# 国台学术报告 NAOC COLLOQUIUM

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**Time: Wednesday 2:30 PM, May.23th   Location: A601, NAOC**

# Embracing A New Era With Gaia-LAMOST Data---Breakthroughs Are Coming

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Prof. Chao Liu a staff member of the National Astronomical Observatories, CAS, since end of 2011. He obtained his PhD degree in 2008 at NAOC. Then he went to Germany and worked at Max-Planck Institute for Astronomy as a postdoc. He has been working for Gaia project for more than 3 years. After he joined NAOC, he has been engaging in the stellar and Galactic studies with LAMOST survey data.

# Abstract

In this talk, I will firstly give a brief overview of the Gaia mission and the data release 2 (DR2) dataset published recently. With 5-dimensional astrometric parameters for 1.3 billion stars and additional radial velocities for about 7 million bright stars, Gaia provides the most accurate three dimensional star map that the human being has ever made. This may not be a big news like the detection of the gravitational wave, but the impact of the fantastic new dataset is no doubt equivalently remarkable and profound in almost all fields of astronomy and astrophysics. And this impact will sustain for a decade or two in the future.  Not long after the DR2 data came out, there are already a lots of works showing up and demonstrating surprising results, some of which may be the ultimate strike, on different topics. I will outline some of these works and try to find clues about what scientific questions that Gaia can mostly help. I also associate LAMOST survey with Gaia and show that the combination of these two surveys may leverage many interesting, some are fundamental questions, on stellar astrophysics as well as the Milky Way science.
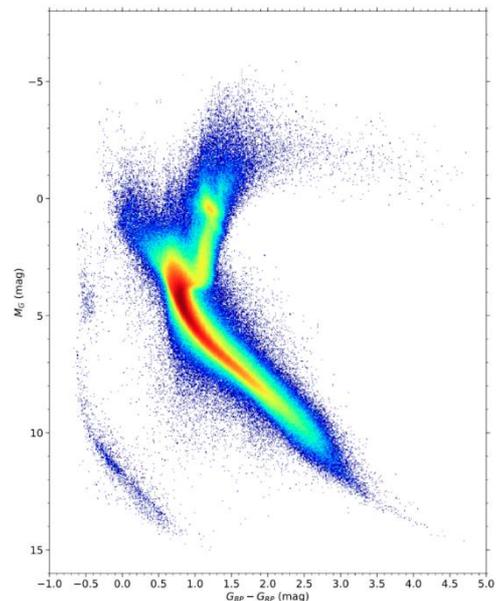
*All are welcome ❗Tea and coffee will be served at 2:15 PM.*