

# 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.**



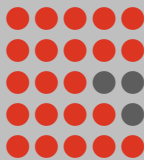
## CONTACT

✉ 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



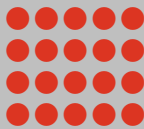
## Architecture

## ARM architecture



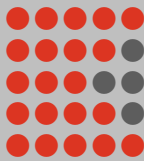
## Software & Tools

- 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 GAMER. 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 GAMER. 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 circiut of surface acoustic wave(SAW) filters

## Circuit designer

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  
Distinguished Professor, Institute of Astrophysics, National Taiwan University  
 Taipei 10617, Taiwan  
 [chiuehth@phys.ntu.edu.tw](mailto: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](mailto: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](mailto:hyang@phys.nthu.edu.tw)  
 +886 3 574 2953