IAU-OAD Strategic Plan 2010-2020

ASTRONOMY

OPTICS
High-precision adaptive optics

COMPUTERS
Fastest hardware
Complex software

ELECTRONICS
Most sensitive detectors
Fastest clocks

SPACE
Satellite Miniaturization
Precision

PHYSICS
Laboratory of extremes
Making heavy elements

CHEMISTRY
Producing organic molecules

BIOLOGY
Building blocks of life

MATHEMATICS
Abstract thought

ANTHROPOLOGY
Ancient civilizations
Our roots

HISTORY
Evolution of Universe
Our roots

INSPIRATION
Career in science and technology

PERSPECTIVE
IMMENSITY OF UNIVERSE
Tolerance and global citizenship

TECHNOLOGY AND SKILLS

CULTURE AND SOCIETY

IAU Office of Astronomy for Development
www.astro4dev.org
Mission of the IAU Office of Astronomy for Development

To help further the use of **astronomy** as a tool for **development**

by mobilizing the **human and financial resources necessary**

in order to realize its **scientific, technological and cultural benefits to society**.
Structural overview of the OAD

IAU President, Gen Sec, Div C President

OAD Steering Committee

OAD

Kevin Govender (Director)
JC Mauduit (Project Officer)
Nuhaah Solomon (Admin Officer)

Regional Coordinators

Astronomy for Universities and Research
Astronomy for Children and Schools
Astronomy for the public
OAD Regional Nodes

OAD Regional Nodes:
- East Asia
  - China
- South East Asia
  - Thailand
- South Africa
  - East Africa
    - Ethiopia
    - Zambia
  - Nigeria
    - CBSS
    - Andean Partners
- Armenia
- Colombia
  - Andean Partners
- Burkina, Gabon
  - Francophone
- Poland
  - Eastern Europe
- Brazil
  - Portuguese
- Eastern Europe
  - Burkina, Gabon
  - Francophone
- Zambia
  - CBU

OAD Global Office:
- Global Office, South Africa
- Operational
  - To be signed
- Proposal submitted
  - In discussions

www.astro4dev.org
OAD Task Forces

Task Force 1 (TF1)
- Astronomy for Universities and Research
- Jean-Pierre de Grève (Belgium)
- Richard de Grijs (China)
- Michèle Gerbaldi (France)
- Edward Guinan (USA, Chair)
- Roger Hajjar (Lebanon)
- Edward Jurua (Uganda)
- Katrien Kolenberg (USA, VC)
- Hakim Malasan (Indonesia)
- Shengbang Qian (China)
- Nicole van der Bliek (Chile)

Task Force 2 (TF2)
- Astronomy for Children and Schools
- Rosa Doran (Portugal)
- Edward Gomez (UK, Co-chair)
- Robert Hollow (Australia)
- Ofodum Chukwujekwu Nworah (Nigeria)
- Rosa Maria Ros (Spain)
- Pedro Russo (UNAWE, Co-Chair)
- Cecilia Scorza (Venezuela/Germany)
- Linda Strubbe (Canada)
- Akihiko Tomita (Japan)

Task Force 3 (TF3)
- Astronomy for the public
- Sze-leung Cheung (OAO)
- Thilina Heenatigala (Sri Lanka)
- Sarah Kendrew (EU - New Media)
- Lars L. Christensen (Germany, IAU C55)
- Carolina Ödman (South Africa, VC)
- German Puerta (Colombia)
- Sarah Reed (UK)
- Ian Robson (UK, Chair)
- Kumiko Usida (Japan)
- Nelson Ziping Zhang (China)
OAD Annual Call for Proposals (2012)

Astronomy for Universities and Research

- e.g. University twinning, summer schools, equipment grants, etc
- 42 applications
- € 752 959 requested

Astronomy for Children and Schools

- e.g. Teacher training, resource development, curriculum research
- 94 applications
- € 772 079 requested

Astronomy for the public

- e.g. Journalist training, citizen science, astro-tourism
- 53 applications
- € 310 782 requested

Total Requested:

€ 1 835 820

After evaluations:

€ 968 940 on wish list

18 projects funded

€ 90 000

(10% of demand)
Overview of funded projects in 2013

- Astronomy for Universities & Research
- Astronomy for Children & Schools
- Astronomy for the Public

Online interactive overview of projects: [www.astro4dev.org/funded-projects/](http://www.astro4dev.org/funded-projects/)
## 2013 – Universities and Research

<table>
<thead>
<tr>
<th>#</th>
<th>Title</th>
<th>Country</th>
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<tbody>
<tr>
<td>1</td>
<td>National Workshop on Astronomy &amp; Astrophysics</td>
<td>Nepal</td>
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<td>2</td>
<td>Starlight in the university lab</td>
<td>Nigeria, Zambia</td>
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<td>Astronomy lectures for university students &amp; teachers</td>
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<td>MENA Regional Summer School: &quot;Astronomy with Small Telescopes&quot;</td>
<td>Lebanon</td>
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<td>Strengthening Astronomy Research at University in Rwanda (Phase I)</td>
<td>Rwanda</td>
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<td>6</td>
<td>Guatemalan School of Astrophysics</td>
<td>Guatemala</td>
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<tr>
<td>7</td>
<td>DPRK astronomers research at Huairou solar station</td>
<td>DPRK, China</td>
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<td>Title</td>
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<tr>
<td>1</td>
<td>An astronomical kit for the visually impaired</td>
<td>Spain, several</td>
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<td>2</td>
<td>Mathare Ambassadors of Astronomy</td>
<td>Kenya</td>
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<td>3</td>
<td>Galileo Teacher Training Program (GTTP)</td>
<td>Nepal</td>
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<td>4</td>
<td>NASE Africa</td>
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<td>5</td>
<td>Astronomical measurements in Ancient Greece</td>
<td>Greece</td>
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<td>US, model for others</td>
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<td>Astronomía Periférica (Peripheral Astronomy)</td>
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<td>3</td>
<td>Chinese Ancient Poetry Astrophotography</td>
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<td>4</td>
<td>Coordinating Astronomy for Public Outreach in Viet Nam: Bringing Astronomy to Remote Areas</td>
<td>Vietnam</td>
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<td>5</td>
<td>Limpopo Astronomy Public Outreach (LAPO)</td>
<td>South Africa</td>
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<tr>
<td>6</td>
<td>Dark Skies Outreach to Sub-Saharan Africa</td>
<td>Several in Africa</td>
</tr>
</tbody>
</table>
**Strengthening Astronomy Research at the University level in Rwanda**

**Project leader:** Dr. Pheneas Nkundabakura

- In 2009, IAU donated computers to help students & lecturers to learn and use astronomy software
- New era of Astronomy research: can be done locally anywhere using online data mining

  need staff training

**Short term:** Workshop in Kigali to build a research team trained on data reduction software

**Long term:** *Extend to the whole region* and to build a *pan-East-African research team* able to reduce multi-λ photometric and spectroscopic data (making use of SKA & Entoto observatories)
**TF1 - funded projects**

**Strengthening Astronomy Research at the University level in Rwanda**

- Photometric and spectroscopic data reduction techniques
- Background theory on the spectroscopic & photometric properties of stars and galaxies
- Search online VO available data

1. Dr Petri Vaisanen (SAAO) [Facilitator]
2. Dr Mirjana Povic (IAAS- Spain) [Facilitator]
3. Dr Pheneas Nkundabakura (KIE)
4. Mr Mahoro Antoine (KIE)
5. Mr Celestin Sindikubwabo (KIE)
6. Mr Claver Hitimana (KIE)
7. Mrs Agnes Dusabemungu (KIE)
8. Mr Kizito Ndihokubwabo (KIE)
9. Dr Kondakova Elena (NUR)
10. Prof. Kondakov Oleg (NUR)
11. Dr Nzabonayo Pierre (University of Burundi)
**DPRK Astronomy – researchers at the Huairou solar station**

**Project leader:** Prof. Richard de Grijs

- **Purpose of project:** to train 2 astronomers to improve the research level in Solar physics at Pyongyang Astronomical Observatory (PAO)


- **Transfer** data processing techniques (FITS, IDL & SSW package), to staffs and students at PAO.

- **Paper submitted** to A&A on the magnetic helicity injection through the photosphere
National Workshop on Astronomy & Astrophysics in Kathmandu, Nepal

Project leader: Prof. Binil Aryal

- **June 24th – 27th, 2013**, Central Department of Physics, Tribhuvan University, Nepal
- 9 lectures and 21 tutorials for ≈60 participants from everywhere in Nepal
- Provided an exposure to the virtual observatories (VO), databases, softwares and basic programming
- Aimed to familiarize students with the process of problem identification as well as problem solving procedures
TF1 - funded projects

National Workshop on Astronomy & Astrophysics in Kathmandu, Nepal

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<td>Sunil Ladauri</td>
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<td>56</td>
<td>Utsav Shrestha</td>
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<td>57</td>
<td>Yadav Prasad Kandel</td>
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</table>
**Starlight in the university: “Astrolab”**

**Project leader:** Prof. Jean-Pierre de Greve

- Astrolab allows students to do remote observations on their normal study time.

- Astrolab has already been implemented at the Vrije Universiteit Brussel for 5 years.

- Tutors manual nearly ready, student manual for projects available.

- Implementation being carried out in 2 partner universities, Anambra State University in Nigeria, and the Copperbelt University in Zambia (computers ready).
Astronomy lectures for university students and teachers in Accra, Ghana

Project leader: Dr. Jacob Ashong

- A workshop for astronomy development at the Accra Planetarium to university students & teachers

- Reducing the “knowledge gap” between students and researchers in the region and those in other parts of the world where highly-developed astronomy research facilities exist

- Bringing together University students and international astronomy educators to promote and encourage the higher level study of Astronomy and make a contribution to taking it forward as part of the country’s development in science and technology
Astronomy lectures for university students and teachers in Accra, Ghana

**Local impact:**
- 6 university students
- 17 Research Scientists & Lecturers
- 5 Science teachers
- 6 Government related officials
- 11 others participants
- 45 total participants + 2 high-level officials from the Ministry of Environment, Science and Technology.

**Country-wide coverage:**
- “TV3”, “Multi TV for kids”, “Metro TV”
- “Unique Radio” (Ghana Broadcasting Company)
- Internet Newspaper Report “Government urged to invest in astronomy"
Astronomy lectures for university students and teachers in Accra, Ghana

TF1 - funded projects
MENA Regional Summer School “Astronomy with small telescopes”, Lebanon

Project leader: Prof. Roger Hajjar

• “Small telescopes are optimal for the developing world. They can be used for public outreach, education, and with the proper instrumentation, astronomical research”

• 40 students. Instructors will be astronomers from Lebanon, the region, and from Europe and North America.

• Website went live but now offline:

• School was postponed due to security risks in the region.
The first "Guatemalan School of Astrophysics", Guatemala

Project leader: Dr. Eduardo Rubio-Herrera

- Launch of the first ever GUAtemalan School of Astrophysics (GUASA) to be held in a rural area of Guatemala every 2 years

- 33 students from local Central American/Caribbean undergraduate with experts from prestigious astronomical institutions from around the world

- Martin Still (NASA Ames Research Centre), Sara Seager (MIT), David Ardila (Caltech), Mihkel Kama (Leiden University) and Silvia Torres-Peimbert, IAU President Elect, gave lectures on Exoplanets
Astronomical kit for the visually impaired (kits to Asia, Africa, South America & Galileo Mobile project)

Project leader: Dr. Amelia Ortiz-Gil

Kits consist of:

- A planetarium show with original soundtrack in various languages and a half-sphere with constellations engraved
- Booklet of activities
- Tactile 3D Moon with a booklet of Moon activities
- Set of the FETTU braille sheets with an activity guide, and (e) a book on tactile astronomy.

http://astrokit.uv.es/donate.html
TF2 - funded projects

Astronomical kit for the visually impaired (kits to Asia, Africa, South America & Galileo Mobile project)

Antonieta Garcia (Chile)
Divyadarshan Purohit (India)
Lynnette Foster (South Africa)
Musso Sebastián (Argentina)
Alessandro Martins (Brazil)
Chuck Ruehle (Tanzania)
Cassius A. M. de Melo (Brazil)
Juan Camilo Casas (Colombia)
Rebecca Carvalho (India)
Saeed Sadeghi Mehr (Iran)
Cecilia Scorza (Germany)
Pedro Russo (Netherlands)
Lina Canas (Portugal)
Felipe Robaina Bressiani (Brazil)
Alejandro Jimenez (Cuba)
Suman Gautanm (Nepal)
Ana Paula Malvina (Brazil)
Alejandro Estrada (Colombia)
Galileo Mobile
Marcy (Costa Rica)
Alvaro Jose Mejia (Colombia)
Mani (India)

Still trying to raise funds to ship the remaining kits

www.astro4dev.org

IAU Office of Astronomy for Development
Mathare Ambassadors of Astronomy, Nairobi, Kenya

Project leader: Ms. Katarzyna Tekien

- Training of Trainers: 12 selected teachers undergo training on astronomy
- Introduction of Astronomy to Mathare Schools: training of 54 school teachers
- 20 schools from Mathare will be provided with total of 35 Galileoscopes and toolkit & of lessons on practical astronomy to deliver in the classroom
- Workshops in classrooms: astronomy lessons for 1500 primary school students
- Mathare Astronomy Exhibition: display of astronomy artefacts created during teachers’ trainings and workshops for students
TF2 - funded projects

Mathare Ambassadors of Astronomy, Nairobi, Kenya

Promoting Science through Astronomy

TF2B - Astronomy for Children and Schools

IAU Office of Astronomy for Development www.astro4dev.org
**Galileo Teacher Training Program (GTTP), Nepal**

**Project leader:** [Mr. Sudeep Neupane](mailto:Mr.Sudeep.Neupane@astro4dev.org)

- 43 new Galileo teachers with the new hope of growing the community throughout the country.
- 8 lecturers
- 12 students (9th grade)
- 3 lectures, 4 workshops

Global impact in schools in Nepal
Network for Astronomy School Education

Project leader: Prof. Rosa Ros

Purpose: To act before the university in the curricula of children and teenagers:

- NASE specific to Secondary and Primary schools teachers

- Organising a Local Organising Committee (LOC NASE group of 6-8)

- Courses organised for teachers in Kenya in 2013, to be organised in 2014 in Ghana & Nigeria
**Astronomical measurements in Ancient Greece for students**

**Project leader:** Dr. Athanasios Taramopoulo

Ancient Greek philosophers have made a number of accurate astronomical measurements and created successful models to describe the wonders of the Cosmos

- Students carrying out these measurements can appreciate how an innovative mind can explore the universe

- Have students reach out in the community and the public: everyone can realize that the cosmos is within everybody’s grasp to explore, as the Ancient Greek astronomers did

- Go global & share resources with other teachers
Astronomy for the extremely ill/traumatically injured children & their families, USA

Project leader: Dr. Donald Lubowich

“A home away from home for families of critically ill or traumatically injured children undergoing medical treatment in hospitals”

- Astronomy as a **soothing mechanism**: a diversion to take their minds off their illness during a stressful time for the kids and their families

- The RMH-Chicago education staff are being trained on go-to telescopes, astronomy outreach software, demonstration materials to sustain momentum

- 4 different locations (up to 5) in Chicago with 8 staff being trained (18-20 rooms, largest 84 rooms).

- Expand: 260 in the US and 60 in other countries

IAU Office of Astronomy for Development www.astro4dev.org
Astronomy for the extremely ill/traumatically injured children & their families, USA

TF3 - funded projects

Ethiopia

USA

Syria

Barbados

USA
Astronomía Periférica – art & astromomy, Colombia

Project leader: Dr. Jaime Forero-Romero

Brings the poetic force of astronomy into the periphery of Latin-American cities blending *art, design and science*

- ‘*Satelistica*’ deals with sonorizations and visualizations of satellite observations
- ‘*Macrocosmos & Domestic Microcosmos*’ uses household items as sculptures reminding us that we live in a planet traveling through the Universe
- ‘*Notebook Universe*’, a year-long project focusing on amateur drawing of naked eye and small telescope observations.

https://vimeo.com/64349943
Chinese Ancient Poetry Astrophotography, China

Project leader: Ms. Bing Li

Our ancestors were closer to the night sky than we are. Celestial objects are mentioned in many Chinese ancient poems or stories and saw the same sky 1200 years ago.

- Gathers literature teachers, astronomers & photographers to produce 40 pictures inspired from Chinese poetry
- Posted on the Beijing Planetarium website & exhibition hall
- Example to unite and inspire more people to provide different culture astronomical poems and astrophotography from all over the world
Bringing Astronomy to Remote Areas in Vietnam (Phase I)

Project leaders: Dr. Nguyen Luong Quang, Dang Tuan Duy & Nguyen Tan Vu

- Aimed at building up a coherent, unique website to coordinate activities of amateur astronomy clubs in Vietnam & spread astronomical news

- Organising various observing nights and hands-on activities in remote provinces to *increase awareness of people about astronomy*. 
**TF3 - funded projects**

**Limpopo Astronomy Public Outreach, SA**

**Project leader:** [Mr. Kosma Coronaios](#)

*Limpopo Astronomy Public Outreach:* 13 visits to various towns in the Limpopo Province of South Africa over the course of a 5 month period

- 29 March – Polokwane (Mall of the North)
- 06 April – Bela Bela (Warmbaths, Forever Resorts)
- 18 May – Modimolle (Nylstroom)
- 25 May – Forever Resorts Tshipise
- 15 & 16 June – Thoyandou and Giyani
- 02 August – Makhado annual show
- 08 & 09 August – Tzaneen (Letaba, Expo)
Dark Skies Outreach to Sub-Saharan Africa, USA/Africa

Project leader: Dr. Connie Walker

Implement the successful Dark Sky Rangers / GLOBE at Night citizen scientist program in 12 African countries: Algeria, Ethiopia, Gabon, Ghana, Namibia, Nigeria, Rwanda, Senegal, South Africa, Tanzania, Uganda, Zambia

The GLOBE at Night program, hosted by the US National Optical Astronomy Observatory (NOAO), is an international citizen-science campaign to raise public awareness of the impact of light pollution

- Invites citizen-scientists to record the brightness of the night sky by visually matching the appearance of a constellation like Orion with star maps of progressively fainter stars or using meters

- Set of environmental/astronomy-based lesson plans for grades 3 through 12 that help students learn the importance of maintaining dark skies.

- Potential for International Year of Light
**Dark Skies Outreach to Sub-Saharan Africa, USA/Africa**

<table>
<thead>
<tr>
<th>Country</th>
<th>Coordinator</th>
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<tbody>
<tr>
<td>Algeria</td>
<td>Jamal Mimouni</td>
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<tr>
<td>Ethiopia</td>
<td>Solomon Tesemma</td>
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<td>Gabon</td>
<td>Patrice Okouma</td>
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<td>Ghana</td>
<td>Jacob &amp; Jane Ashong</td>
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<td>Kenya</td>
<td>Paul Baki</td>
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<td>Rob Johnstone</td>
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<td>Zambia</td>
<td>Prosper Simpemba</td>
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*Figure 1.* African Countries in the Dark Skies Outreach Program

*Figure 3.* Dark Skies Outreach for Sub-Saharan Africa

### First Google+ Hangout Session on Shielding Lights

*Connie Walker*
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<tr>
<td>TF1B</td>
<td>DPRK astronomers research at Huairou solar station</td>
<td>DPRK, China</td>
<td>Completed</td>
</tr>
<tr>
<td>TF1C</td>
<td>National Workshop on Astronomy &amp; Astrophysics</td>
<td>Nepal</td>
<td>Completed</td>
</tr>
<tr>
<td>TF1D</td>
<td>Starlight in the university lab</td>
<td>Nigeria, Zambia</td>
<td>Completed (2 yr project)</td>
</tr>
<tr>
<td>TF1E</td>
<td>Astronomy lectures for university students &amp; teachers</td>
<td>Ghana</td>
<td>Completed</td>
</tr>
<tr>
<td>TF1F</td>
<td>MENA Regional Summer School: &quot;Astronomy with Small Telescopes&quot;</td>
<td>Lebanon</td>
<td>Postponed</td>
</tr>
<tr>
<td>TF1G</td>
<td>Guatemalan School of Astrophysics</td>
<td>Guatemala</td>
<td>Completed</td>
</tr>
<tr>
<td>#</td>
<td>Title</td>
<td>Country</td>
<td>Status</td>
</tr>
<tr>
<td>------</td>
<td>---------------------------------------------------------</td>
<td>--------------------------</td>
<td>-------------------------------</td>
</tr>
<tr>
<td>TF2A</td>
<td>An astronomical kit for the visually impaired</td>
<td>Spain, several</td>
<td>50% kits delivered</td>
</tr>
<tr>
<td>TF2B</td>
<td>Mathare Ambassadors of Astronomy</td>
<td>Kenya</td>
<td>Completed</td>
</tr>
<tr>
<td>TF2C</td>
<td>Galileo Teacher Training Program</td>
<td>Nepal</td>
<td>Completed</td>
</tr>
<tr>
<td>TF2E</td>
<td>NASE Africa</td>
<td>Kenya, Ghana, Nigeria</td>
<td>1/3 completed (Expected mid-2014)</td>
</tr>
<tr>
<td>TF1F</td>
<td>Astronomical measurements in Ancient Greece</td>
<td>Greece</td>
<td>Completed</td>
</tr>
</tbody>
</table>
## 2013 – Astronomy for the Public

<table>
<thead>
<tr>
<th>#</th>
<th>Title</th>
<th>Country</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>TF3A</td>
<td>Astronomy for Extremely ill or Traumatically Injured Children and Their Families</td>
<td>US, model for others</td>
<td>Completed</td>
</tr>
<tr>
<td>TF3B</td>
<td>Astronomía Periférica (Peripheral Astronomy)</td>
<td>Colombia</td>
<td>Completed</td>
</tr>
<tr>
<td>TF3C</td>
<td>Chinese Ancient Poetry Astrophotography</td>
<td>China</td>
<td>Ongoing</td>
</tr>
<tr>
<td>TF3D</td>
<td>Coordinating Astronomy for Public Outreach in Viet Nam: Bringing Astronomy to Remote Areas</td>
<td>Vietnam</td>
<td>Completed (Phase I)</td>
</tr>
<tr>
<td>TF3E</td>
<td>Limpopo Astronomy Public Outreach (LAPO)</td>
<td>South Africa</td>
<td>Completed</td>
</tr>
<tr>
<td>TF3F</td>
<td>Dark Skies Outreach to Sub-Saharan Africa</td>
<td>Several in Africa</td>
<td>Ongoing (Expected January 2014)</td>
</tr>
</tbody>
</table>
OAD Annual Call for Proposals (2013)

- **Astronomy for Universities and Research**
  - 2012 Call (191)
    - 42 applications
    - € 752,959 requested
  - 2013 Call (230)
    - 54 applications
    - € 919,308 requested

- **Astronomy for Children and Schools**
  - 2012 Call (191)
    - 96 applications
    - € 772,079 requested
  - 2013 Call (230)
    - 113 applications
    - € 864,731 requested

- **Astronomy for the public**
  - 2012 Call (191)
    - 53 applications
    - € 310,782 requested
  - 2013 Call (230)
    - 63 applications
    - € 453,805 requested

- Before eval: € 1,835,820
- On wish list: € 968,940
-≈20% increase from 2012
Online Call for Proposals 2013 (CfP2013)

- A large number of proposals (230)
- TF1=54, TF2=113, TF3=63
- Very wide geographical spread
- Translated documents (call, form) in Portuguese, Spanish, Arabic, Russian, Chinese, French
Online Call for Proposals 2013 (CfP2013)

- Online system performed well
- Online feedback on CfP was positive
- Improvements for the future: ongoing document
## 2014 – Universities and Research

<table>
<thead>
<tr>
<th>#</th>
<th>Title</th>
<th>Country</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Regional School on Astrophysical Data Reduction</td>
<td>Nepal</td>
</tr>
<tr>
<td>2</td>
<td>Starlight in the university lab</td>
<td>Nigeria &amp; Zambia</td>
</tr>
<tr>
<td>3</td>
<td>Strengthening Astronomy Research at University in Rwanda (Phase II)</td>
<td>Rwanda</td>
</tr>
<tr>
<td>4</td>
<td>Joint Exchange Development Initiative for Africa</td>
<td>Namibia</td>
</tr>
<tr>
<td>5</td>
<td>Latin American School of Observational Astronomy</td>
<td>Mexico</td>
</tr>
<tr>
<td>6</td>
<td>Institute twinning between the University of Antioquia (Colombia) and Leiden Observatory</td>
<td>Colombia</td>
</tr>
<tr>
<td>7</td>
<td>Sustaining astrophysics development in Vietnam at the MSc/PhD level in radio astronomy</td>
<td>Vietnam</td>
</tr>
<tr>
<td>#</td>
<td>Title</td>
<td>Country</td>
</tr>
<tr>
<td>----</td>
<td>----------------------------------------------------------------------</td>
<td>--------------------------</td>
</tr>
<tr>
<td>1</td>
<td>Astro party</td>
<td>Bulgaria</td>
</tr>
<tr>
<td>2</td>
<td>Modern Astronomy: Science/Technology Transfer in the SEA-ROAD Region</td>
<td>Australia, Thailand</td>
</tr>
<tr>
<td>3</td>
<td>Astronomy Skits for Secondary School Science Education</td>
<td>UK, USA</td>
</tr>
<tr>
<td>4</td>
<td>The Universe - our home full of wonders</td>
<td>Poland</td>
</tr>
<tr>
<td>5</td>
<td>eScience Cafe: Building a global science community</td>
<td>USA</td>
</tr>
<tr>
<td>6</td>
<td>Conduction of astronomical activities to motivate students in Public schools of Nepal</td>
<td>Nepal</td>
</tr>
<tr>
<td>7</td>
<td>The UNAWE-UNESCO-Mobil I for Central America</td>
<td>Central America</td>
</tr>
<tr>
<td>8</td>
<td>E-Teacher Training: Taking astronomy to the Portuguese Speaking Countries community</td>
<td>Lusophone world</td>
</tr>
</tbody>
</table>
## 2014 – Astronomy for the Public

<table>
<thead>
<tr>
<th>#</th>
<th>Title</th>
<th>Country</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Documentary Series on Astronomy Research in India</td>
<td>India</td>
</tr>
<tr>
<td>2</td>
<td>Communication and (social) media skills for young astronomers</td>
<td>South Africa</td>
</tr>
<tr>
<td>3</td>
<td>Nanotarium: The Most Inexpensive, Quality DIY Planetarium on Earth</td>
<td>United States</td>
</tr>
<tr>
<td>4</td>
<td>Yunnan Minority Regions Astronomical Popularization Footprint Map Plan</td>
<td>China</td>
</tr>
<tr>
<td>5</td>
<td>Accessible Citizen Science for the Developing World</td>
<td>UK</td>
</tr>
<tr>
<td>6</td>
<td>Training of Policy Makers in Ethiopia</td>
<td>Ethiopia</td>
</tr>
<tr>
<td>7</td>
<td>Coordinating Astronomy for Public Outreach in Viet Nam (Phase 2)</td>
<td>Vietnam</td>
</tr>
</tbody>
</table>
Overview of funded projects in 2013

- Astronomy for Universities & Research
- Astronomy for Children & Schools
- Astronomy for the Public

www.astro4dev.org/funded-projects/
Overview of funded projects in 2014

http://www.astro4dev.org/funded-projects-2014/
OAD wish list projects for 2014

<table>
<thead>
<tr>
<th>Call for Proposals 2013 - TF2</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Contact person</strong></td>
</tr>
<tr>
<td>Donald Lubowich</td>
</tr>
<tr>
<td><strong>Contact email</strong></td>
</tr>
<tr>
<td><a href="mailto:donald.lubowich@hofstra.edu">donald.lubowich@hofstra.edu</a></td>
</tr>
<tr>
<td><strong>Project details</strong></td>
</tr>
<tr>
<td><strong>Task Force</strong></td>
</tr>
<tr>
<td>2</td>
</tr>
<tr>
<td><strong>1. Project title:</strong></td>
</tr>
<tr>
<td>Astronomy for Low-income Extremely ill or Traumatically Injured Children and Their Siblings from Latin America</td>
</tr>
<tr>
<td><strong>Project title abbreviation</strong></td>
</tr>
<tr>
<td>RMHASTR</td>
</tr>
<tr>
<td><strong>2. Project summary (maximum 2000 characters):</strong></td>
</tr>
<tr>
<td>This grant provide funding for telescope observations and hands-on astronomy demonstrations for low-income (many below the poverty level) children and their siblings from Latin America, staying at the Ronald McDonald Houses (RMHs) of Springfield, MA or Campinas, Brazil. The children are undergoing surgery and medical treatments at nearby hospitals. The project will provide an educational out-of-this world diversion from the stress of being sick or of having a sick family member hospitalized. The RMH staff will be taught to use telescopes and do demonstrations to insure the sustainability of this grant. The RMHs are a &quot;home away from home&quot; for families of critically ill or traumatically injured children undergoing medical treatment in nearby hospitals. They provide a comfortable, supportive alternative atmosphere to</td>
</tr>
</tbody>
</table>

Wish list projects currently looking for funding: [www.astro4dev.org/2014-wish-list-projects/](www.astro4dev.org/2014-wish-list-projects/)
Evaluating projects & measuring Impact

Framework developed in partnership with the Institute for Monitoring and Evaluation at the University of Cape Town:

- A programme Theory (Theory of Change)
- Identification of appropriate outcomes
- Generation of suitable indicators and measures
- Database and data collection templates
- Documented procedures for data collection and management
Current interns & their projects

Rajin loves teaching science as well as topics related to computing. He has just started working on a project which aims at improving the skills of astronomical programming for historically black South African universities and undergraduate students in Africa.

Eli has a strong passion helping develop the study of Astronomy in places that lack knowledge in this field, especially in the Square Kilometer Array Africa partner countries where Human Capacity Development programs are a high priority. He is currently working on developing resources based on the Khan Academy project, as well as the AstroPack.

Laure is currently leading two projects at the OAD, the first one evaluating the impact of different outreach and education programs in collaboration with social scientists and education researchers and the second one aimed at developing an undergraduate astronomy course for historically black universities.
An example of OAD interns’ project

Workshop University of Zululand, South Africa [15th-17th July 2013]

"Introducing astronomy at the undergraduate level: Bridging the gap"

Laure Catala, OAD intern & PhD candidate at SAAO/UCT

Education: Astronomy practicals in physics courses

Research: Projects with small telescopes & VO data

Outreach: Astronomy amateur club

Cost-effectiveness

Grant application to expand to 5 HBUs

IAU Office of Astronomy for Development
www.astro4dev.org
I was quite impressed by the IAU Workshop held at The University Of Zululand on the 15th until 17th of July this year.

This was my first time attending an Astronomy based event. Frankly speaking, I was thinking that people were ignoring Astronomy. Since my seventh year grade, I have been fascinated by the stars in the night sky, and so I set on studying more about the universe on my own with the help of encyclopedia books and other publications, but as the time went by, it seemed as if people had less interest on the space physics or astronomy, which is why I chose BSc Applied Math and physics as a course after matriculation. As I delved deeper in physics and mathematics I found that astronomy is actually everywhere and physics and mathematics helped me to understand astronomy even better, because the universe is defined by physical laws explained in mechanics, nuclear physics and other fields of Physics. […]

And BOOM! came the IAU workshop, they gave light to my flame which was beginning to die due to lack of support. They actually enlightened me that Astronomy is alive and is growing bigger and better (which came as a relief to me). And I actually didn’t want that workshop to end. My flame was beginning to die due to lack of support but they actually enlightened me that Astronomy is alive and is growing bigger and better. The three days we spent with the IAU group felt like few minutes to me. I would actually like to form an Astronomy Club or Astrophysics Club which will « reach out » from the University to the community And High Schools.

Thanks to Laure and Jean-Christophe from IAU
Ongoing collaborations

- Royal Astronomical Society
- Netherlands Organisation for Scientific Research
- International Science Programme (Uppsala)
- International Centre for Theoretical Physics
- Inter-University Centre for Astronomy and Astrophysics
- University of Central Lancashire
- Haus der Astronomie

The OAD is looking for partnerships [http://www.astro4dev.org/partners/](http://www.astro4dev.org/partners/)
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- Mailing list: http://www.astro4dev.org/contactus/emaillists/
- Contact us at info@astro4dev.org