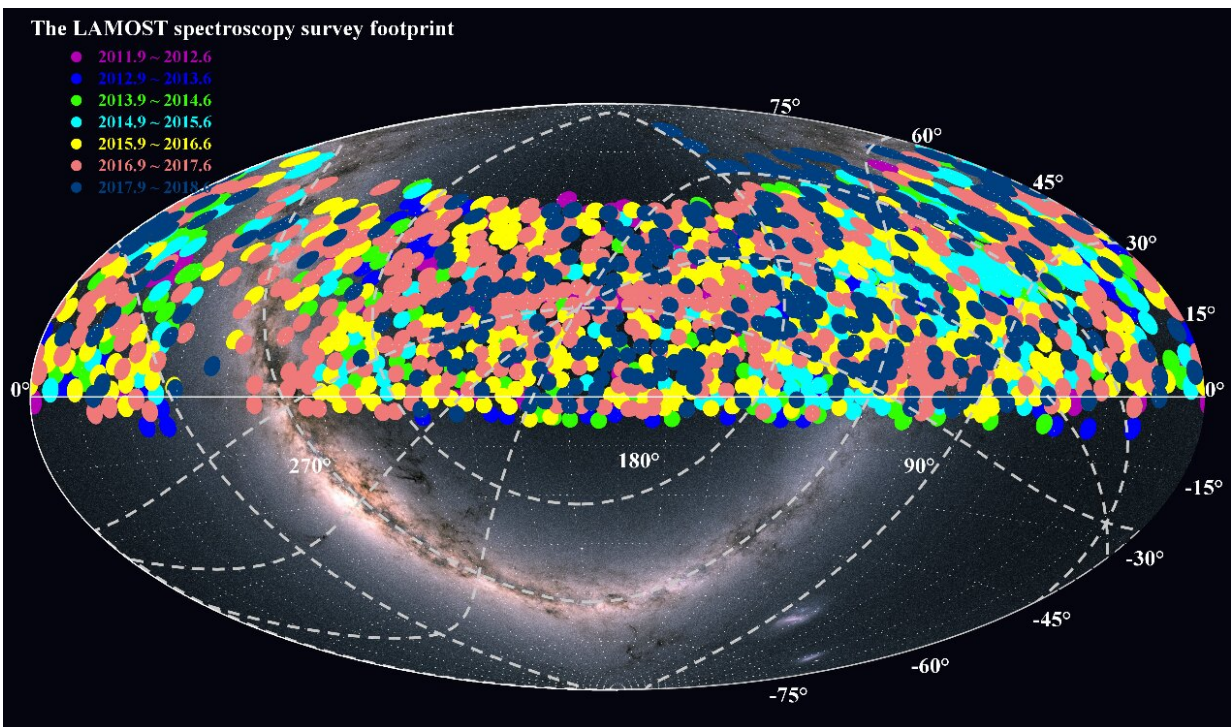


# LAMOST releases its sixth data internationally

October 16 2020, by Li Yuan



Footprint of the LAMOST pilot survey and the six years' regular survey. Credit: LAMOST team

The Large Sky Area Multi-Object Fiber Spectroscopic Telescope (LAMOST) published its sixth Data Release (DR6 v2) to astronomers worldwide on Sept. 30, according to the National Astronomical Observatories of China (NAOC) of the Chinese Academy of Sciences.

DR6 v2 includes all the spectra obtained during the pilot survey through the sixth-year regular survey.

After the first phase of LAMOST regular low-resolution spectroscopic survey, the medium-resolution commissioning was launched in the sixth-year regular survey. In the medium-resolution spectroscopic survey, LAMOST performed the medium- and low-resolution survey alternatively. Therefore, the released DR6 dataset includes both the regular low- and medium-resolution spectral data.

Obtained from the observation of 4,901 plates, a total of 11.27 million spectra are released internationally in the DR6, including 9.91 million low-resolution spectra, 0.5 million medium-resolution non time-domain spectra and 0.86 million medium-resolution time-domain spectra. The number of high-quality ( $S/N > 10$ ) spectra reaches to 9.38 million.

Moreover, a stellar spectral parameter catalogue of 6.13 million stars is also released worldwide in DR6, in which the abundances of 12 elements, e.g., carbon, magnesium, calcium, and so on, are included for part of the stars for the first time.

Up to now, more than 11 million [spectra](#) have been released by LAMOST, covering a sky area of more than 20 thousand square degrees. By establishing the world's largest and invaluable astronomical database, LAMOST has brought the field of Galactic formation and evolution into a whole new era.

The National Astronomical Data Center has built a downloading platform in order to share the astronomical data. Scientific users worldwide can log on the website at [lamost.org](#) target="\_blank">dr6.[lamost.org](#) for data query and download.

The LAMOST DR6 was firstly released to domestic astronomers and

international collaborators in March of 2019. The data has been released to the international community in September of 2020.

LAMOST data have triggered various researches which have already led to a number of exciting and significant discoveries. Based on the new dataset, astronomers will continue to refresh our understanding of the universe.

Provided by Chinese Academy of Sciences

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