

Dr. Po-Hsun Tseng

6+ years experience of large-scale software development with C programming on the Linux system throughout my Ph.D. journey. Seeking a challenging and rewarding opportunity with low-level system programming (eg. device driver, Linux kernel, CPU architecture) to apply my skills at a fabless company.



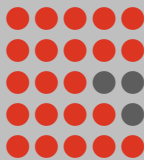
CONTACT

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📍 Hsinchu, Taiwan
🐙 <https://github.com/zengbs>

SKILLS

Programming

- C
- Bash scripting
- System programming
- CUDA
- Python



Operating System

Linux - user
Linux - kernel



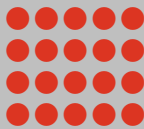
Architecture

ARM architecture



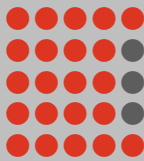
Software & Tools

- Git
- Vim
- Gdb
- Valgrind



Languages

Chinese (native)
English - writing
English - speaking
English - listening
English - reading







EDUCATION

08/2016 - 06/2022
National Taiwan University, Taiwan

Ph.D. in Computational Physics

- Developed and implemented a new algorithm to reduce numerical error by 10^6 compared to conventional one. See Fig. 16 in (<https://arxiv.org/abs/2012.11130>).
- Designed a new approach to further promote the robustness of GAMMER. The new approach was adopted in the research project led by Dr. Kuo-Chuan Pan from Tsing Hua University. See the merged branch: (<https://github.com/gamer-project/gamer/pull/60>)
- Worked on improving the GAMER collaborated with Dr. Tzihong Chiueh and Dr. Hsi-Yu Schive. See the Section *References*.
- A main contributor of the gammer-project on GitHub. See: (<https://github.com/gamer-project/gamer/graphs/contributors>)
- Built NIS, NFS, and Linux cluster from scratch with colleagues and worked with Dr. Hsi-Yu Schive to bootstrap simulations for research.

WORK HISTORY

 12/2014 - 01/2016
 TDK corporation, Singapore
Design the circuit of surface acoustic wave(SAW) filters
 08/2013 - 08/2014
 Military Service

EDUCATION

- 📅 09/2011 - 07/2013
📍 National Taiwan University, Taiwan
M.Sc. in Physics
- 📅 09/2006 - 07/2011
📍 National Central University, Taiwan
B.Sc. in Mathematics

SOFT SKILLS

Nonverbal communication Active listening Open mindedness

Patience Mutual respect Teamwork Brainstorming

Collaboration


GENERAL SKILLS



Numerical algorithm Large-scale project cscope makefile

GNU autotools

PUBLICATIONS


An adaptive mesh, GPU-accelerated, and error minimized special relativistic hydrodynamics code

 **Po-Hsun Tseng**, Hsi-Yu Schive, Tzihong Chiueh

 2021  Monthly Notices of the Royal Astronomical Society Vol. 504, pp. 3298-3315
<https://arxiv.org/abs/2012.11130>

 [ADS](#)

The symmetry problem of the Fermi and eROSITA bubbles: A proof-of-concept study

 **Po-Hsun Tseng**, Hsiang-Yi Karen Yang, Hsi-Yu Schive, Chun-Yen Chen, Tzihong Chiueh

 2022  preprint



TALKS

- An adaptive-mesh, GPU-accelerated, and optimally error-controlled special relativistic hydrodynamics code
Oral (remote), American Center for Physics College Park, U.S.A Mar. 2021
- A new and accurate code for simulating special relativistic hydrodynamics
Oral, Annual Meeting of the Physical Society of Taiwan, NPTU. Feb. 2020

REFERENCES

- Please send an appointment letter to request a call. 😊
- Dr. Tzihong Chiueh
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- Dr. Hsi-Yu Schive
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- Dr. Hsiang-Yi Karen Yang
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