Liang Ze WONG, PhD

CONTACT INFORMATION	Social & Cognitive Computing Department Institute of High Performance Computing 1 Fusionopolis Way, #16-16 Connexis Singapore 138632	wonglz@ihpc.a-star.edu.sg +65 6419 1420

CURRENT APPOINTMENTS	Since Aug 2022 Since Aug 2019	**Adjunct Assistant Professor**, NUS Business School **Research Scientist**, Institute of High Performance Computing

AREAS OF EXPERTISE

Natural Language Processing, Machine Learning, Data Analytics, Graphical Models, Spectral Graph Theory, Quantitative Psychology, Category Theory, Homotopy Theory

EDUCATION

Ph.D. in Mathematics, University of Washington, June 2019

The Grothendieck Construction in Enriched, Internal and ∞-category Theory
Thesis Advisor: James J. Zhang

B.A. in Mathematics, Cornell University, May 2012

Magna cum laude, distinction in all subjects

TEACHING	Fall 2022	Foundations of Business Analytics (DBA 5106, Core Course for NUS M.Sc. in Business Analytics)

GRANTS & PROJECTS	Aug 2022 – May 2023	Team Effectiveness Profiling Scale and Digital Tool PI, Industry Project
	Jun 2022 – Sep 2023	Match.io Founder Matching Platform PI, A*ccelerate Gap-funded Project (A*STAR)
	Dec 2021 – Dec 2023	Operationalization & Correlates of Adolescent Mental Health Co-PI, Social Sciences Innovation Seed Fund (A*STAR)
	Mar 2021 – Mar 2023	Psychological Modelling of Online Personas Scientist, Industry Project
	Mar 2020 – Aug 2020	InPsyche Psychographics API for Consumer Segmentation PI, A*ccelerate Gap-funded Project (A*STAR)

HONORS AND AWARDS	2014 – 2019	A*STAR National Science Scholarship (PhD)
	2018	Ann Giles Graduate Fellowship, University of Washington, Seattle
	2014	Academic Excellence Award, University of Washington, Seattle
	2009 – 2012	A*STAR National Science Scholarship (BSS)
	2009	2nd Place, Freshman Math Prize, Cornell University

PAST APPOINTMENTS	May 2019 – Jun 2019	Consultant, Ukusan Pte Ltd
	Sep 2012 – Aug 2014	Research Engineer, Institute for Infocomm Research
	Jun 2010 – Jul 2010	Intern (Research Attachment), Institute for Infocomm Research
	Mar 2009 – Jul 2009	Intern (Research Attachment), Institute for Infocomm Research

INVENTION DISCLOSURES

L.Z. Wong, G. Krishnamurthy, B.K. Quek, *InPsyche: a platform for building and querying Gaussian graphical models*, IHPC-TD-SCC-2020-017 (2020).

L.Z. Wong, G. Krishnamurthy, B.K. Quek, L.M. Tuan, *Platform for prototyping of web-based survey and charting apps for personality profiling*, IHPC-TD-SCC-2020-022 (2020).

PUBLICATIONS	C. Kapulkin, Z. Lindsey and **L.Z. Wong**, *A co-reflection of cubical sets into simplicial sets, with applications to model structures*, New York Journal of Mathematics (2019)
	J. Beardsley and **L.Z. Wong**, *The Operadic Nerve, Relative Nerve, and the Grothendieck Construction*, Theory and Application of Categories, v34 (2019).
	J. Beardsley and **L.Z. Wong**, *The enriched Grothendieck construction*, Advances in Mathematics, 344 (2019).
	A. Chirvasitu, S.P. Smith and **L.Z. Wong**, *Noncommutative geometry of homogenized quantum $\mathfrak{sl}(2,\mathbb{C})$*, Pacific Journal of Mathematics **292** (2018), no. 2, 305-354.
	L.Z. Wong, H.L.Chen, D.C.L. Chen and S.W.Lin, *Imputing Missing Values in Sensor Networks using Sparse Data Representations*, ACM MSWiM (2014).
	L.Z. Wong, T.Q.S. Quek and M. Padilla, *An Ordinal Potential Function for Network Selection in Heterogeneous Wireless Networks*, IEEE ICASSP (2014).
INVITED TALKS	*A co-reflection of cubical sets into simplicial sets*, Homotopy Type Theory and Univalent Foundations Workshop, Oslo, Norway. (June 2018)
	Weak equivalences between categories of models of type theory, Joint Mathematics Meeting 2018, San Diego. (January 2018)
	Distributive laws, strings attached, International Category Theory Conference 2017, University of British Columbia, Vancouver. (July 2017)

SERVICE	Mar 2022	Judge for Singapore Science and Engineering Fair (SSEF) 2022. Science Centre Singapore.
	Mar 2021	Judge for Singapore Science and Engineering Fair (SSEF) 2021. Science Centre Singapore.
	Mar 2020 - 2021	Mentor for A*STAR-MOE Scientists-in-School Programme. Hwa Chong Institution.
	Feb 2021	Judge for Raffles Science Symposium 2021. Raffles Institution.
	Aug 2020	Segment Presenter for Royal Institute STAR Lecture 2020. Science Centre Singapore.
	Jul 2020	Judge for Science Buskers Festival Auditions. Science Centre Singapore.

LANGUAGES	English, French, Chinese Python, Javascript, R, Matlab
REFERENCES	**Joseph Simons**, Social & Cognitive Computing Department, IHPC, Singapore, simonsj@ihpc.a-star.edu.sg
	James J. Zhang, Department of Mathematics, University of Washington, Seattle, zhang@math.washington.edu
	Chris Kapulkin, Department of Mathematics, Western University, London ON, kkapulki@uwo.ca