

# 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.**



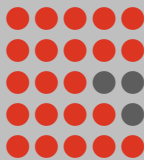
## CONTACT

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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



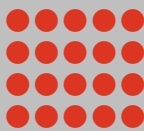
## Architecture

## ARM architecture



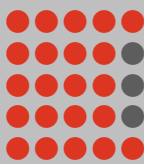
## Software & Tools

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 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 further 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 NIS, NFS, and Linux cluster in our lab.

## 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

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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, Tzihong Chiueh

 2022  preprint



## TALKS

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- 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

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- 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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