



Hellenic Astronomical Society Summer School 2022
The Milky Way Galaxy – Formation and Evolution

Co-organized by the Department of Physics of NKUA

<https://helas.gr/school/2022/index.php>

Athens 25, 26, 27 Ιουλίου 2022

Drakopoulos amphitheater

PRELIMINARY PROGRAM

Monday 25-7-2022

I. DYNAMICS

Morning Session (09:30-13:00)

9:20-9:30 Welcome by the organizers

9:30-11:00 Athanassoula L. Dynamics, formation and the dynamical evolution of the Galactic disc and its structures

11:00 – 11:30 Coffee break

11:30-12:15 Roca Fabrega S. Spiral structures – comparison with observations.

12:15-13:00 Roca Fabrega S. Effects of external perturbations by satellites and inflows of primordial gas on Galactic chemistry and star formation

13:00-14:00 Lunch Break

Afternoon Session (14:00 - 18:00)

14:00-15:00 Roca Fabrega S. Hands-on exercises on dynamical simulations

**II. INTERSTELLAR MEDIUM – STAR FORMATION-
MAGNETOHYDRODYNAMICS**

15:00-16:30 Dormousi E. Magnetized fluids in Astrophysics, Techniques and Algorithms – introduction to RAMSES

16:30-17:00 Coffee Break

17:00-18:00 Dormousi E. Hands-on exercises with the RAMSES code

Tuesday 26-7-2022

Morning Session (09:30-13:00)

9:30-11:00 Bisbas Th. The dusty ISM – Star Formation- Nebulae and HII-regions

11:00-11:30 Coffee Break

11:30-13:00 Bisbas Th. Numerical simulations-Hydrodynamical methods – Astrochemical methods

13:00-14:00 Lunch Break

Afternoon session (14:00 - 18:00)

14:00-15:30 Tassis C. ISM and magnetic fields

15:30-16:00 Coffee Break

16:00-17:00 Bisbas-Tassis Hands on exercises on MW ISM and SF

17:00-18:00 Roca Fabrega S., Hatzidimitriou D. Gaia DR3 hands on exercises

Wednesday 27-7-2022

III. THE CENTRAL GALAXY

Morning Session (09:30-13:00)

9:30-11:00 Vasilopoulos G. The central regions of the MW galaxy in high energies

11:00-11:30 Coffee Break

11:30 – 13:00 G. Pappas The central supermassive black hole

13:00-14:00 Lunch Break

Afternoon Session (14:00 – 16:00)

14:00-16:00 Vasilopoulos G. Hands-on session on Galactic central regions in X-rays

16:00-17:00 Kauffman J. The molecular environment of the Galactic Center