

Barriers IV: International Funding & Collaboration

Panelists

Paul Groot (Univ. Cape Town / SAAO / Radboud)

Mansi Kasliwal (Caltech, USA)

Jane Dai (Univ. Hong Kong, China)

Patricia Whitelock (SAAO, UCT, African Astronomical Society)

Brian Schmidt (ANU, IAU)

Paul Groot

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The start-up barrier, and being generous or being alone

- Astronomy is a low-threshold attractor for STEM and Data Sciences
- General appeal among the public, and no ethics issues of Big Data
- Global participation to grow → New players on the field
- Time-domain appealing →
24/7 coverage and modest-telescope contributions

→ *Threshold(s) for successful participation*

The start-up barrier, and being generous or being alone

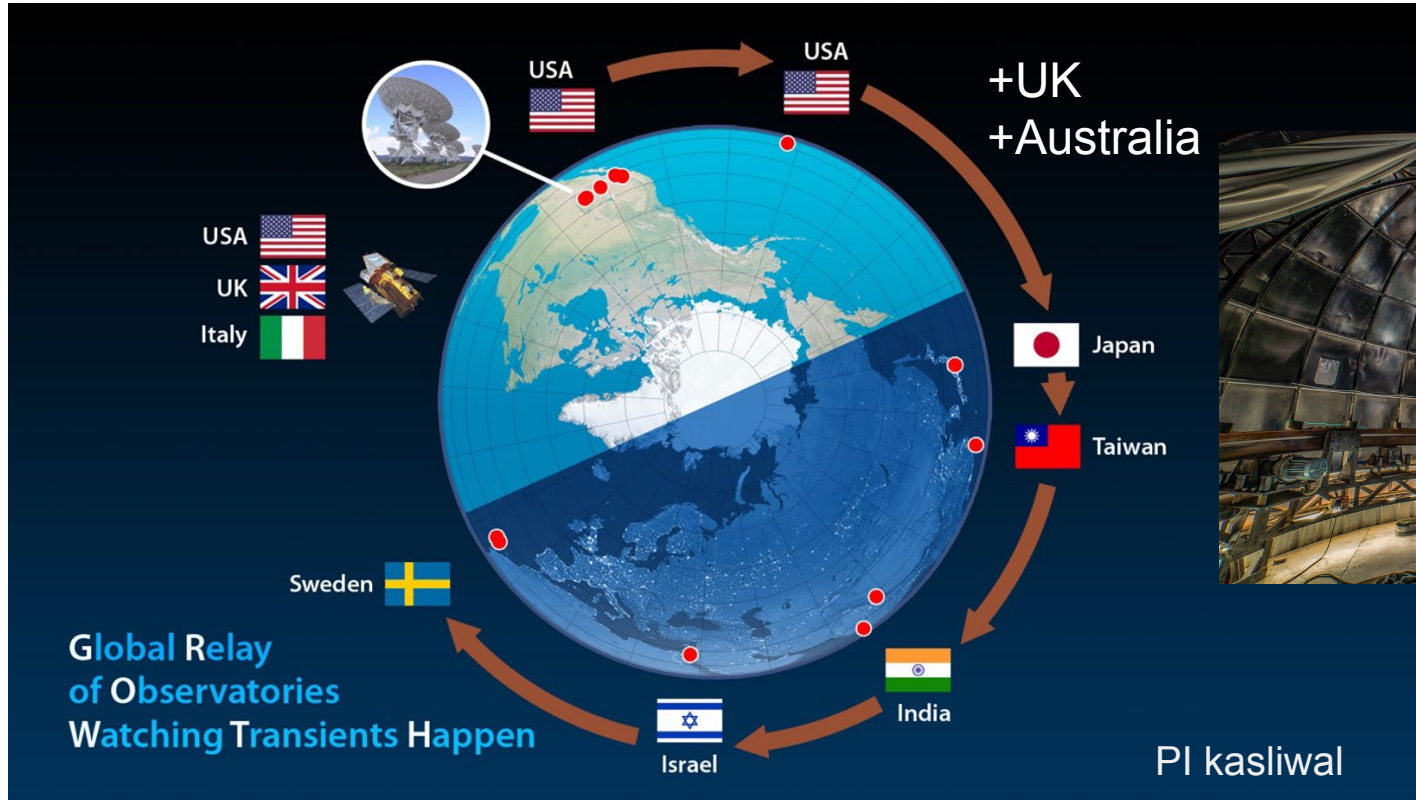
- Having a telescope is not enough:
An observatory as big (national) science proxy, needs **governance**
- Often initiatives fail (or never get started) on proper governance:
 - Host organisation (University, a National Science Foundation, Govern.?)
 - Long-term perspective, not just a one-off hardware investment
 - Operations plan
 - Science embedding nationally
 - International embedding

Observatory Governance

- Is there a **role** for (inter)national observatories to foster governance? (ESO, SAAO, NOAO, NRAO, AAL, ...)
- Is it in the **self-interest** of established observatories to foster governance?
- Do some observatories run the risk to be so far ahead of the pack that they are alone and then irrelevant?

Mansi Kasliwal (Caltech, USA)

GROWTH: Partnership in International Research and Education



GROWTH-I
India
Telescope

PI kasliwal

An Multi-National Inter-agency Co-operation Program



Single Peer Review; multiple grants awarded in various countries

NANOGrav and GROWTH were the only two physics/astronomy PIRE programs

Sadly, PIRE is now discontinued. What can we do to revive PIRE?

The Zwicky Transient Facility Global Partnership Model



A public-private international partnership that created an unprecedentedly productive time-domain discovery engine! (1450+ papers, h-index 76)

How do we together build what no one country can build alone?

A Chinese Perspective on Global Collaboration

Jane Lixin Dai

Mainland China -> HK -> US (mainly)/Chile/Denmark -> HK

Major Barriers

Geopolitical Restrictions

US-China tension affecting
NASA/NSF and other countries

Bilateral collaboration blocked

Workaround:
trilateral/multilateral channels

Confusion & Fear

National policies shift frequently

People don't know the consequences

Self-censorship, hesitation to engage

Solution:
Can the IAU help clarify policies?

Major Barriers

Funding Agency and Telescope Policies

Conflict data sharing policies across agencies

Chinese metric emphasizes “leadership”
(authorship, citations)

China’s telescope/instrumentation still catching up

Workaround:

- IAU maintains a directory of projects and their PIs / contact persons

Cultural Differences (rarely discussed)

Different communication styles

Different work styles and expectations

Lack of trust across cultures

Solution:

- More open conversations
- Clear protocols (IAU template?)

Positive Aspects & Future Solutions

Successful missions:

- Einstein Probe (CAS-ESA-MPE-CNES): collaboration with ZTF, IceCube ... Optical spectroscopic follow-up resources urgently needed
- SVOM (CNSA-CNES)
- EXTP (CAS+European participation)

Funding and channel exist: e.g. ERC-Hong Kong scheme, Chinese national funding agency actively encouraging international collaboration, EACOA, etc

IAU can help:

- Encourage national funding agencies to establish more funding and clearer channels for international collaborations
- Develop standardized partnership protocols
- Act as neutral facilitator to build trust
- Please suggest more!

Patricia Whitelock (SAAO, Univ Cape Town, AfAS)

The Hidden Barrier to International Collaboration

Mobility is a prerequisite for collaboration

International astronomy depends on:

-  Attend collaboration meetings
-  Visit partner institutions
-  Participate in schools and workshops
-  Build professional networks
-  Establish trust and partnerships



Funding does **not guarantee participation**

If researchers cannot obtain visas, financial support alone is insufficient to bridge the gap.

Visa barriers reduce the return on international investment

Funding Agency

Grant Awarded

Travel Approved

Visa Delayed / Denied

Participation Lost



Missed Events

Conferences and workshops participation lost.



Reduced Voice

Loss of representation in governance.



Career Impacts

Lost opportunities for students and ECRs.



Stalled Growth

Delays in building critical international partnerships.



Lower ROI

Reduced scientific return on funded projects.

Visa barriers convert funded opportunities into unrealised collaborations.

What Can the Astronomy Community Do?

Meeting organisers

- Hybrid participation as standard
- Earlier (~3 months) invitation letters
- Visa support coordinated centrally
- Choice of accessible meeting locations

Collaborations and Projects

- Rotate meetings globally
- Build travel timelines around visa realities
- Support regional hubs and distributed meetings

Funding agencies and societies

- Recognise visa barriers as a project risk
- Provide contingency funding
- Engage in science diplomacy
- Advocate collectively through professional organisations

International collaboration is only as global as the mobility of its participants

A personal note on barriers

Male

White

European

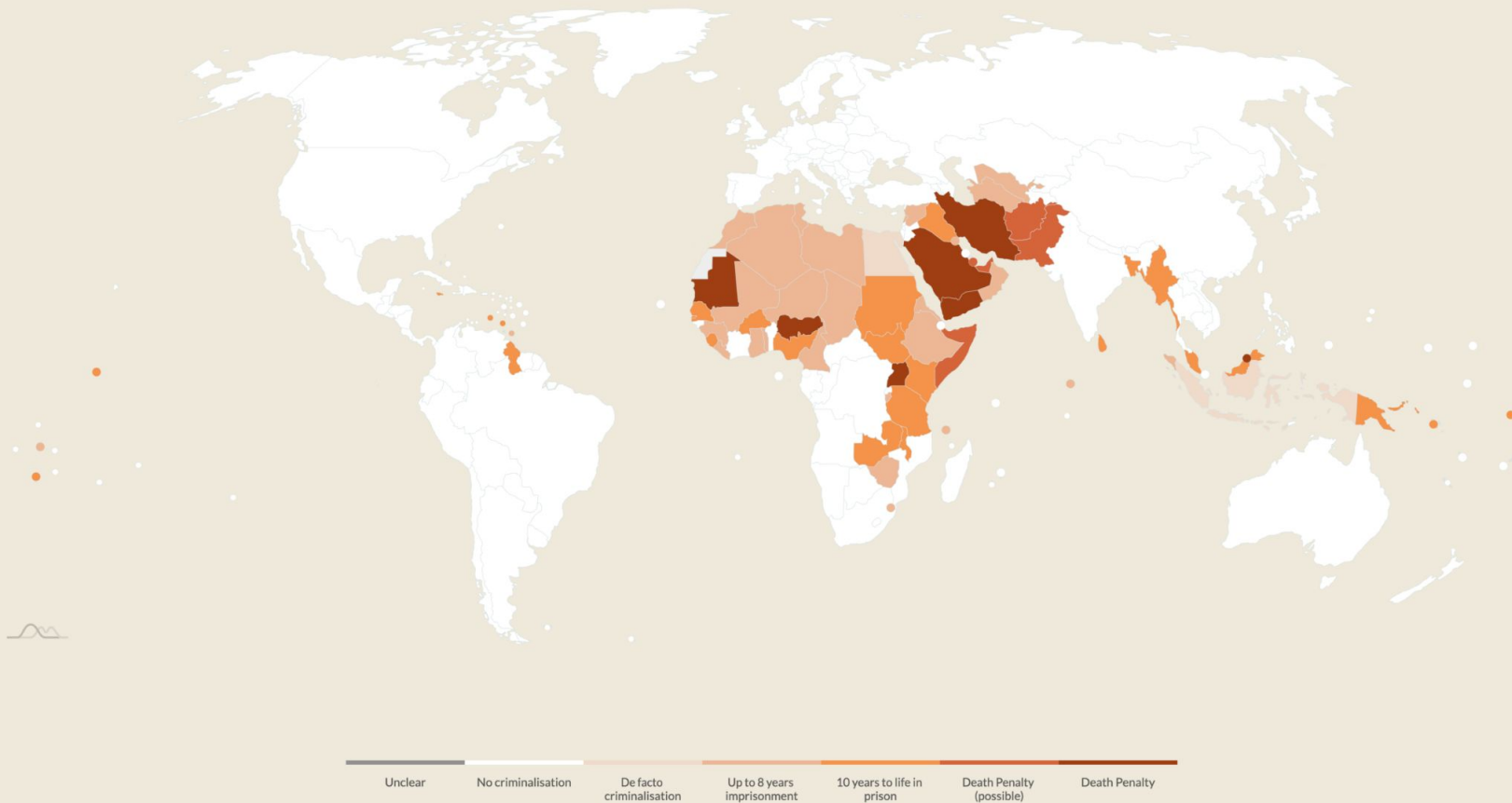
***So, what's the
problem?***



Gay

Criminalisation of consensual same-sex sexual acts

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No

Brian Schmidt ANU/IAU