

**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.**



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

## 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

 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/gammer-project/gammer/graphs/contributors>)
- Designed a new approach to promote the robustness of the GAMMER.  
(<https://github.com/gammer-project/gammer/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  
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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 Taipei 10617, Taiwan  
 [chiuehth@phys.ntu.edu.tw](mailto:chiuehth@phys.ntu.edu.tw)  
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- 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)  
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- Dr. Hsiang-Yi Karen Yang  
Assistant Professor, Institute of Astronomy, National Tsing Hua University  
 Hsinchu 30013, Taiwan  
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