March

Curriculum Vitae Prof. Quentin Andrew Parker

From Research Excellence to Senior Academic & Technical Management, Leadership, Teaching & Knowledge Exchange



Front cover page from LSR Annual report 2024

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WHO I AM



If I were to summarize myself in terms of who I am and how I operate as a senior academic and Space leader, manager and "astropreneur", via a series of soundbites, it would be this:

- Enthusiastic, good humoured, motivated, focused and passionate; seizing opportunity decisively with a strongly strategic, policy and management focus
- Rigorously across detail and forensic attention to detail with both big picture and marginal gains approach leading to high-level organizational success
- Collegiate, pastoral, motivating, inclusive; willing to help others with strong support for diversity and empathy from a senior management perspective
- Robust and professional; convincing and persuasive but able to make tough but informed decisions, especially in change management situations
- Ability to build, organise and deliver capacity across multiple endeavours
- Demonstrated excellence in research, policy and institutional leadership
- Strongly collaborative with a developed interdisciplinary perspective
- Curious, strategic, agile, reflective and action oriented but with an open minded approach with willingness to support novel and visionary ideas
- Base positive character of honesty, integrity, generosity and humility
- Comfortable and respectful in all environments and at every level from chatting with the cleaner to chairing executive meetings and hosting major international delegations and meeting CEOs, VCs and government members
- Highly articulate in written/spoken English, fluent in French, moderate in Spanish, some basic German, Italian and Mandarin with a multi-cultural, highly respectful outlook
- Extremely international in perspective and experience and strongly evidence based in approach and implementation with a robust entrepreneurial edge

Selected evidence of all the above is given below and in the supplementary material but can be expanded on as needed during any interview. This CV, together with senior research leadership experience and achievements and connections to the Global Tertiary Education, research institute and Space and NewsSpace Ecosystems, clearly demonstrates my credentials, aptitude and capacity for high-level technical, board and advisory roles in relevant areas and disciplines and especially for Space. A simple Google Search on "Quentin Parker Space" and clicking in "images" is instructive of my on-line presence and impact.

Current Positions

Director, Laboratory for Space Research (LSR): <u>www.lsr.hku.hk</u> CEO and Founder Feilong Aerospace & Technology Ltd : <u>https://feilong-aerospace.com/</u> Vice Chairman Orion Astropreneur Space Academy: <u>https://www.oasahk.org/</u>

Academic Qualifications

BSc (Honours), 1982; PhD 1986, St. Andrews University, UK

Employment history & Current employment

Director, Lab for Space Research	The University of Hong Kong	2018 -			
Professor/Assoc. Dean (global)	The University of Hong Kong	2017-2020			
Professor/HoD Physics	The University of Hong Kong	2015-2016			
Professor/Director MQAASAstro#	Macquarie University/AAO	2010-2015			
Associate Professor	Macquarie University/AAO	2007-2009			
Lecturer/Senior Lecturer	Macquarie University/AAO	2002-2003; 2004-2006			
Astronomer/Senior Astronomer	Anglo-Australian Observatory	1992-1995; 1996-1999*			
Higher/Senior Scientific Officer	Royal Observatory Edinburgh	1986-1992; 1996-2002			
* (on special leave from the Royal Observatory Edinburgh in a parallel appointment)					

MQAAAstro: The Macquarie Research Centre in Astronomy, Astrophysics and Astrophotonics. Sydney, NSW

Main areas of interdisciplinary research and expertise

Space Science and policy, astronomical instrumentation narrow-band filters, fibre-based spectroscopy systems and integral field units, wide-field, multi-wavelength astronomical surveys including from satellites, late stage stellar evolution, Galactic archaeology, science education, pedagogical innovation (high school and tertiary), Chinese bronze antiquities and liberal arts interdisciplinary studies. I am also a regular opinion piece writer on space and science matters for newspapers, magazines, radio shows and TV news (BBC, Sky, CNA, CNC).

Eight-year grants record: ~\$105.81M HKD (\$20.5M AUD) in instrumentation, astrophysics research, science education and capacity building (\$82.54M at HKU)

RGMS (HK) round 4&5:	2020-2022	CI Parker, Su \$51.4M HKD
RGMS (HK) rounds 1&2:	2020-2022	CI Parker, Su \$28.5M HKD
BRC (HKU):	2018-2020	CIs Parker, Su, \$10M HKD
UGC T&L (HK):	2017-2020	CIs Parker, Knothe, Lee, \$3.314M HKD
RGC (HK) 17609318:	2019-2020	CIs Zhou, Parker \$529K HKD
RGC (HK) 17304018:	2018-2021	CIs Parker, Zijlstra, Gesicki, \$520K HKD
RGC (HK) 17300417:	2017-2020	CIs Parker, Zijlstra, Frew \$520K HKD
RGC (HK) 17326116:	2016-2018	CIs Parker, Frew, Bojicic \$540K HKD
PDF award (HKU):	2016-2020	CIs Parker, Kwok and Wu \$1M HKD
PDF award (HKU):	2017-2021	CIs Lee, Parker, Knothe \$1M HKD
HKU Travel/seed funding:	2015-2020	CI Parker \$575K HKD
ARC LEI40100052:	2014	CIs Colless, + Parker et al. \$350K HKD
OLT Teaching grant:	2013-2016	CIs Mulligan, Parker, Hedberg, Cody \$15M HKD
MQAAAstro centre:	2011-2015	CI Parker, \$1.85M HKD
Guttenberg Chair:	2013	CI Parker, \$650K HKD (Strasbourg, France)
ARC LE130100198:	2013	CIs B-Hawthorn, Croom, Parker+ \$2M HKD
ARC DP120103751:	2012-2014	CIs Ireland, Parker, Bedding \$2.13M HKD
ARC DP120104416:	2012-2013	CIs Freeman, Parker, B-Hawthorn \$1.7M HKD
ARC LE120100023:	2012	CIs Bessell, Dopita, Parker et al \$1.1M HKD

Five-year Research Publication Track Record

In the last 15 years I have 186 refereed articles and am 1^{st,} to 3rd author for 59 of these (NASA ADS abstract service <u>http://adsabs.harvard.edu/abstract_service.html</u>). My total publications comprise 598 papers, articles and newsletters with 295 in referred journals and >23500 citations with a 'h' index of 71 as shown graphically below (Dec. 2024). Full bibliography can be provided separately.



Prof. Parker publication metrics to December 2024 – citations, papers & common publication indices

Senior Management and Supervisory Experience

I was part of the HKU FoS senior management team for 3 years until 2020 and have recently negotiated important MoUs with Nanjing, Peking, Zhejiang and Padova Universities and with the Shanghai Academy of Spaceflight Technology (SAST), the Beijing Institute for Space Mechanics and Electricity (BISME), The National Astronomical Observatories of China (NAOC), the Chinese Space Utilization Group (CSU) and the National History Museum in London and others. These are delivering resources, capacity and important, strategic links. The LSR under my leadership is also engaging in novel satellite programs including the NJU-HKU "Lobster Eye" X-ray satellite telescope that was launched on July 25th 2020 (see: https://www.hku.hk/press/news detail 21360.html) and a new "6U" MeV CubeSat for Gamma ray astronomy with our PolyU partners and a novel, wide-field camera for astronomy on the Chang'E 7 lunar lander planned for November 2027 in equal partnership with the International Lunar Observatory Association (ILOA) based in Hawaii, USA.

As director of the LSR I have been responsible for significant growth and many related achievements in KE such as the BEST high-school CubeSat program (see: https://cubesat.hku.hk/) and perhaps the largest and most robust summer internship program within the FoS (see: https://www.lsr.hku.hk/teaching-and-learning/the-lsrsummer-internship-program/. I have considerable experience with hosting and managing senior delegations from elite universities, institutes, laboratories, local and provincial governments and consulates, including the US and French consulates in HK SAR. In the past I participated as senior Faculty of Science management in important HKU delegations to Europe, North America, Australasia and Mainland China. As a past 6-year member of the HKU senate I actively participated in the top-level HKU decision making body.

I am currently supervising 3 Post Doctoral Fellow, 2 RPG students and 5 RAs. Since 2005, as primary supervisor I have had 17 PhD, 3 Masters and 6 honours student completions (100% graduation success) with many more as adjunct/associate supervisor. I am currently directing and managing the Laboratory for Space Research (LSR) where we are undergoing expansion (we currently have 70+ members grown from 16 in 2017, see: www.lsr.hku.hk).

Teaching Metrics: Evidence of sustained contributions to student learning over time

Awarded several university and national teaching awards at undergraduate and postgraduate level at Macquarie University. This was due to consistently high scores from Teaching Evaluation and Development Scheme (TEDS) over the last 15 years. This continues at HKU where my scores have been consistently high across all taught subjects, e.g. in 2023 this was 82/100 for CCST9012 and 85.3 for CCST9026. These results show high-level, consistent teaching achievement as seen by the students. Recent feedback students includes: "What a wonderful, engaging, interesting and inspiring teacher"; "very captivating teaching - can get the attention of the students very quickly"; "Really captivating and interesting lectures; "He is simply excellent", my HKU SCNC1113, CCST9026 students (2017-2019).

Fellow of learned academies or societies

- Member of the Chinese Society of Astronautics as 1st foreign member (2025)
- Member of the Oriental Ceramics Society of Hong Kong (2015)
- Member of the International Astronomical Union (1995)
- Fellow of the Astronomical Society of Australia (1994 –)
- Fellow of the Royal Astronomical Society (1988)

Invited keynote/plenary/review speaker at international conferences and workshops Since 2016 attended 20 major conferences with 17 as invited reviewer/keynote speaker

- SOC/LOC Chair, Space Sustainability Conference, HKU, Dec 2024: <u>https://ssconf.space/</u>
- Invited Keynote speaker, IPSPACE forum, NewSpace, Haiko, Hainan, December 2024
- Invited Keynote speaker, AOPC2024 conference, Satellite mission, Beijing, July 2024
- Invited Keynote speaker, HeBei University- Remote Sensing, Baoding, June 2024
- Invited speaker, ACAMAR10, Guangzhou, May 2024 (Australia-China Astronomy body)
- Invited speaker, session chair, 14th Global photonics Conf (Space). Beijing July 2023
- Invited speaker, NOAC workshop on New Telescope technologies, Beijing July 2023
- Invited keynote speaker, Chinese Astronautics annual meeting, Hefei, April 2023
- Contributing speaker, EuroWD22 conference, Tubingen, Germany, August 2022
- Invited speaker, session chair and SOC member, APN8, virtual meeting October 2021
- Invited speaker and session chair, PSHK meeting (via Zoom), Hong Kong July 2020
- Invited speaker and session chair, Workplans-II meeting, Leiden, December 2019
- Opening speaker, HKU-ZIRI LSR first workshop, Lin'An, December 2018 (SOC chair)
- Invited speaker, PHSK, Macau, Guangzhou Physics societies meeting, Macau, July 2018
- Invited honorary speaker, Lobster eye telescope meeting, Shenzen, January 2018
- Contributing speaker, "APNVII", Hong Kong, Dec 2017 (SOC & LOC chair)
- Invited speaker, "with one had waving free", Port Douglas, Australia, October 2017
- Invited speaker, KAVLI 10th Anniversary meeting, Beijing, May 2017
- Contributing speaker (as on SOC) of IAU Symposium 323, Beijing October 2016
- Invited speaker 18th and 19th PHSK meetings, Poly U. 2015, HKU 2016 (also SOC chair)
- Invited speaker WorkPlans PN meeting, Lorentz Centre, Leiden, Holland, January 2016

Peer reviewed facility access won 2000-2020 - total access costs value \$22.6M HKD

•	70+ hours	Hubble and Herschel space telescopes	\$3.0M HKD
•	10 nights 6-10m time	Magellan, Gemini, GTC, ESO VLT & SALT	\$6.2M HKD
•	16 nights 4m time	CTIO & AAT	\$2.9K HKD
•	176 nights 2m time	ANU 2.3m & SAAO 1.9m telescopes	\$9.8M HKD

Prizes, Awards & donations for research, teaching & leadership (\$7.7M HKD)

- Elected first non-Chinese member of the Chinese Society of Astronautics, Feb 2025
- Dr Lui's donation to support our participation in Chang'E 7 lunar mission 2024 \$3M
- International Gemini prize (France) for excellence in Pro-Am collaboration 2022 \$16K
- HKU Sino-British awards & International travel fellowships 2018/2020 \$75K
- Various HKU Knowledge Exchange & conference and travel grants 2015-2024: \$550K
- MQ University "Jim Piper" award for excellence in Research Leadership 2014 \$120K
- Prestigious Gutenberg Professorial Chair, Strasbourg, France 2013 \$3.2M
- MQ Vice Chancellors award for excellence in undergraduate Teaching 2012 \$360K
- Australian "ALTC" citation for excellence in undergraduate Learning 2011 \$360K
- MQ Recipient of University Innovations awards for Excellence in Research 2011 \$120K
- MQ Shortlisted for University Innovations Award in Research & Engineering 2010
- MQ Highly commended for University Innovations in Learning and Teaching 2009
- MQ Vice Chancellors award for excellence in PhD supervision 2008 \$180K
- MQ Divisional award for excellence in undergraduate teaching 2007 \$180K

Current/recent senior academic/external responsibilities

- Director, Laboratory for Space Research, HKU (2018)
- CEO & Founder Feilong Aerospace & Technology Ltd. (2022)
- Vice Chairman (external) Orion Astropreneur Space Academy (2021 –)
- Member of HKU Academic Senate & Court (2016 2022)
- Associate Dean (Global) Faculty of Science, HKU (2017 2019 inclusive 3 year term)
- International member of South African Telescopes User committee (2015)
- Editorial Board for "Galaxies" refereed journal (2018)
- Chair HKU Science faculty global development/engagement committee (2017 2021)
- Chair HKU Disciplinary Committee (2018); member since 2015
- Member HKU Vice President's (Global) committee (2017–2020)
- Member Faculty Teaching and Learning Quality Committee (2016)
- Head of Hong-Kong/AAO/Strasbourg H α Planetary Nebulae project: HASH (2015)
- Head of the Department of Physics, HKU (2015-2016)
- Head of data management group of international Radial Velocity Experiment (RAVE)
- Head of the IPHAS Planetary Nebulae Team (20 researchers in 5 countries)
- External PhD examiner (e.g. Manchester x2, Bristol, Marseille, Padova since 2015)
- Regular referee of papers in top astronomy journals (e.g. MNRAS, ApJ, A&A, AJ)
- Member of executive committee of the Physical Society of Hong Kong (2015 -)
- CI for KOALA Integral field unit instrument at the AAO (2011 2015)
- Member of Macquarie University Teaching Excellence Academy 2012-2015
- Member of 6DF Science Advisory Committee 2002 2015
- Technical assessor for time on Anglo-Australian Telescope 2002 2015
- ARC international reader and laureate, DP and linkage assessor (2004 2015)
- Director of MQAAAstro research centre and chair of executive board (2011-2015)
- Member Macquarie University research centre assessment panel (2012 2015)
- Director of \$2.4M ARC linkage science pedagogy project "Space to Grow" (2009-2014)

External benchmarking of standing :

I am ranked 60^{th} of all HKU researchers according to Google Scholar out of ~3500 academics. I was ranked 17^{th} in Physics in the whole of China in 2021. This places me in the top 1.1% at a top 20 Global university (17 in QS rankings for 2024).