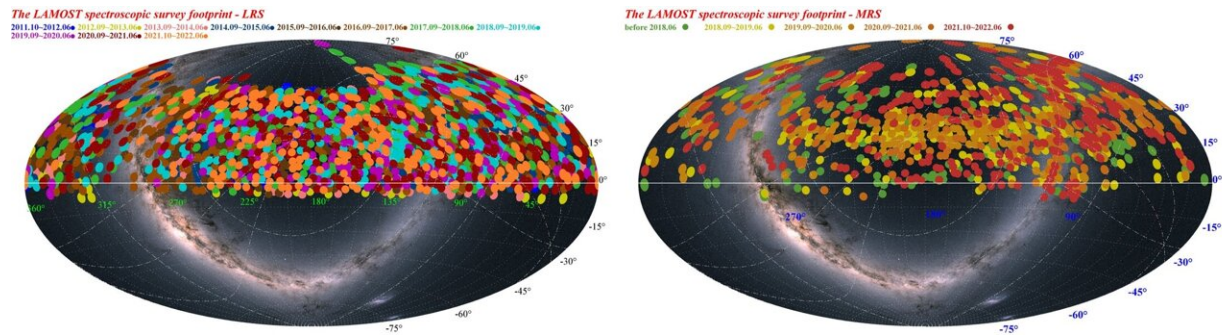


LAMOST releases its DR10 data, containing more than 20 million spectra

April 10 2023, by Li Yuan



Left: Footprint of the low-resolution survey of LAMOST DR10. Right: Footprint of the medium-resolution survey of LAMOST DR10. Credit: LAMOST

The LAMOST DR10 (v1.0 version) dataset was officially released to domestic astronomers and international partners on March 31, 2023. This dataset contains more than 22.29 million spectra, which is 2.9 times the sum of the spectra released by all other survey projects in the world. LAMOST has become the first survey project with released spectra exceeding 20 million.

The DR10 dataset is a collection of the [spectra](#) obtained by LAMOST from October 2011 to June 2022. The released 22.29 million spectra include 11.81 million low-resolution spectra from the observation of

5,923 plates and 10.48 million medium-resolution spectra from the observation of 1,951 plates. Both medium- and low-resolution spectra exceed 10 million.

Moreover, a catalog of about 9.61 million sets of stellar spectral parameters was also released in DR10.

Item	Low-resolution Spectra	Medium-resolution Non-time-domain Spectra	Medium-resolution Time-domain Spectra	DR10 in Total
Total Number Released	11.81 million	2.21 million	8.27 million	22.29 million
Star Number with Stellar Parameters	7.47 million	1.10 million	1.04 million	9.61 million

Information of LAMOST DR10 dataset in detail. Credit: Table by LAMOST

The innovative design of LAMOST makes it actualize the combination of large aperture and wide field of view. The 4,000 [fibers](#) and the robotic parallel controllable fiber positioning system have guaranteed its high spectral acquisition rate. LAMOST has kept the records of the most spectra released and the largest stellar spectral parameter [catalog](#) released in the world for ten consecutive years.

In 2019, LAMOST became the first sky survey project in the world to release over 10 million spectra. In the last four years, the number of spectra released has doubled. LAMOST has brought the field of Galactic formation and evolution into a whole new era.

This [database](http://www.lamost.org/dr10) can be accessed at <http://www.lamost.org/dr10>.

Provided by Chinese Academy of Sciences

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