



Science and
Technology
Facilities Council

Project application under the Gravitational-wave Excellence through Alliance Training (GrEAT) Network with China

Lead(s) and collaborator (s): name(s) and institution(s)
Nils Andersson (Southampton) and Lap-Ming Lin (Chinese University of Hong Kong)
Student name(s) to work in project if applicable: name(s) and institution(s)
Where will the activity be hosted?

Title of activity and description of the project (50-100 word summary - suitable for reporting to STFC)
Explore the use of universal relations for tidal deformability and the fundamental neutron star mode of oscillation in the context of extracting the tidal imprint - and constraining neutron star physics – with future gravitational-wave observations. Quantify the capability of third generation instruments in this respect.

What would success look like and what are the follow on steps? How will you monitor the project? 50-100 word summary
A clear statement about what is detectable with future instruments – and what this implies for constraints on extreme matter physics.

For questions/comments and submission please contact Prof. Ik Siong Heng (ik.heng@glasgow.ac.uk) Dr. Mariela Masso Reid (Mariela.MassoReid@glasgow.ac.uk) and Prof. Zong-Hong Zhu (zhuzh@bnu.edu.cn).