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.
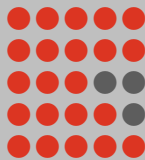
CONTACT

✉ zengbs@gmail.com

📞 +886 966 587 832

📍 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	●●●●●
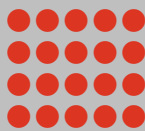
Languages

Chinese (native)	●●●●●
English – writing	●●●●○
English – speaking	●●●●○
English – listening	●●●●○
English – reading	●●●●●
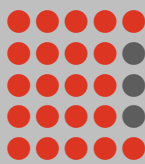
🎓 EDUCATION

📅 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 a research project led by Dr. Kuo-Chuan Pan from Tsing Hua University. See the merged branch: (`https://github.com/gamer-project/gamer/pull/60/files`)

- Worked on improving the GAMER collaborated with Dr. Chiueh/Dr. 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. Schive to bootstrap simulations for research.

⚙ WORK HISTORY

📅 12/2014 - 01/2016
📍 TDK corporation, Singapore
Circuit designer
Design the circiut 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   🔗 ADS
                      https://arxiv.org/abs/2012.11130

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

Po-Hsun Tseng, Hsiang-Yi Karen Yang, Hsi-Yu Schive, 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
  Distinguished Professor, Institute of Astrophysics, National Taiwan University
  📍 Taipei 10617, Taiwan
  ✉️ chiuehth@phys.ntu.edu.tw
  📞 +886 2 3366 8628

- Dr. Hsi-Yu Schive
  Assistant Professor, Institute of Astrophysics, National Taiwan University
  📍 Taipei 10617, Taiwan
  ✉️ hyschive@phys.ntu.edu.tw
  📞 +886 2 3366 8644

- Dr. Hsiang-Yi Karen Yang
  Assistant Professor, Institute of Astronomy, National Tsing Hua University
  📍 Hsinchu 30013, Taiwan
  ✉️ hyang@phys.nthu.edu.tw
  📞 +886 3 574 2953