

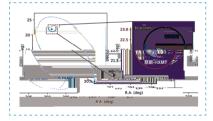


his research group proposed and developed successfully China's first space X-ray astronomy telescope, the Hard X-ray Modulation Telescope (dubbed as *Insight*-HXMT). With the quite unique and important advantages of its wide energy band, large effective area, high time resolution and adequate energy resolution, *Insight*-HXMT opens a new window for the study of hard X-ray timing and spectral properties of black holes and neutron stars, leading X-ray astronomy in China to be a very active and well-recognized field of space science. *Insight*-HXMT discovered the X-ray counterpart associated with the fast radio burst FRB 200428, and identified it as coming from a magnetar. *Insight*-HXMT increased the detection energy of X-ray quasi-periodic oscillations in black hole binary systems by an order of magnitude, and discovered the high-speed jet closest to a black hole. *Insight*-HXMT directly and reliably measured the strongest magnetic field of 0.8 billion Tesla ever observed in the universe.

Outstanding contributors of this research group

As the proposer and the principal investigator (during pre-research and engineering development stages) of -HXMT, Prof. Tipei Li put forward the scientifc theme

detected from a black hole by

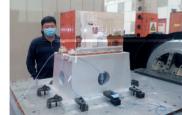


Accurate localization of the FRB associated X-ray burst with -HXMT.

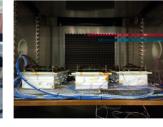
Major contributors

Serving as the current principal investigator of HXMT, Prof. Shuang-Nan Zhang organized the scientific observations of obtain many break-through scientific results.

Serving as the project manager of the
-HXMT scientifc payloads, Prof. Fangjun Lu led the technical team to complete the development of the
-HXMT payloads.



ME-Box in vibration test



LE-Box in thermal-cycle test



ME-Box in thermal-cycle test

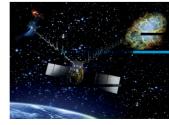


Illustration of the in-orbit demonstration of X-ray pulsar navigation with



-HXMT scientifc payloads

研究集体主要科技贡献:

X X FRB 200428 X X

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Ceremony of starting scientific operation of

研究集体突出贡献者





Group photo of the frst anniversary celebration of HXMT in-orbit



-HXMT identification of an X-ray burst from a magnetar and with FRB.

