

Zakres materiału wymaganego na egzamin z astrofizyki.

1. Telescopes/detectors: from radio to gamma-rays
2. Methods of distance measurements
3. The Solar system and its dynamics
4. Extrasolar planetary systems and their formation
5. Stellar structure
6. Stellar evolution
7. Intrinsic and extrinsic causes of stellar variability
8. Interstellar medium
9. Supernova
10. Gamma-ray bursts
11. The evolution of binary stars
12. White dwarfs, neutron stars, black holes
13. Compact stellar binaries
14. Stellar clusters
15. Galaxies: structure, dynamics
16. Dark matter
17. Dark energy
18. Radiative processes in astrophysics
19. Expansion of the Universe; Hubble's law
20. Large scale structure of the Universe
21. Microwave background radiation
22. Cosmological parameters
23. Active galactic nuclei
24. Accretion phenomena in astrophysics
25. Winds and jets from compact astrophysical objects
26. Cosmic rays and neutrinos
27. Gravitational lensing
28. Gravitational waves
29. Special Relativity vs. General Relativity