JOHN J VICKERS

WEBSITES
johnjvickers.github.io (personal)
poptcorn.github.io (film data blog)

CURRENT WORK
Shanghai Astronomical Observatory
80 Nandan Lu, Xuhui, Shanghai
johnjvickers@shao.ac.cn
18516628770

EDUCATION

Doktor Rerum Naturalium (PhD) at Universität Heidelberg
Area: Astronomy; Specialization: Galactic Astronomy — Grade: 1.5 / 1.0 (Magna Cum Laude)

Bachelor of Science (BSc) at Rensselaer Polytechnic Institute
Area: Physics; Specialization: Astrophysics — Grade: 3.78 / 4.0 (Magna Cum Laude)

EXPERIENCE

Chinese Academy of Sciences — Spring 2015 - Present
Post-doctoral research position focusing on model fitting and trend analysis for Milky Way dynamics data from the Gaia and LAMOST surveys. Worked with statistical techniques such as bayesian analysis, monte carlo methods, regressors, classifiers and some manifold analysis.

Universität Heidelberg — Summer 2011 - Winter 2014
PhD studies which focused on feature identification, sample and outlier selection, and model fitting of Milky Way data from the Pan-STARRS, SDSS, and Gaia surveys. Worked extensively with Python and related libraries, LaTeX, and SQL.

Rensselaer Polytechnic Institute — Autumn 2007 - Spring 2011
Undergraduate research projects including: geophysics high pressure experiment machining, geophysics diffusion simulations in Python, astronomy data analysis in TCL, C++, and Python, astronomy public outreach for the Milkyway@Home BOINC project.

SKILLS

Python (NumPy, SciPy, scikit-learn, matplotlib)
OS (Debian, Fedora, Arch, OSX)
Other Computer Skills (bash, SQL, LaTeX, git)
Analysis (monte carlo, regression, classification, manifold analysis, maximum likelihood fitting)

HONORS AND AWARDS

President's International Fellowship Initiative Research Fellowship · National Science Foundation of China Research Funding · LAMOST Research Fellowship · Marie Curie Research Fellowship · International Max Planck Research Student Fellowship · Rensselaer Medalist

PUBLICATIONS

The Lives of Stars: Insights from the TGAS−RAVE−LAMOST Data Set[1]
John J. Vickers & Martin C. Smith (ApJ, Volume 860, Issue 2, article id. 91, 16 pp. 2018)

A Global Correction to PPMXL Proper Motions
John J. Vickers, Siegfried Röser, Eva K. Grebel (AJ, Volume 151, Issue 4, article id. 99, 9 pp. 2016.)

LAMOST 1: A Disrupted Satellite in the Constellation Draco[2]
John J. Vickers, Martin C. Smith, Yonghui Hou, Yufei Wang, Yong Zhang (ApJL Volume 816, Issue 1, article id. L2, 5 pp. 2016)

Red Runaways: Hypervelocity Stars, Hills Ejecta and Other Outliers in the F-to-M Star Regime
John J. Vickers, Martin C. Smith, Eva K. Grebel (AJ Volume 150, Issue 3, article id. 77, 16 pp. 2015)

A Stellar Population Synthesis Model for the Study of Ultraviolet Star Counts of the Galaxy
Ananta C. Pradhan, D. K. Ojha, A. C. Robin, S. K. Ghosh, **John J. Vickers** (A&A, Volume 565, id.A33, 13 pp. 2014)

Identifying Blue Horizontal Branch Stars Using the z Filter
John J. Vickers, Eva K. Grebel, Avon P. Huxor, (AJ Volume 143, Issue 4, article id. 86, 9 pp. 2012)

CONFERENCE PRESENTATIONS

European Week of Astronomy and Space Science	2016, Athens, Greece 2017 Prague, Czech Republic
The Milky Way Unraveled By Gaia	December 2014, Barcelona, Spain
Pan-STARRS Astrometry	September 2013, Heidelberg, Germany
Pan-STARRS Science Consortium	January 2011, Honolulu, Hawaii August 2012, Durham, UK
LAMOST Workgroup Meetings	June 2009, Beijing, China April 2016, Beijing, China

[1] full texts are available on my website: johnjvickers.github.io/pages/publications.html

[2] Subsequently featured at http://phys.org/news/2015-12-disrupted-globular-cluster-constellation-draco.html as well as http://aasnova.org/2016/03/04/how-to-spot-a-disrupted-galactic-satellite/