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 a factor of 10^6 compared to conventional one. See Fig. 16 in (`https://arxiv.org/abs/2012.11130`).
- A main contributor of the gammer-project on GitHub. (`https://github.com/gamer-project/gamer/graphs/contributors`)
- Designed a new approach to promote the robustness of the GAMMER. (`https://github.com/gamer-project/gamer/pull/60/files`)
- Worked on improving the GAMER collaborated with Dr. Chiueh/Dr. Schive see the Section *References*)
- Built and maintained the Linux cluster, NFS, and NIS in our lab.

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
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