Dear Colleagues:

I am writing to you regarding possible collaborations on the Discovering the Sky at the Longest wavelength (DSL) project, which is a project to use a satellite array on lunar orbit to make interferometric imaging observations of the sky at frequencies below 30 MHz, and global spectrum measurement at frequencies of 1~120 MHz. These observations will be able to reveal the sky at these unexplored frequency band, and probe the cosmic dawn and dark age. This project concept was first formulated during the ESA-CAS joint call for space science project in 2016. Though not selected at that time, we have continued to work on it, and has just recently completed a three year study of its science cases, basic design and key technologies with the support of the CAS Strategic Priority Research Program (for more detailed description of the project, see Chen et al, Phil. Trans. R. Soc. A.379, 20190566(2020), arxiv:2007.15794).

We are now about to start applying for an engineering project under the CAS Strategic Priority Research Program. Once approved, we expect the mission could be launched in 3 to 4 years, and it would operate for 3 to 5 years in orbit. The project team in China includes core researchers from the National Astronomical Observatories (NAOC), the National Space Science Center (NSSC), and the Shanghai Innovation Academy for Micro-satellites of CAS, as well as scientists from many institutes and universities. To ensure the project get the best and broadest science done with the best techonology, we would also like to call for collaborations from international scientists who are interested in the low frequency radio astronomy or related topics. We welcome collaborations on payload hardware, software, as well as science and technology topics.

If you are interested in this project, please feel free to contact us for further inquiry and discussion. Please also feel free to forward or distribute this message to any colleagues who might be interested.

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