OBSERVATIONAL ASTROPHYSICS

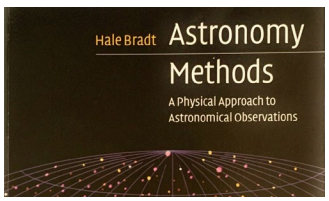
"LOOK AT THE SKY TO LEARN PHYSICS"

FY3215 https://www.ntnu.edu/studies/courses/FY3215

MSc (BSc) Physics – NTNU - Spring 2024 – Coordinator: M. Linares

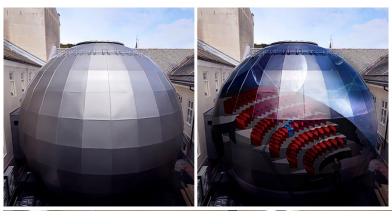
++ AstroLABs (data analysis within Linux-Unix)

++ Observing Project (design, obtain and analyze own observations)



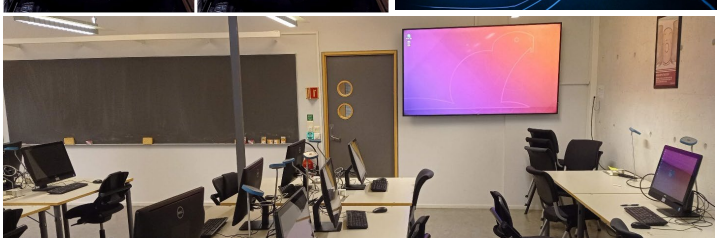
Lectures (Classroom)

- Fluxes, magnitudes, BB radiation, redshifts
- Telescopes, space- and ground-based, radio-gamma-ray
- Detectors, statistics
- Cosmic rays, neutrinos, gravitational waves



Lecture 1.2 (Planetarium Vitensenteret Trondheim)

- The celestial sphere
- Movements: Moon, Sun, Planets. Trigonometric parallax
- Coordinate systems in Astronomy, Spherical Trigonometry
- Visibility
- Time systems in Astronomy



AstroLABs & Observing Project (Linux Lab, FNS)

- P5.1: Optical photometry
- P5.2: Optical spectroscopy
- P5.3: X-ray timing
- P5.4: X-ray imaging/spectroscopy
- Observing proposal
- Project report

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