date: 2-5 April 2009

Duration: 4 Days (96hrs)

The 100 Hours of Astronomy Cornerstone Project (100HA) is an around-the-clock, worldwide event with 100 continuous hours of a wide range of activities and public outreach events including live webcasts, observing events, star parties and other specialised activities. One of the key goals of 100HA is to have as many people as possible look through a telescope as Galileo did for the first time 400 years ago. 100HA will take place from 2-5 April and will start officially at midnight the night of 2/3 April at the International Dateline (12.00UT).

100HA is a four-day event designed to bring astronomy to the public around the world. This doesn't mean any one group is expected to take part for the entire 100 hours. Whether it's a few hours on one day or a 100-hour marathon event, how groups choose to participate is up to them. Plans should fit the resources and enthusiasm that's available. All activities and events during 100HA will bring astronomy to a new audience.

## 100 Hours of Astronomy global events:

1. Select science centres will participate in a live webcast featuring discussions on current topics in astronomy on 2 April. Live observations will be made by visitors to select science centres using telescopes operated remotely over the Internet. Science centres worldwide will feature enhanced outreach programmes, many with the participation of amateur astronomy groups holding public observing sessions.
2. 24-hour Research Observatory Webcast: Astronomers at professional research observatories around the world will take viewers inside their telescope domes and control rooms during a live 24-hour webcast on 3 April.
3. 24-hour Global Star Party: For 24 hours on 4 April, telescopes (including solar telescopes) will be made available for public viewing by astronomy clubs and observing groups free of charge. The goal is to allow as many people as possible to have a chance to look through a telescope.
4. SunDay: Organised by the Solar Physics Task Group. We all owe our existence to our closest stellar neighbour, the Sun. Without it, all life on earth would perish. The last day of 100 Hours of Astronomy (Sunday) has been set aside to highlight and celebrate the Sun.

## 100 Hours of Astronomy 2009 Website

[100hoursofastronomy.org](http://100hoursofastronomy.org) is the global home and information centre for the 100HA. The web site allows all groups to officially register their 100HA events on our Google World Map database. It will feature live webcast streams, archives, event schedules, star maps and informational resources including press release information, blogs, forums and galleries. It's the place for participants in 100HA events to share their reports, images and videos with the rest of world.

## 100 Hours of Astronomy Online Forum, Blog and Photo Gallery

Take part in the 100HA global forum where everything on the 100HA cornerstone project and its major events and activities can be discussed. Read our 100HA blogs and upload and share your 100HA celebration pictures with the world



# Resources and Information

Events planned by astronomy clubs, observatories, planetariums, science centres and others from around the world during the 100 Hours of Astronomy (100HA) will be listed on the 100HA website. Information will include public observing locations, times and dates and other details. Resources for download will also be available on the 100HA website, including:

- 100HA Google Map event registration
- Contact lists
- Information packs
- Newsletters and information bulletins
- Schedules and interactive maps showing all registered events
- Logos, promotional stickers and stationery to use for local events
- Advertising posters, flyers and brochures to use for local events
- Monthly star maps from Skymaps.com for practical observing
- Tips on how to choose your location and promote your event
- Getting started checklists
- How-to guides for star parties
- 100HA final report form
- Press releases and media information kits that can be adapted to all events
- 100HA Café Press online shop
- 100HA Blog, Forum and Picture Gallery

## Task Group members to contact

- Sidewalk Astronomy: Donna Smith (USA, Sidewalk Astronomers/ISAN)  
[sidewalkastronomers@earthlink.net](mailto:sidewalkastronomers@earthlink.net)
- Science Centres: Walter Staveloz (USA, ASTC)  
[wstaveloz@astc.org](mailto:wstaveloz@astc.org)
- Research Observatory Live Webcast: Douglas Pierce-Price, Co-Chair (Munich, ESO)  
[dpiercep@eso.org](mailto:dpiercep@eso.org)
- Solar Astronomy: Bruno Sanchez-Andrade Nuño (Washington, DC, MPS)  
[brunosan@gmail.com](mailto:brunosan@gmail.com)
- General Inquiries: Jennie McCormick (NZ, 100HA Coordinator)  
[farmcoveobs@xtra.co.nz](mailto:farmcoveobs@xtra.co.nz)
- 100HA Online Forum: Manoj Pai (India) and Frosina Ilievska (Macedonia)  
[iya2009@1au.in](mailto:iya2009@1au.in) and [frosina.ilievska@yahoo.com](mailto:frosina.ilievska@yahoo.com)
- Online Features and Education Resources: Terry Bridges (Canada)  
[tjb@astro.queensu.ca](mailto:tjb@astro.queensu.ca)

## Sponsorship

For information and inquiries regarding sponsorship opportunities, contact Mike Simmons, 100 Hours of Astronomy Task Group Co-Chair, [mikes@astronomerswithoutborders.org](mailto:mikes@astronomerswithoutborders.org) .



# Science Centre Programmes - Live Science Centre Webcast

Organised by the Association of Science-Technology Centre, Washington, DC, USA and hosted by The Franklin Institute, Philadelphia, Pennsylvania, USA

## Space Observation: Past, Present and Future

Date: 2 April 2009

Starting Time: 1.00pm EST (17.00 UTC)

Duration: 90 minutes

Contact: Walter Staveloz, [wstaveloz@astc.org](mailto:wstaveloz@astc.org)



This webcast will be hosted by the Franklin Institute on the occasion of the opening of their special exhibition, "Galileo" which features the original Galileo telescope. The webcast will feature science centres from around the world discussing the importance of space observation throughout history.

## Science Centres Taking Part

- MTN Science Centre in Cape Town, South Africa
- The South African Astronomical Observatory
- "Ellinogermaniki Agogi" in Greece
- Armagh Planetarium in Ireland
- Hamburg Planetarium, Germany

## Topics

- From Philadelphia Prof. Paolo Galluzzi, Director of the Institute and Museum of the History of Science in Florence, Italy, will describe Galileo's importance and what recent research tells us about the instrument he used.
- From South Africa - A discussion of naked eye observations of the sky and the knowledge systems of indigenous peoples.
- From Germany we will hear about new possibilities for economical development because of the use of telescopes.
- From Greece - Live demonstrations of remote telescope access giving science centre visitors a chance to take pictures of space using a telescope in Crete.
- Hamburg will demonstrate models of space using the virtual telescope.

## Webcast Format

- Participating sites will show a scientific presentation followed by an activity for youngsters that illustrates the lesson.
- Speakers, along with educational materials linked to their presentations, will be available on the Association of Science and Technology Centres (ASTC) web site in advance of the event.
- The video conference will be streamed live on the web.
- A chat box will be available for questions for the presenters.
- The webcast will be archived and available for viewing immediately afterward.

## How Science Centres Can Use The Webcast In Their Own Events

- Show it on a big screen in a public location.
- Engage the public in developing questions for the speakers via the online chat box.
- Invite speakers who can contribute to the theme before and after the webcast.
- Lead tours of your astronomy galleries before and after the webcast.
- Invite astronomy clubs to organise telescope observing sessions at your centre.
- Use the archived webcast when planning future programmes.
- Reserve time on online telescopes for your visitors.
- Submit pictures and reviews of your event to the 100HA web site.



# Live 24-Hour Research Observatory Webcast

Organised by ESO, the European Organisation for Astronomical Research in the Southern Hemisphere, Garching, Germany

Date: 3 April 2009

Starting Time: 9:00UT

Starting Place: Hawaii

Duration: 24 hours

**Contact:** Douglas Pierce-Price, [dpiercep@eso.org](mailto:dpiercep@eso.org)

The Research Observatories webcast will be a unique live webcast over 24 hours, following night and day around the globe to some of the most advanced observatories on and off the planet. The live video webcast will be available on the 100HA website.

Viewers can find out what's happening at a research observatory in their country, or on the other side of the planet, and discover what astronomers are doing right now! Who is observing? What are they researching? What do they hope to discover?

The tour will show a snapshot of life at many different observatories where astronomers will present exclusive images and talk about their work. Some will be observing distant galaxies, searching for extrasolar planets around other stars or studying our own Solar System. Some will be studying the Universe in visible light, others in radio waves or other wavelengths. Some may be working at solar observatories or with telescopes out in space. All of them will have a different story to tell.



The Paranal platform and the four 8.2m VLT at Cerro Paranal  
*Picture Courtesy - ESO*

# Sidewalk Astronomy – 24-hour Global Star Party

Date: 4 April 2009

Starting Time: Sunrise local time

Contact: Donna Smith, [sidewalkastronomers@earthlink.net](mailto:sidewalkastronomers@earthlink.net)

Sidewalk Astronomy events such as Astronomy Day, Astronomy Week and International Sidewalk Astronomy Night (ISAN) take place every year. Amateur astronomers, astronomy clubs and other groups set up telescopes in public places to enable as many people as possible to have the chance to look through a telescope. Taking telescopes to where the people are and promoting astronomy is what Sidewalk Astronomy is all about.

All amateur astronomers and telescope owners should join the dedicated community of sidewalk astronomers that regularly hold these public events during the 24-hour global star party to reach out to as many people as possible in all nations around the globe.

Everyone with a telescope should bring it out under the stars throughout 100HA – and especially during the global star party – to share the wonders of the sky with others. Along with the usual venues of streets and shopping malls where foot traffic is high, participants are encouraged to go to non-traditional locations to reach those who cannot come to them. Military bases, rest homes – wherever there are people to look through a telescope, a telescope should be there. Amateur clubs should have members at several locations to reach as many people as possible. Groups should also approach science centre's, museums, libraries and other facilities to work together in bringing astronomy to the public throughout 100HA. Events should be as diverse as the amateur astronomers themselves!

New ideas are the key to increasing participation, attracting the public and getting the media's attention. A public observing marathon, a busy street lined with telescopes, telescopes at local historic sites – new ideas get attention. Events should be accessible to the disabled community whenever possible. The International Year of Astronomy 2009 and the 100 Hours of Astronomy Cornerstone Project are the perfect opportunity to bring astronomy to the people and showcase this fantastic science. 100HA will be the largest international astronomy event ever and everyone should take part!



Levin Stargazers Public Star Party with neighbouring fireworks.

Levin, New Zealand.

Picture courtesy Paul Moss



# SunDay

**Organised by Solar Physics Task Group**

**Date:** 5 April 2009

**Starting Time:** Sunrise local time

**Contact:** Bruno Sanchez-Andrade Nuño, [brunosan@gmail.com](mailto:brunosan@gmail.com) and Ricardo Reis, [ricreis@gmail.com](mailto:ricreis@gmail.com)

We all owe our existence to our closest stellar neighbour, the Sun. Without it, all life on earth would perish. The last day of the 100 Hours of Astronomy Events (Sunday) has been set aside to highlight and celebrate the Sun. Let's enjoy Sunday April 5, when we all have some free time and a day off to learn about our star and celebrate its brilliance in our daytime sky.

The Solar Physics Task Group is collaborating with 100 Hours of Astronomy to support any activity related to the Sun, and will provide instructions, ideas and recommendations for safe solar observations.

Groups, Science Centres, Observatories and Planetariums with safe solar telescope viewing capabilities are encouraged to organise events for the public on this special day, SunDay.

## Did you know?

- The Sun contains approximately 98% of our Solar Systems mass
- That 109 Earths could fit across the Sun's disk
- That the interior of the Sun could hold 1.3million Earths
- That the Sun is approximately 4.6 billion years old

<http://solarastronomy2009.org/100-hours-sunday>





## Other Events and Activities

There are no limits to the number of events and activities that can be conducted during the 100 Hours of Astronomy! There are no restrictions – just do something to bring astronomy to the people in your area. Have fun and share your passion for this fascinating science and hobby. It's a time for everyone to discover the Universe. Join the discussion on the 100HA forums, and share your ideas or find new ones. Contact the 100 Hours of Astronomy team with any questions.

## Register 100 Hours of Astronomy Events

<http://www.100hoursofastronomy.org>

All organizers are encouraged to register their events on the 100 Hours of Astronomy website using a simple online registration form. Registered events will be part of the global network and organizing groups will receive news and information as it becomes available.

Everyone can subscribe to the 100 Hours of Astronomy Mailing List for updates and Newsletters.

## 100HA Mailing list website address

[http://www.100hoursofastronomy.org/mailling\\_list.html](http://www.100hoursofastronomy.org/mailling_list.html)

## Legacy

All online 100HA material will be archived and continue to be made available to the public and for use by observatories, science centres, schools and amateur astronomy clubs. 100HA will increase awareness and public outreach in astronomy in several ways.

- The Sidewalk Astronomy and other amateur outreach efforts will produce new amateur astronomers committed to outreach.
- The public's increased awareness and enthusiasm for astronomy should carry over to other IYA2009 programmes that follow.
- Getting a first look through a telescope can be a life-changing event!
- 100HA should increase interest in astronomy and membership in astronomy clubs and societies. Increased sales of telescopes, equipment and accessories could also result.
- Increased attendance at science centres should be maintained by seizing the opportunity to create programmes that build on the excitement of 100HA.
- All participants in 100HA are encouraged to continue their efforts and maintain their audiences' interest in astronomy.

