

STFC-NARIT Newton Fund 6 November 2017

To whom it may concern,

Re: <u>UK-Thailand Capacity Building in Software and Hardware Infrastructures and Data Handling through</u> <u>Astronomy</u>

The Department of Physics at the University of Warwick strongly supports this application to the STFC-NARIT Newton Fund *Using data from astronomical surveys to train Thai students in the analysis of "Big Data"* and the engagement of Dr. Krzysztof Ulaczyk therein at the level of 20% FTE. We are committed to global engagement and the spread of learning, especially to ODA countries such as Thailand, where there are clear opportunities for the growth of a knowledge based economy alongside specific interests in astronomy.

At Warwick, we are very excited about the GOTO project and the possibility of seeing signatures of gravitational wave events in optical signals. Warwick astronomers were centrally involved in the high profile reports of GWs from a neutron star collision observed in the southern hemisphere this year and we eagerly anticipate GOTO's engagement with similar events visible in the north, especially with the enhanced sky coverage enabled by NARIT co-funding. However, this is going to involve an enormous amount of data processing – too much for manual processing – which is where machine learning becomes essential and the participation of Thai data scientists will be of great mutual benefit.

Big Data is also a theme of particular interest across Warwick departments and through our partnership in the Alan Turing Institute, which can provide further opportunities for interactions with computer scientists with expertise in Machine Learning and a broad perspective on diverse applications of Big Data.

Please do not hesitate to contact me if there are any further questions.

Yours faithfully

Prof. David R. LeadleyHead of Department