nase NEWSLETTER

12/2015 Nº 2

EDITORIAL

The **NASE** (Network School for Astronomy Education) courses are running very well. From August to November 2015 there have been five courses, four of which we are reporting on here. For lack of space, we will talk about the fifth in the next Newsletter. We want to share the work of all local groups. They are adding new material on the web (in several languages):

http://sac.csic.es/astrosecundaria/es/Presentacion.php

I am delighted to inform you that we are in Wikipeda. The NASE reference is:

https://en.wikipedia.org/wiki/Network_for_Astronomy_School_Education

We would like to send this newsletter to all people who have taken the course. Consequently, we need volunteers to translate the text from Spanish to English and Portuguese. Volunteers can send an e-mail to newsletter@gmail.com, and Ricardo Moreno, our editor, will contact them.

I wish you Merry Christmas and a 2016 full of good things for everyone.

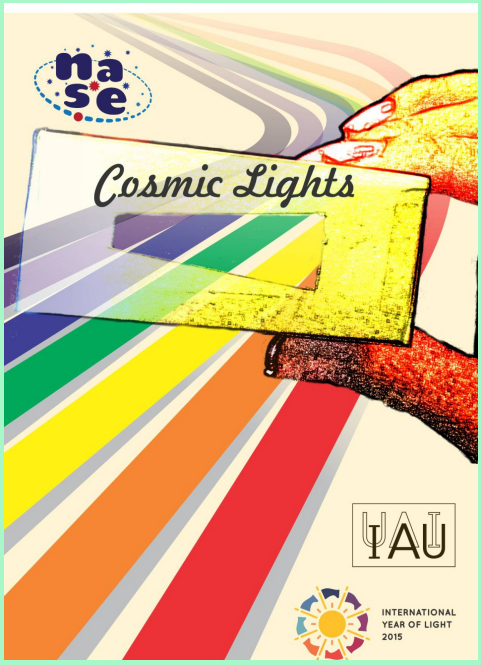
Rosa Mª Ros

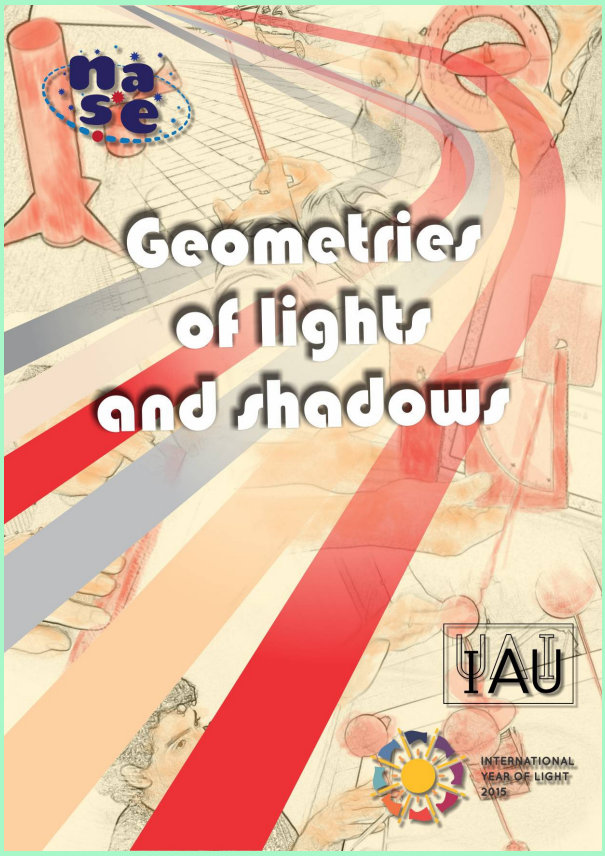
NEWS

NASE in the International Year of the Light 2015 (IYL 2015)

Light can be a good tool for teaching astronomy and astrophysics in the new century. In this year dedicated to the light, NASE has used different sections of the course to talk about a remarkable series of milestones in the history of the science.

We are prepared special material to be used as part of NASE presentations for this IYL2015, and two





monographic texts to show the possibilities offered by the light in teaching concepts in different areas of the natural sciences, from mathematics to biology.

Both books "Geometry of Lights and Shadows" and "Cosmic Lights" covering all aspects of astronomy and astrophysics that we can find in the programs of education around the world and show how to teach basic and complex concepts in this new era of the big telescopes on Earth and in the space.

You can download these books in:

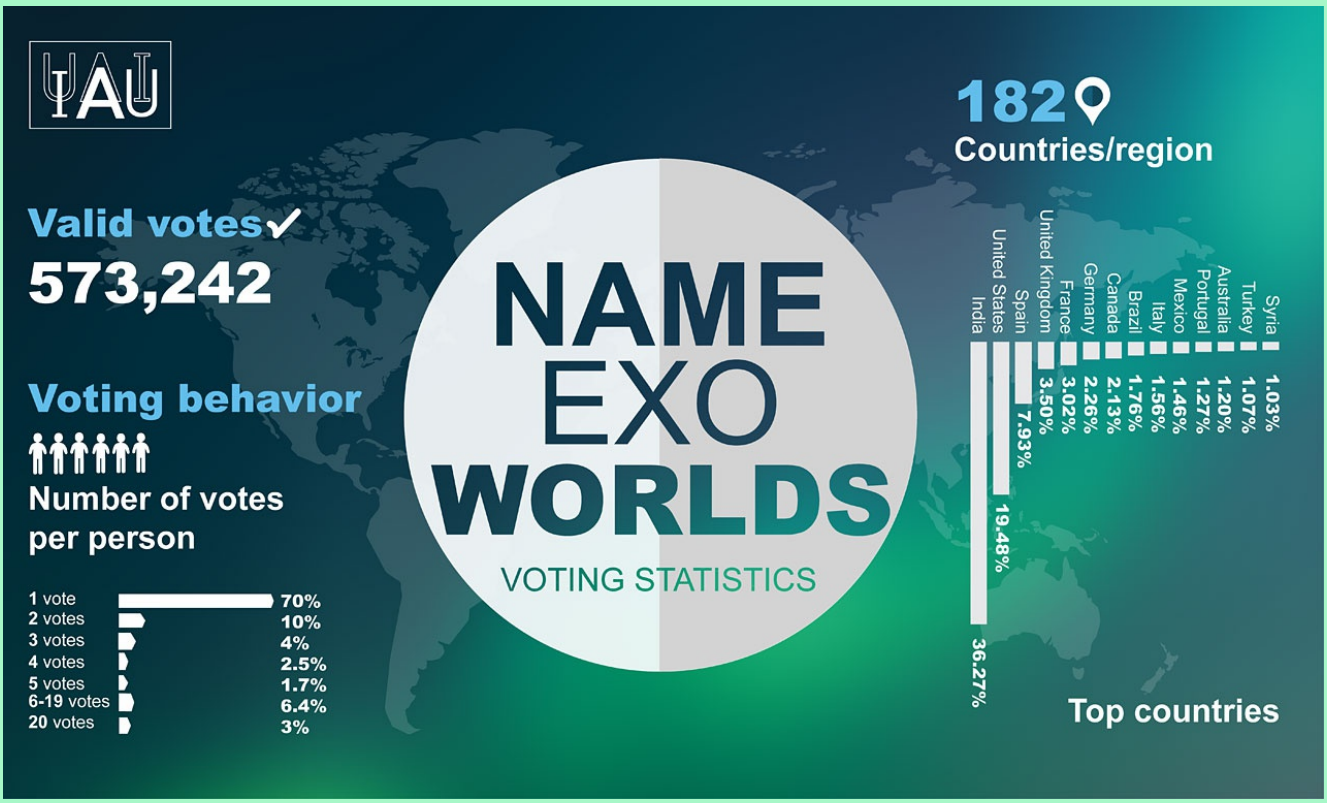
http://sac.csic.es/astrosecundaria/en/cursos/formato/materiales/libro/geometria_ingles.pdf

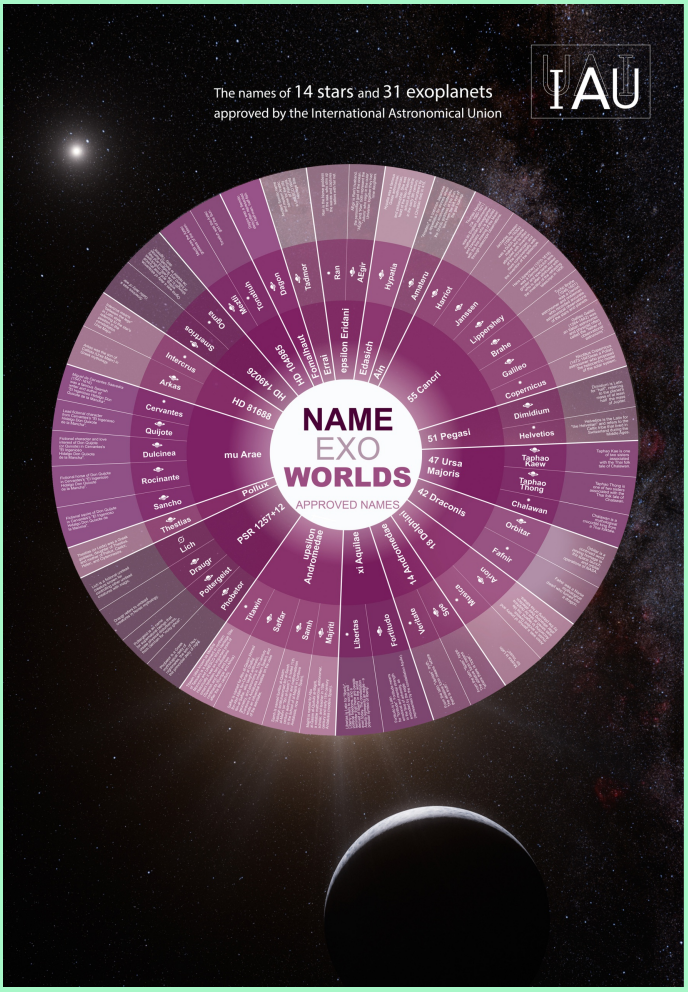
http://sac.csic.es/astrosecundaria/en/cursos/formato/materiales/libro/Luces_del_cosmos_ingles.pdf

New names for exoworlds

The names of 19 "ExoWorlds" (14 stars and 31 exoplanets orbiting around them) have been chosen by public vote in the NameExoWorlds contest, and accepted by the IAU (International Astronomy Union) on 15 December 2015.

Reflecting the truly international interest in astronomy, over half a million votes from 182 countries contributed to the new official designations of the alien worlds.





The public voted on the 274 proposed ExoWorld names submitted by a wide variety of astronomy organisations from 45 countries all over the world: amateur astronomy groups, schools, universities and planetariums.

The newly adopted names take the form of different mythological figures from a wide variety of cultures, as well as famous scientists, fictional characters, ancient cities and words selected from bygone languages. Some of them are:

Star	14 Andromedae: Veritate (Truh)	
Planet	14 Andromedae b: Spe (Hope)	
Star	55 Cancri	Copernicus
Planet	55 Cancri b	Galileo
Planet	55 Cancri c	Brahe
Planet	55 Cancri d	Lippershey
Planet	55 Cancri e	Janssen
Planet	55 Cancri f	Harriot
Star	mu Arae	Cervantes
Planet	mu Arae b	Quixjote
Planet	mu Arae c	Dulcinea
Planet	mu Arae d	Rocinante
Planet	mu Arae e	Sancho

The complete list of the results, including vote counts, proposers, and citations is published on the IAU NameExoWorlds website.

http://nameexoworlds.iau.org

COURSES

NASE Course in Tegucigalpa (Honduras) August 24-27, 2015

In cooperation with the Ministry of Education of Honduras and the Astronomical Observatory of the National Autonomous University of Honduras.

It has been a very large course, with 52 participants, the vast majority without prior contact with this matter.

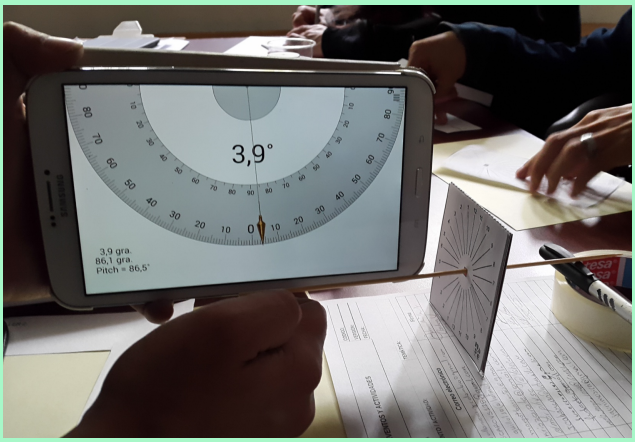
In their conclusions, students expressed their satisfaction with the practical course. As a matter of fact, they asked to have a continuation course in the future.

NASE Course in Bogota (Colombia), October 5-7, 2015

This course took place in the Bogota Planetarium.

It was not very large, 17 participants, who went about the work in the usual two groups that are formed.

Moreover, the participants had had previous contact with astronomy. They are seeking help to promote more science clubs, seed of future scientists.

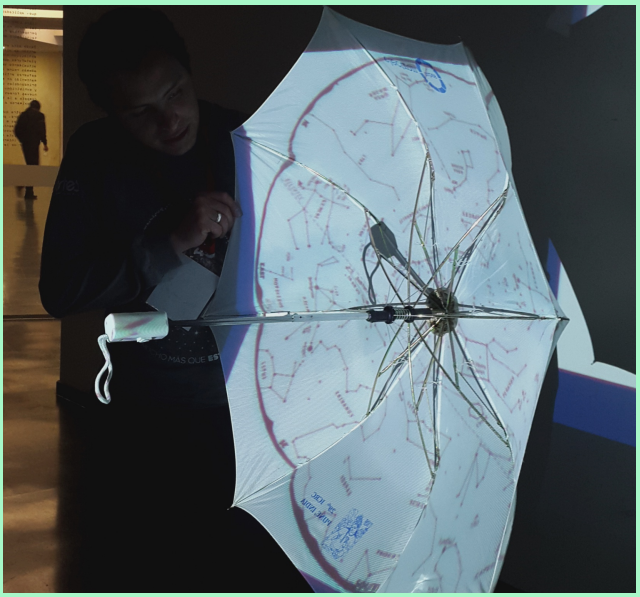


NASE Course in Bucaramanga, Colombia, October 11-14, 2015

This course has been done with the Industrial University of Santander.

Thirty teachers from all levels have participated: primary, secondary and adult education. Overall it was their first contact with astronomy, and they used new technologies, as seen in the photo.

The conclusions expressed the lack of preparation that teachers have on these issues, and the usefulness of these courses.



NASE Course in Salta (Argentina) November 2-5, 2015

It has been done in cooperation with the VoCar-CONICET Program and the Ministry of Education, Science and Technology, Government of the Province of Salta.

Twenty two people participated, mostly teachers of students 13-18.

They expressed their desire to use in their classes all the material that was provided the course.

MATERIAL

STARRY SKIES IN NATIVITY SCENES

At this time, in many places, Nativity scenes are put up, which often have a starry sky as a background. Why not take advantage and make real and recognizable constellations from the hemisphere where we are?

The stars are readily available at stores or we can make them and stick them on the background with glue. We can use stars of different sizes and colors, or small circles, etc.

We can offer to do so not only in our home but everywhere where we can in schools, churches, shops, relative's homes, etc. It is a good opportunity to share astronomy and talk and learn about the constellations.

Two examples are shown in the photographs. In the first, there are some constellations and stars visible in the Northern Hemisphere: Orion, Taurus, Sirius and Procyon. In the sky of the second picture there are constellations from the southern hemisphere: the Southern Cross, with alpha and beta Centauri, and the constellation Scorpius.

If we wanted to represent constellations that there really were, there's no doubt that we would have to put the ones from the northern hemisphere, because Bethlehem is in Israel and has a latitude of 31ºN. However, no one knows the day and the month of the birth of Jesus. Since ancient times it was agreed to celebrate it on the winter solstice, when in the northern hemisphere the sun begins to overtake the evening (the days become longer).

If you do not like Nativity Scenes, or there are not any where you live, you can apply these techniques any decoration where there are stars, which are not lacking at this time in most places.

You can find more ideas like this on the website of **NASE**:

http://sac.csic.es/astrosecundaria/es/material_complementario/MaterialComplementario.php