Pengcheng Li (李鹏程)

Personal

Basic: Born at Gao'an city, Jiangxi Province, People's Republic of China.

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Positions

03/2021 to present	**Southern University of Science and Technology**, Shenzhen, Guangdong, China; Postdoc, mentor: Yifei, Zhu.
09/2020–01/2021	**Hebei Normal University**, Shijiazhuang, Heibei, China; Visiting scholar, supervisor: Jie Wu.

Education

09/2015–06/2020	M.S.-Ph.D. in Pure Mathematics, Academy of Mathematics and Systems Science (AMSS), **University of Chinese Academy of Sciences** (UCAS); supervisor: Jianzhong Pan.
09/2011–07/2015	B.S. in Mathematics and Applied Mathematics, School of Mathematical Science, **Dalian University of Technology**.
09/2008–07/2011	Jiangxi Gao'an High School

Research Interests

Unstable Homotopy Theory My research field is algebraic topology. I am particularly interested in the unstable homotopy theory of Moore spaces and Chang complexes. I am also interested in their applications in the homotopy theory of manifolds and in the modular cohomotopy theory.

Publications

My MR author ID is 1326070, ORCID is 0000-0003-3845-3796, and Web of Science ResearcherID is GPF-5329-2022.

Published or accepted articles

1. Zhongjian Zhu, Pengcheng Li and Jianzhong Pan. *Periodic problem on homotopy groups of Chang complexes* $C_r^{n+2,r}$, **Homology, Homotopy and Applications**, vol. 21(2), 2019: 363-375. DOI: 10.4310/HHA.2019.v21.n2.a20

2. Pengcheng Li, *(Co)Homology self-closeness numbers of simply-connected spaces*, **Homology, Homotopy and Applications**, vol. 23(1), 2020: 1-16. DOI: 10.4310/HHA.2021.v23.n1.a1

3. Pengcheng Li, Jianzhong Pan, and Jie Wu. *On Modular Cohomotopy Groups*, accepted for publication in the **Israel Journal of Mathematics**. Arxiv:2203.09105.

4. Pengcheng Li. *Self-closeness numbers of product spaces*, accepted for publication in **Homology, Homotopy and Applications**. Arxiv:2208.04776.

Preprints

1. Pengcheng Li, *Homotopy classification of maps between* $\mathbf{A}_n^2$*-complexes and applications in self-homotopy equivalences*, Arxiv:2008.03049.

2. Ruizhi Huang, Pengcheng Li, *Suspension homotopy of simply-connected 7-manifolds*, Arxiv:2208.13145.

Awards and Fellowships

2022–2023	The Young Scientists Fund of National Natural Science Foundation of China, Grant no. 12101290: "The homotopy theory of $(n-1)$-connected $(n+2)$-dimensional CW-complexes and its applications in geometry and physics".
2021	The fellowship of China Postdoctoral Science Foundation (grant no. 2021M691441).
2020	Zhu-Li yuehua Outstanding Doctoral Scholarship (non-western), AMSS, UCAS.
2017	Amy scholarship Excellence Award, AMSS, UCAS.
2015	Outstanding Ph. D. Student Entrance Scholarship of AMSS, UCAS.

Presentations on conferences or workshops

Workshop: Advances in Homotopy theory, I & II

Speaker for the Workshop I, *Modular cohomotopy and cohomology*.

Organizers: The Southampton Centre for Geometry, Topology and Applications (CGTA) and the Beijing Institute of Mathematical Sciences and Applications (BIMSA); online.

Time: I on September 15–17, 2021; II on May 2–4, 2022.

Teaching

Teaching Assistant:

- MA113: Linear Algebra, Autumn 2022, instructor: Xuli Han (韩旭里), Southern University of Science and Technology.