



Gravitational waves Excellence through Alliance Training (GrEAT) network with China

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University of Glasgow
Glasgow, UK

Goals

- The Gravitational-wave Excellence through Alliance Training (GrEAT) Network with China is an STFC funded network which aims to build links between UK-China based on gravitational wave research so as to strengthen capacity for gravitational wave research in China.
- Build links between China and UK gravitational wave communities
- Collaborate to train next generation of gravitational wave researchers
- Enhance gravitational wave research in China and UK



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Structure: Work Packages

- WP1: Economic growth and innovation
 - This work package will focus on identifying potential industrial and commercial partners in China for GW technology and expertise exploitation. Activities will include organising workshops where UK GW teams can showcase their technologies to potential industry partners in China.
- WP2: Quality education and public outreach
 - This work package will, in collaboration with our Chinese partners, provide high-quality training for early-career researchers on the planning and delivery of outreach on gravitational-wave astronomy. We will develop resources suitable for both formal and informal learners
- WP3: Big Data analysis and modelling
 - This work package will provide training on data analysis and numerical modelling that will have applications to gravitational waves and beyond
- WP4: Ultra-high precision measurement technology and instrumentation
 - This work package will build the necessary skill base to develop/fabricate/install and innovate future detector technologies. It will also provide support to grow the necessary expertise for a future GW detector in China.
- WP5: Space GW detectors
 - This work package will support PhD students and early career researchers from Chinese institutions working on space GW detectors to train in the UK in an effort to define the issues and specific needs for their project, thereby fostering long-term collaborative links between the UK and China.

Organisation

- GrEAT network website:
 - <https://great.physics.gla.ac.uk>
- GrEAT mailing list: GREAT-NETWORK@jiscmail.ac.uk
 - contact myself or Mariela Masso to subscribe
- GrEAT repository: <https://owncloud.gla.ac.uk/cloud/s/8bOBJIPuLrp1GTg>
 - upload/download folder: <https://owncloud.gla.ac.uk/cloud/s/wQYGFJqMDnBYPVe>
- Telecons: monthly on Skype

Work plan



- Work plan from proposal & science case

Year	2018				2019			
Quarter	1	2	3	4	1	2	3	4
One-week visits to UK	6				2			
One-month visits to UK	6				6			
One-week visits to China	2				6			
One-month visits to China	3				9			
Workshops	China				China			
Summer schools	China				UK			

- Estimated travel costs (airfare, accommodation, subsistence):
 - short visits (~1 week): ~£1500
 - long visits (~4 weeks): ~£2300

Discussion

- What projects would you and your group like to collaborate on?
- How are we doing so far? How can we do better?
- How should the Work Packages operate?
- How should the GrEAT network proceed?
 - As a facilitator for many small projects?
 - Or try to target one or two main research themes to support?
- Should we try to extend the GrEAT network beyond the current 2 years? If so, in what form?
 - Current project could potentially run until May 2020