

Chon Man Sou (蘇俊文)

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Education

- Sep 2020 – Jul 2023 **PhD in Physics**
Hong Kong University of Science and Technology (HKUST)
Thesis: Revisit the decoherence of cosmological perturbations with probes of their quantum nature
- Sep 2018 – Aug 2020 **MPhil in Physics**
Hong Kong University of Science and Technology (HKUST)
Thesis: Gravitational production of massive particles in the early universe and the imprints left in primordial fluctuations
- Sep 2014 – Jun 2018 **BSc in Physics**
Hong Kong University of Science and Technology (HKUST)
First Class Honors
- Aug 2017 – Dec 2017 **Education Abroad Program**
University of California, Berkeley

Employment

- Dec 2023 – Present **Postdoc**
Tsinghua University
Shuimu Scholar

Academic Visits

- Jun 2017 – Aug 2017 **The Harvard-Smithsonian Center for Astrophysics**

Publications and Preprints ([INSPIRE-HEP](#) and [Google Scholar](#))

1. S. Ning, **C. M. Sou** and Y. Wang, “On the decoherence of primordial gravitons”, JHEP 06 (2023) 101, arXiv:2305.08071
2. **C. M. Sou**, D. H. Tran and Y. Wang, “Decoherence of cosmological perturbations from boundary terms and the non-classicality of gravity”, JHEP 04 (2023) 092, arXiv:2207.04435
3. **C. M. Sou**, X. Tong and Y. Wang, “Chemical-potential-assisted particle production in FRW spacetimes”, JHEP 06 (2021) 129, arXiv:2104.08772
4. L. Li, T. Nakama, **C. M. Sou**, Y. Wang and S. Zhou, “Gravitational production of superheavy dark matter and associated cosmological signatures”, JHEP 07 (2019) 067, arXiv:1903.08842
5. J. Liu, **C. M. Sou** and Y. Wang, “Cosmic decoherence: massive fields”, JHEP 10 (2016) 072, arXiv:1608.07909

Presentations and Posters

1. **C. M. Sou**, “Revisit the Decoherence of Cosmological Perturbations with the Development of Quantum Information”, 05 Dec 2022, **Tsinghua University**
2. **C. M. Sou**, “Decoherence of Cosmological Perturbations from Boundary Terms and the Non-Classicality of Gravity”, 18 Oct 2022, **Copernicus Webinar and Colloquium Series**

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3. **C. M. Sou**, X. Tong and Y. Wang, “Chemical-potential-assisted particle production in FRW spacetimes”, **The 24th International Conference on Particle Physics and Cosmology (COSMO’21)**

Awards and Honors

2023	Shuimu Scholar, Tsinghua University
2020 – 2023	Bolsas de Mérito para Estudos Pós-Graduados (Macau government scholarship for postgraduate studies)
2020, 2022	HKUST RedBird PhD Scholarship
2018 – 2023	Postgraduate Studentship
2018 – 2019	Best Teaching Assistant Award, HKUST Department of Physics
2014 – 2018	University Scholarship
2017	Lee Hysan Overseas Scholarship
2017	School of Science Exchange Scholarship
2017	HKSAR Government Scholarship Fund – Reaching Out Award
2014 – 2017	Dean’s List, HKUST School of Science
2014	Gold Medal of the 45 th International Physics Olympiad
2013	Silver Medal of the 44 th International Physics Olympiad

Teaching

Sep 2018 – Dec 2022	Teaching Assistant, HKUST Electro and Magneto Statics (Fall 2022) Electricity and Magnetism I (Fall 2022) Quantum Mechanics II (Fall 2019) Physics Enhancement Program (Summer 2019) Advanced Quantum Field Theory (Spring 2019) Laboratory for General Physics I (Fall 2018)
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Service

Observer of the Hong Kong team in the 36th Chinese Physics Olympiad Finals, 2019

Leader of the Macau delegation in the 49th International Physics Olympiad, 2018

Skills

Languages	Native speaker of Chinese. Fluent in English
Programming	Wolfram language, Python
Software	Mathematica (with packages: xAct, MathGR), SLURM (for HPC cluster)