

Numerical Astrophysics Summer School: Astrophysical Fluid Dynamics



Multi-messenger Astrophysics @ Taiwan

Seed Program at
National Center for Theoretical Sciences

Core Members:

Hsiang-Kuang Chang (NTHU)

Ken Chen (ASIAA)

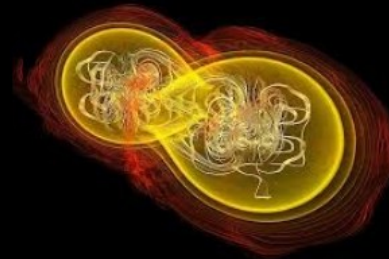
Hiroyuki Hirashita (ASIAA)

Albert Kong (NTHU)

Kuo-Chuan Pan (NTHU)

Hsi-Yu Schive (NTU)

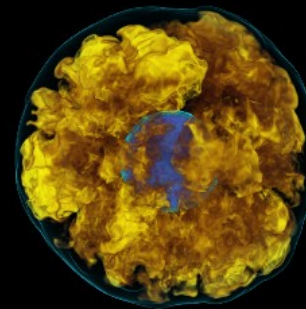
Meng-Ru Wu (ASloP)



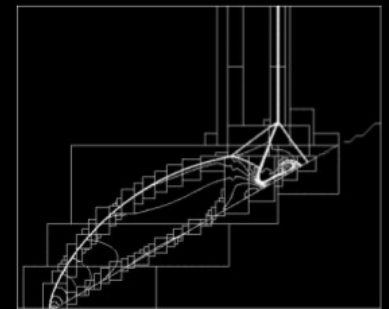
Neutron star merger/ Kilonovae



Cosmological structure formation



Core-collapse supernovae
Gravitational Wave



Astrophysical code development



國立清華大學
NATIONAL TSING HUA UNIVERSITY



Numerical Astrophysics Summer School: Astrophysical Fluid Dynamics

Goals: (i) learn the basic theory behind hydro simulation
(ii) learn how to run hydro simulation with FLASH
(iii) complete a small project and present it

5 lectures and 5 hands-on sessions, each person will team up with other 2 or 3 people to form a group to work on a project

This lab will remain open until 9:30pm, feel free to work on the project as late as possible, if you would like to

Lunch boxes in all three days will be provided here, dinner is on your own
(* no food is allowed in this room *)

Reimbursement: please give Kuo-Chuan your transportation ticket and hotel receipt (VAT number needed for hotels outside NTHU) at the 3rd day (9/6)

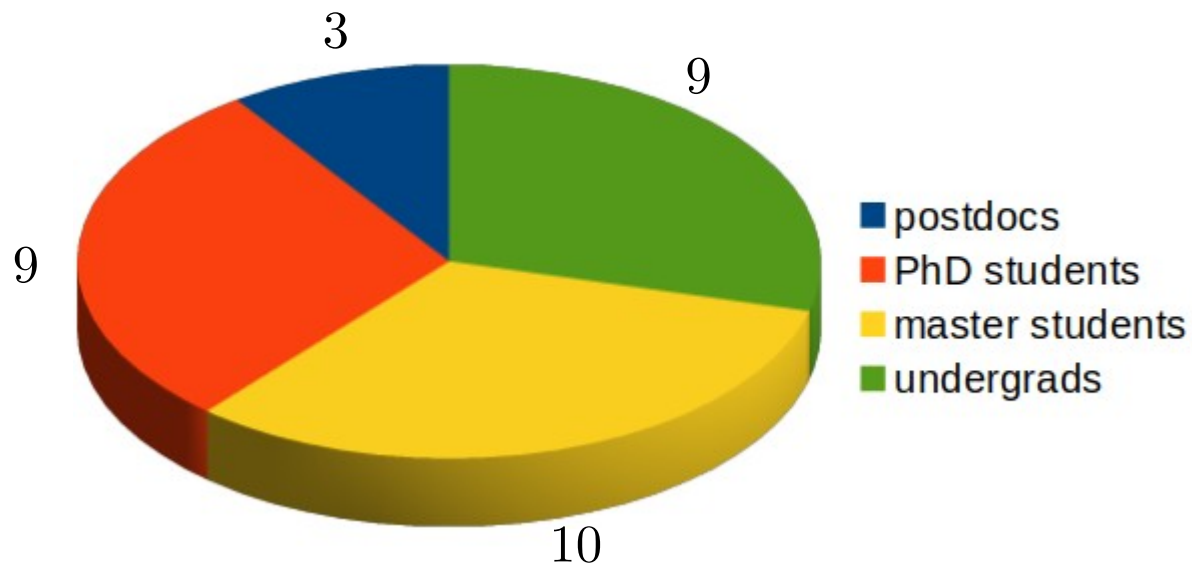
Group photo: 9/6 morning coffee break

Numerical Astrophysics Summer School: Astrophysical Fluid Dynamics

Lecturers: Kuo-Chuan Pan, Hsi-Yu Schive, Ke-Jung Chen

Assistants: Han Cheng, Wan-Hsien Cho, Chia-Hui Lin, Shiau-Jie Rau, Brian Yu

Participants: 31 people, from 9 different universities/institutes
will be split into 8 groups



Numerical Astrophysics Summer School: Astrophysical Fluid Dynamics

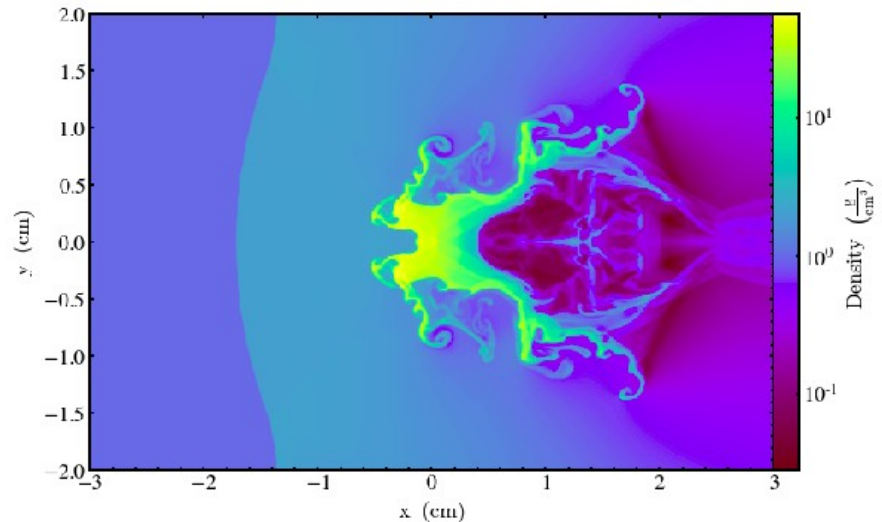
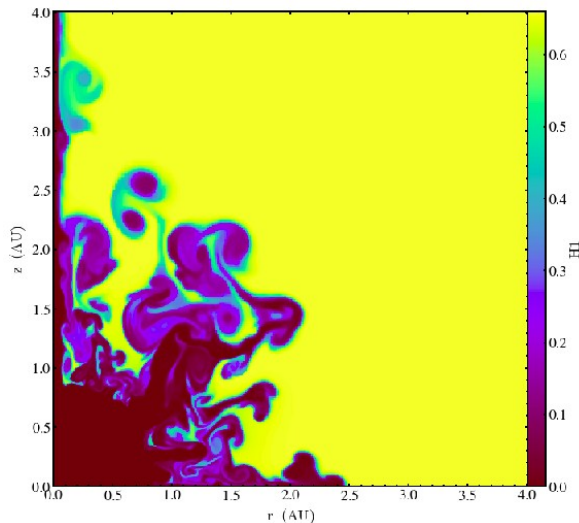
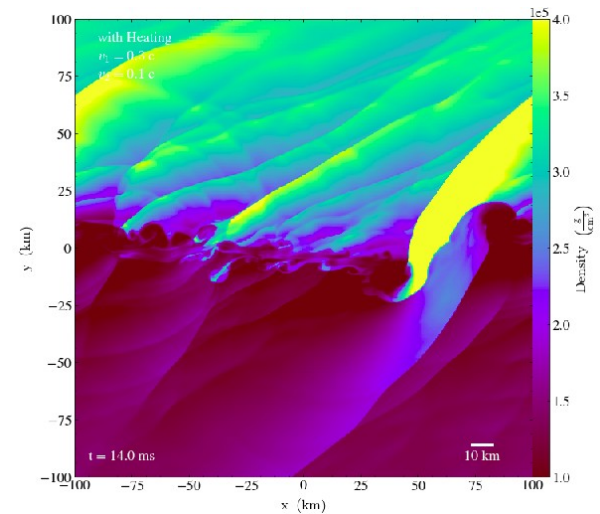
Three main projects:

A: Mixing in neutron star merger ejecta

B: Shock Cloud Interaction

C: Exploding a star with a thermal bomb

Tell us your preference!



(secret: a small prize will be given to...shhh...)