

Chengyuan Li

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CURRENT APPOINTMENT

Macquarie Research Fellow,
Department of Physics and Astronomy,
Macquarie University (MQU), Sydney, Australia

Feb. 2016 – Present

APPINMENT HISTORY

Project Research Fellow (Level 4 Professor),
Purple Mountain Observatory,
Chinese Academy of Sciences (CAS), Nanjing, China

Jul. 2015 – Feb. 2016

EDUCATION

Doctor of Philosophy (May 27th, 2015, awarded)
Department of Astronomy, Peking University, Beijing, China
Ph.D. Thesis – **Not-so-simple stellar populations in massive star clusters**
Supervisors: Prof. Richard de Grijs & Prof. Licai Deng

December 2010 – July 2015

Bachelor of Science, Physics
Basic scientific training, National Natural Science Foundation of China.
Department of Physics,
Central China Normal University (CCNU), Wuhan, China

December 2006 – June 2010
September 2008 – June 2010
September 2006 – June 2008

PROFESSIONAL AFFILIATIONS

Member, Astronomical Society of Australia (ASA)

Jun. 2016 – Present

AWARDS AND SCHOLARSHIPS

Gold medal research awards, Top-25, American Journal Experts, AJE	2016
Macquarie Research Fellowship 2016 — 2019 (AUD 42730), Macquarie University, MQU	2016
Second Prize, Outstanding Academic Articles of Young Scientists of Beijing, BAST	2015
Excellent PhD Thesis of Peking University (Only 8 in School of Physics, PKU)	2015
First Prize, Zhong Shengbiao Academic Forum. (Hosted by the School of Physics, PKU)	2015
Innovation Award (Top academic award at PKU)	2014
Special National Scholarship	2014
Excellent article in 16th CAST PhD candidates annual conference	2014
Second Prize, Zhong Shengbiao Academic Forum. (Hosted by the School of Physics, PKU)	2014
National Scholarship. (Chinese top scholarship)	2013
Innovation Award. (Top academic award at PKU)	2013
Third Prize, Zhong Shengbiao Academic Forum. (Hosted by the School of Physics, PKU)	2013
Prize for Excellent Presentation, Zhong Shengbiao Academic Forum.	2013

Departmental Scholarship for Outstanding Students.	2012
Departmental Scholarship for Outstanding Students.	2011
Third Scholarship for National Science Foundation Student.	2009
Merit Student. (School-level award at CCNU)	2008
“BoYa” Third Scholarship. (School-level scholarship at CCNU)	2008
Top Scholarship for National Science Foundation Student.	2008
Scholarship for Excellent Freshmen. (Scholarship for freshmen at CCNU)	2006

PUBLICATIONS

- “Age as a major factor in the onset of multiple populations in stellar clusters”
Martocchia, S., Lardo, C., Dalessandro, E., Bastian, N., Kozhurina-Platais, V., Usher, C., Niederhofer, F., Cordero, M., Geisler, D., Hollyhead, K., Larsen, S., [Li, C.](#), Mackey, D., Hilker, M., Mucciarelli, A., Platais, I., Salaris, M., 2017, **Monthly Notices of the Royal Astronomical Society**, in press
- “The dynamical origin of multiple populations in intermediate-age clusters in the Magellanic Clouds”
Hong J., de Grijs R., Askar A., Berczik P., [Li C.](#), Wang L., Deng L., Kouwenhoven M. B. N., Giersz M., Spurzem R., 2017, **Monthly Notices of the Royal Astronomical Society**, 472, 67
- “Discovery of Extended Main Sequence Turn-offs in Four Young Massive Clusters in the Magellanic Clouds”
[Li C.](#), de Grijs R., Deng L., Milone A. P., 2017, **The Astrophysical Journal**, 844, 119
- “The Search for Multiple Populations in Magellanic Cloud Clusters III: No evidence for multiple populations in the SMC cluster NGC 419”
Martocchia, S., Bastian, N., Usher, C., Kozhurina-Platais, V., Niederhofer, F., Cabrera-Ziri, I., Dalessandro, E., Hollyhead, K., Kacharov, N., Lardo, C., Larsen, S., Mucciarelli, A., Platais, I., Salaris, M., Cordero, M., Geisler, D., Hilker, M., [Li, C.](#), Mackey, D., 2017, **Monthly Notices of the Royal Astronomical Society**, 468, 3150
- “The Search for Multiple Populations in Magellanic Cloud Clusters II: The detection of multiple populations in three intermediate-age SMC clusters”
Niederhofer F., Bastian N., Kozhurina-Platais V., Larsen S., Hollyhead, K., Lardo C., Cabrera-Ziri, I., Kacharov, N., Platais, I., Salaris, M., Cordero, M., Dalessandro, E., Geisler, D., Hilker, M., [Li, C.](#), Mackey, D., Mucciarelli, A., 2017, **Monthly Notices of the Royal Astronomical Society**, 465, 4159
- “The Radial Distributions of the Two Main-sequence Components in the Young Massive Star Cluster NGC 1856”
[Li C.](#), de Grijs R., Deng L., Milone A. P., 2017, **The Astrophysical Journal**, 834, 156
- “The Search for Multiple Populations in Magellanic Cloud Clusters I: Two Stellar Populations in the Small Magellanic Cloud Globular Cluster NGC 121”
Niederhofer F., Bastian N., Kozhurina-Platais V., Larsen S., Salaris M., Dalessandro E., Mucciarelli A., Cabrera-Ziri I., Cordero M., Geisler D., Hilker M., Hollyhead K., Kacharov N., Lardo C., [Li C.](#), Mackey D., Platais I., 2017, **Monthly Notices of the Royal Astronomical Society**, 464, 94
- “Stellar populations in star clusters” [**Invited Review**]
[Li C.](#), de Grijs R., Deng L., 2016, **Research in Astronomy and Astrophysics**, 16, 179
- “First observational signature of rotational deceleration in a massive, intermediate-age star cluster in the Magellanic Clouds”
Wu X., [Li C.](#), de Grijs R., Deng L., 2016, **The Astrophysical Journal Letter**, 826, L14
- “The tight sub-giant branch of the intermediate-age star cluster NGC 411 implies a single-aged stellar population”
[Li C.](#), de Grijs R., Bastian N., Deng L., Niederhofer F., Zhang C., 2016, **Monthly Notices of the Royal Astronomical Society**, 461, 3212
- “A young cluster with an extended main sequence turnoff: confirmation of a prediction of the stellar rotation scenario”
Bastian N., Niederhofer F., Kozhurina-Platais V., Salaris M., Larsen S., Cabrera-Ziri I., Cordero M.,

Ekström S., Geisler D., Georgy C., Hilker M., Kacharov N., [Li C.](#), Mackey D., Mucciarelli A., Platais I., 2016, **Monthly Notices of the Royal Astronomical Society**, 460, 20

- “Formation of new stellar populations from gas accreted by massive young star clusters”
[Li C.](#), de Grijs R., Deng L., Geller, A. M., Xin, Y., Hu, Y., Faucher-Giguère C., 2016, **Nature**, 529, 502
- “Blue straggler stars and other complications in star clusters”
Deng L., Xin Y., [Li C.](#), de Grijs R., 2016, **Memorie della Societa Astronomica Italiana**, 87, 489
- “Controversial age spreads from the main sequence turn-off and red clump in intermediate-age clusters in the LMC”
Niederhofer, F., Bastian, N., Kozurina-Platais, V., Hilker, M., de Mink, S. E., Dotter, A., [Li, C.](#), Ercolano, B., 2015, **Astronomy and Astrophysics**, 586, 148
- “The VMC Survey. XVIII. Radial dependence of the low-mass, $0.55\text{--}0.82\ M_{\odot}$ stellar mass function in the Galactic globular cluster 47 Tucanae”
Zhang, C., [Li, C.](#), de Grijs, R., Bekki, K., Deng, L., Zaggia, S., Rubele, S., Piatti, A. E., Cioni, M. L., Emerson, J., For, B., Ripepi, V., Marconi, M., Ivanov, V. D., Chen, L., 2015, **The Astrophysical Journal**, 815, 95
- “Different dynamical ages for the two young and coeval LMC star clusters NGC 1805 and NGC 1818”
Geller A., de Grijs R., [Li C.](#), Hurley J. R., 2015, **The Astrophysical Journal**, 805, 11
- “Star cluster disruption in the starburst galaxy Messier 82”
Li S., de Grijs R., Anders P., [Li C.](#), 2015, **The Astrophysical Journal Supplement**, 216, 6
- “The exclusion of a significant range of ages in a massive star cluster”
[Li C.](#), de Grijs R., Deng L. 2014, **Nature**, 516, 367
- “The VMC Survey. XII. Radial Stellar Population Gradients in the Galactic Globular Cluster 47 Tucanae”
[Li C.](#), de Grijs R., Deng L., Wang C., Rubele S., Bekki K., Cioni M.-R. L., Girardi L., Groenewegen M. A. T., Gullieuszik M., et al. 2014, **The Astrophysical Journal**, 790, 35
- “Not-So-Simple Stellar Populations in the Intermediate-Age Large Magellanic Cloud Star Clusters NGC 1831 and NGC 1868”
[Li C.](#), de Grijs R., Deng L. 2014, **The Astrophysical Journal**, 784, 157
- “Consequences of Dynamical Disruption and Mass Segregation for the Binary Frequencies of Star Clusters”
Geller A., de Grijs R., [Li C.](#), Hurley J. R., 2013, **The Astrophysical Journal**, 779, 30
- “The binary fractions in the massive young Large Magellanic Cloud star clusters NGC 1805 and NGC 1818”
[Li C.](#), de Grijs R., Deng L. 2013, **Monthly Notices of the Royal Astronomical Society**, 436, 1497
- “Blue Straggler Evolution Caught in the Act in the Large Magellanic Cloud Globular Cluster Hodge 11”
[Li C.](#), de Grijs R., Deng L., Liu X. K. 2013, **The Astrophysical Journal Letters**, 770, L7
- “Gravitational Conundrum? Dynamical Mass Segregation versus Disruption of Binary Stars in Dense Stellar Systems”
de Grijs R., [Li C.](#), Zheng Y., Deng L., Hu Y., Kouwenhoven M. B. N., Wicker J. E. 2013, **The As-**

trophysical Journal, 765, 4

- “Rapid dynamical processes in the cores of young star clusters in the Large Magellanic Cloud”
de Grijs R., [Li C.](#), Deng L. 2014, American Astronomical Society, AAS Meeting 223, Abstract 442.25
- “Consequences of Dynamical Disruption and Mass Segregation for the Binary Frequencies of Star Clusters”
Geller A., de Grijs R., [Li C.](#), Hurley J. R. 2014, American Astronomical Society, AAS Meeting 223, Abstract 442.26
- “Dynamical Mass Segregation Versus Disruption of Binary Stars in Dense Stellar Systems”
de Grijs R., [Li C.](#), Deng L. 2013, American Astronomical Society, AAS Meeting 221, Abstract 250.14

RELEVANT EXPERIENCE

2017 – present

- Visit to the Department of Physics and Astronomy, Canterbury University, Christchurch, New Zealand, May 2017
- Contributed talk at the seminar in the Department of Physics and Astronomy, Canterbury University, Christchurch, New Zealand, May 2017
- Macquarie University Astro-seminar organiser, 2017
- Contributed talk at the conference of European Week of Astronomy and Space Science, Prague, Czech Republic, June 2017
- Contributed talk at the Annual Scientific Meeting of Astronomical Society of Australia, Canberra, Australia, July 2017
- Adjunct supervisor of Mr.Arvind Hughes (Macquarie University)
MRs thesis title: **Needle in a Haystack: Finding Interesting Objects in the GALAH Survey with Advanced Statistical Techniques**
- Acting supervisor of Mr.Xingzhong Fan (West China Normal University) for a summer project, August 2017
- Contributed talk at the colloquium in Australian Astronomical Observatory (AAO); September 2017

2016 – 2017

- Invited talk at the “Physics TED” forum at the school of physics [**not academic**], Peking University, Beijing, China; October 2016
- Invited talk at the Department of Astronomy, China West Normal University, Nanchong, China; October 2016
- Invited talk to the first session graduates of the Department of Astronomy [**not academic**], China West Normal University, Nanchong, China; October 2016
- Contributed talk at the seminar in Department of Astronomy, Peking University, Beijing, China; October 2016
- Contributed talk at the seminar in National Astronomical Observatory of Chinese Academy of Sciences, Beijing, China; September 2016
- Contributed talk at the conference “Multiple Populations in Globular Clusters: Where do we stand?”, Seston, Italy; July 2016
- Chair for ASA annual scientific meeting Session 19 (Stellar Astrophysics); July 2016
- Contributed talk at the Astronomical Society of Australia (ASA), Annual Scientific Meeting; July 2016
- Contributed talk at the colloquium in Australian Astronomical Observatory (AAO); June 2016
- Contributed talk at the colloquium in CSIRO Astronomy and Space Science; June 2016
- Visit to Research School of Astronomy and Astrophysics, Australian National University; June 2016
- Volunteer of Astronomy Open Night, Macquarie University; May 2016
- Contributed talk at the colloquium in Department of Physics and Astronomy, Macquarie University; May 2016
- Reviewer for *Astrophysics and Space Science*; January 2016
- Participate in the Australia-China Consortium for Astrophysical Research, Perth, Australia; April 2016

2015 – 2016

- Contributed talk at the Shang Hai Astronomical Observatory, star cluster workshop, Shanghai, China; November 2015
- Contributed talk at the Chinese Astronomical Society annual conference, Beijing, China; October 2015.
- Visit to Kavli Institute for Astronomy and Astrophysics (KIAA), Peking University, Beijing, China; October 2015.
- Visit to YunNan Astronomical Observatory, Kunming, China; September 2015.
- Contributed talk at the mini-SONG workshop, Delingha, China; August 2015.
- Visit to ShanHai Astronomical Observatory (SHAO), Shanghai, China; August 2015.
- Visit to University of Science and Technology of China, Hefei, China; May 2015.

- Contributed talk at the KIAA-SHAO workshop, Beijing, China; May 2015.
- Visit to Purple Mountain Observatory, Chinese Academy of Science, Nanjing, China; June 2015.
- Acting supervisor of Ms.Xiaohan Wu (Peking University), 2015–2016

2014 – 2015

- Contributed talk at the conference on “Binary systems, their evolution and environments”, Ulaanbaatar, Mongolia; September 2014.
- Volunteer at the Chinese Science Festival, translator English–Chinese; July–August 2014
- Visit to Leiden Observatory, Netherlands; supervised by Prof. Simon F. Portegies Zwart; June 2014
- Contributed talk at the 16th CAST PhD candidates’ annual conference; May 2014
- Our published article, “The binary fractions in the massive young Large Magellanic Cloud star clusters NGC 1805 and NGC 1818” was selected for entry into the China Association for Science and Technology (CAST) 16th PhD candidates’ annual conference.
- Acting supervisor of Ms.Chuchu Wang (Peking University), 2014–2015

2013 – 2014

- Observational assistance, Xinglong 2.16 m telescope, Heibei, China
- Co-supervision of the Bachelor thesis of WANG Chuchu (Peking University, China)
- Reviewer for *The Astrophysical Journal*
- Chair and co-organizer of weekly graduate student lunch seminars, Peking University
- Visiting scholar at the Center of Astrophysics, DaLi University, Yunnan, China

2012 – 2013

- Registered Member of the Chinese PhD Students’ Academic Forum, Beijing, China
- Registered Participant of the International Astronomical Union’s XXVIII General Assembly, Beijing, China
- Chair and co-organizer of weekly graduate student lunch seminars

2011 – 2012

- Participant in the Annual Conference of the Chinese Astronomical Society, Nanchang, China
- Teaching Assistant for the lecture course on “Structure and Dynamics of Galaxies”, Prof. P. C. van der Kruit (University of Groningen, Netherlands), Chinese Academy of Sciences
- Registered Participant in the 2011 Gravitational Lensing Summer School and Seminar, Beijing, China

COMPUTER SKILLS

Experienced in

- IRAF (proficient)
- DOLPHOT (photometry package, proficient)
- MATLAB (proficient)
- Python (operational)
- AMUSE, based on Python environment (beginner)
- Fortran (operational)

LANGUAGE

- Chinese (mother tongue)
- English (fluent)
 - College English Test 4 (CET-4)
 - College English Test 6 (CET-6)

- International English Language Test System (IELTS): 6.5/9.0
(Speaking:6.0; Listening:6.0; Reading:8.0; Writing:6.5)

INTERESTS

Badminton, skating, swimming, running, light music, psychology.