Towards a Global VLBI Alliance

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Why a Global VLBI Alliance?

• VLBI is a truly collaborative effort

• There are now several VLBI networks established and running
  • With their own characteristics
  • Each is recognised under a unique brand: EVN, EAVN, VLBA, LBA, GMVA, LOFAR, EHT, IVS …

• Often, VLBI networks cooperate, also observe together

• Some radio telescopes belong to more than one VLBI network
  • E.g. Chinese telescopes in EVN and EAVN, Eb(+Ar) in EVN and HSA, etc.
  • Also applicable to new instruments (e.g. Thailand 40m)

• It is convenient to have a permanent forum
  • where the network representatives can meet
  • where the VLBI users can discuss and present their current issues and future needs
  • also as point of contact for collaboration with third-party instruments
Why a Global VLBI Alliance? (II)

• **To share information** in a timely and structured way between VLBI networks
  - Strategic developments (also to exploit *complementarity*)
  - Science vision
  - Technology paths
  - Proposal types, deadlines and evaluation
  - Logistics
  - Scheduling
  - And keep inventory of the developments

• For (non-expert) users and other stakeholders to have a clear and **visible entry/contact point** to the VLBI facilities
  - GVA web
  - Extended user support (also among networks)
  - Support to new facilities and groups (e.g. in Africa, Latin America)
  - Education and outreach of VLBI

• **Also to coordinate joint observations** (but not only)
  - In particular with third parties (multi-messenger)
GVA participant networks

- Very Long Baseline Array (VLBA, USA)
- European VLBI Network (EVN/JIVE)
- East Asian VLBI Network (EAVN)
- Long Baseline Array (LBA, Australia)
- Global mm-VLBI Array (GMVA) - observer
How to set a Global VLBI Alliance?

• As a Working Group in IAU B4

https://www.iau.org/science/scientific_bodies/commissions/B4/

• Proposed structure:
  
  • GVA Director’s Forum (GVAD): VLBI network directors or representatives (2 per network) to discuss any aspect of the global cooperation. By invitation.
  
  • Science Forum (GVAS): evaluates and fosters the unique and complementary contribution of VLBI to astrophysical research. Open to the whole IAU, members are active scientists, not necessarily linked to any of the VLBI networks in the GVA.
  
  • Technical R&D Forum (GVAT): discusses opportunities and coordinates the development of new instrumentation or procedures.
  
  • Operations and Logistics Team (GVAO): facilitates and coordinates observations scheduled with several VLBI networks, or with participation of third-party instruments (e.g. multiwavelength/multimessenger). By invitation.
  
  • Communication and outreach Team (GVAC): coordinates activities and tools to increase the scientific and societal impact of VLBI. By invitation.
  
  • The GVAS, GVAT, GVAO and GVAC, all report to the GVAD.
Timelines

• The GVAD is currently in the process to establish the working group in IAU
• The GVA teams will be established asap (GVAO, GVAC)
• All astronomers will be invited to join the GVA science forum
• The GVA technical forum will start by invitation to VLBI network representatives, and then may be open to other interested parties
• Stay tuned! Please check: http://www.gvlbi.org/