

Iulia-Teodora Simion - CV

Affiliation: Shanghai Normal University, Shanghai Key Lab for Astrophysics
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RESEARCH interests

- Galactic Archaeology;
- Large scale surveys (BDBS, Gaia, APOGEE, VVV, SDSS, Catalina Schmidt Survey);
- Galactic bulge; Stellar halo; Stellar populations; RR Lyrae; Red Clump stars

EMPLOYMENT

Aug 2021 - present	Associate Professor , Shanghai Normal University, China
May 2016 - Aug 2021	Postdoctoral Fellow , Shanghai Astronomical Observatory, CAS, China

EDUCATION

Jan 2012 - Jan 2016	PhD in Astronomy , Institute of Astronomy, University of Cambridge, UK Thesis: “Archeology of the Milky Way: concerning a Bar, a Bulge and a Cloud” Advisors: Dr. Vasily Belokurov and Dr. Mike Irwin
Sep 2010 - Jul 2011	M.Sc. (part II) in Astronomy & Astrophysics, Observatoire de Paris, France
Sep 2009 - Jul 2010	M.Sc. (part I) in Theoretical Physics, Universite de Paris 11, France
Sep 2006 - Jul 2009	B.Sc. Summa cum laude in Physics, University of Turin, Italy

GRANTS

Jan 2019 - Jan 2021	The CAS President’s International Fellowship Initiative, PIFI
Jan 2012 - Jan 2016	Marie Curie Early Stage Researcher (PhD) Gaia Research for European Astronomy Training (GREAT-ITN) network Working package: “Unravelling the Milky Way;”
Mar 2011 - Jun 2011	European Science Foundation (ESF) exchange grant Institute of Astronomy, University of Cambridge, UK
May 2010 - Aug 2010	USA Research Experience for Undergraduates Project: “Study of Jet Formation in Accretion Disks” with Dr. Ilia Roussev Institute for Astronomy, University of Hawai’i in Manoa, USA
May 2008 - Aug 2009	ERASMUS European Union exchange grant University of Bristol, UK

OBSERVING & SURVEYS

04/2018 - present	CoI Blanco DECcam Bulge Survey (BDBS) survey
07/2018 - present	PI: <i>‘Investigating the nature of the Hercules-Aquila Cloud with RR Lyrae’</i> observed 3 nights on 5.1m Hale, Palomar & 15 nights on 3.1m Shane, Lick, USA
28/08/14 - 03/09/14	CoI: <i>‘Probing the Milky Way Dark Matter Halo with RR Lyrae’</i> observed 7 nights on 2.4m Hiltner telescope, MDM, Kitt Peak, USA
28/02/14 - 01/03/14	multi-band (<i>gri</i>) imaging observing run with ACAM observed 2 nights on the 4.2m William Herschel Telescope, La Palma, Spain
24/02/15 - 26/02/15	CoI <i>‘Galactic Dark Matter properties with the Orphan stream’</i> obtained 2 nights on 4m Blanco Telescope DECam

ADVISING & TUTORING

Oct 2018 - present	co-mentor PhD student, Zhou YingYing, SHAO, China
Sep 2020 - present	co-mentor Master’s student, Xiao Jie, SHAO, China
Oct 2012 - June 2014	Tutoring of 3rd year undergraduate students (12), IoA, Cambridge, UK
Oct 2007 - June 2008	Tutoring of undergraduate students, ‘Analysis I’, Univ. of Turin, Italy

OUTREACH

2019, 2021	Shanghai Middle & High School Science Challenge - judge ‘Science, Technology and Art Educational Centre’, Shanghai
11/2017	Astronomy Open Day - Radio interview and exhibition stand ‘Natural History Museum’, Shanghai
7-11/8/2017	“Astronomy for STEM education” - outreach training International Training Centre in Astronomy under the auspices of UNESCO, Bangkok
2012-2016	Outreach events at the IoA and Kavli Cambridge Science Festival and Institute open days, Cambridge, UK
25/3/2014	Gaia live @ Parkside Community College, Cambridge Featured in the Cambridge University press

TALKS (selected)

01/2020	“Kinematics of the Milky Way Bulge with Gaia and ARGOS” 235th Meeting of the AAS, Honolulu, talk + iPoster
10/2019	“The tilt of the Bulge velocity ellipsoids” Lamost, Gaia and other leading surveys, Yichang, China
12/2018	“Orbital properties of the Bulge giants with Gaia DR2” The Galactic Bulge at the crossroads, Pucon, Chile
11/2018	“Evidence of an ancient collision between the Milky Way and a massive galaxy with Gaia DR2” The life and times of the Milky Way, Shanghai, China
07/2017	“Parametric and non-parametric studies of the Galactic Bulge/Bar using the VVV survey” APRIM, Taipei, Taiwan
07/2015	“Building a map of the Inner Galaxy using a 130 Million Sources Survey” Kavli Institute for Cosmology, Cambridge, UK
07/2014	“New evidence for an ancient merger event in the Milky Way” EWASS, Geneva, Switzerland

Julia T. Simion - LIST OF PUBLICATIONS

- Simion, Iulia T.; Shen, Juntai; Koposov, Sergey; Ness, Melissa; Freeman, Kenneth; Bland-Hawthorn, Jonathan; Lewis, Geraint F. (2021): *Mapping the tilt of the Milky Way bulge velocity ellipsoids with ARGOS and Gaia DR2*, MNRAS, Vol. 502, Issue 2, p. 1740 - 1752
- Zhou, Yingying; Li, Zhao-Yu; Simion, Iulia T.; Shen, Juntai; Mao, Shude; Liu, Chao; Jian, Mingjie; Fernandez-Trincado, Jose G. (2021): *Understanding the velocity distribution of the Galactic Bulge with APOGEE and Gaia*, ApJ, Vol. 908, Issue 1, 17p
- Lim, D.; Koch-Hansen, A. J.; Chung, C.; Johnson, C. I.; Kunder, A.; Simion, I. T.; Rich, R. M.; Clarkson, W. I.; Pilachowski, C. A.; Michael, S.; Vivas, A. K.; Young, M. D. (2021): *Blanco DECam Bulge Survey (BDBS). III. A new view of the double red clump in the Milky Way bulge through luminosity and color distribution*, A&A, Vol. 647, id.A34, 14 pp.
- Kader, J.; Pilachowski, C.; Johnson, C. I.; Rich, M.; Young, M.; Simion, I. T.; Clarkson, W. I. et al. (2021, submitted): *Multiple Stellar Populations in Globular Clusters of the Galactic Bulge*
- Erkal, Denis; Deason, Alis J.; Belokurov, Vasily; Xue, Xiang-Xiang; Koposov, Sergey E.; Bird, Sarah A.; Liu, Chao; Simion, Iulia T.; Yang, Chengqun; Zhang, Lan; Zhao, Gang (2020): *Detection of the LMC-induced sloshing of the Galactic halo*, <https://arxiv.org/pdf/2010.13789.pdf>
- Simion, Iulia T., Shen, Juntai (2020), *Kinematics of the Milky Way Bulge with Gaia and ARGOS*, AAS proceedings Vol. 52, p. 316
- Rich, M.; Johnson, C.; Young, M.; Simion, Iulia T.; Clarkson, William I.; Pilachowski, Catherine; Michael, Scott; Kunder, Andrea; Katherina Vivas, A.; Koch, Andreas; Marchetti, Tommaso; Ibata, Rodrigo et al. (2020): *The Blanco DECam bulge survey. I. The survey description and early results*, MNRAS, Vol. 499, p. 2340-2356
- Johnson, C.; Rich, M.; Young, M.; Simion, Iulia T.; Clarkson, W.; Pilachowski, C.; Michael, Scott; Kunder, Andrea; Koch, Andreas; Vivas, Anna Katherina (2020): *Blanco DECam Bulge Survey (BDBS) II: project performance, data analysis, and early science results*, MNRAS, Vol. 499, p. 2357-2379
- Chang, J.; Yuan Z.; Xue, X. X.; Simion, Iulia T.; Kang, Xi; Li, Ting S.; Zhao, Jing-Kun; Zhao, Gang (2020): *Is NGC 5824 the core of the progenitor of Cetus Stream?*, ApJ, Vol. 905, Issue 2, id.100, 11 pp.
- Simion, Iulia T.; Belokurov, Vasily; Koposov, Sergey E. (2019), *Common origin for Hercules-Aquila and Virgo Clouds in Gaia DR2*, MNRAS, Vol. 482, p. 921-928
- Simion, Iulia T.; Belokurov, Vasily; Koposov, Sergey E.; Sheffield, Allyson; Johnston, Kathryn V. (2018): *Spectroscopic Follow-Up of the Hercules Aquila Cloud*, MNRAS, Vol. 476, p. 3913-3923
- Simion, Iulia T., Fernandez-Trincado, J. G. (2018): *Orbital properties of the Bulge giants with Gaia DR2*, proceedings, The Galactic Bulge at the Crossroads, 10.5281/zenodo.2595406
- Simion, Iulia T.; Belokurov, Vasily; Koposov, Sergey E.; Irwin, Mike; Gonzalez-Fernandez, Carlos et al. (2017): *A parametric description of the 3D structure of the Galactic Bar/Bulge using the VVV survey*, MNRAS, Vol. 471, p. 4323-4344
- Simion, Iulia T.; Belokurov, Vasily (2014): *Large Scale Structure in the Inner Milky Way*, EAS publications series, Volume 67-68, p. 1777-181
- Simion, Iulia T.; Belokurov, Vasily; Irwin, Mike; Koposov, Sergey E. (2014) : *Strong RR Lyrae excess in the Hercules-Aquila Cloud*, MNRAS, Vol. 440, Issue 1, p.161-171