



GPPU lectures

(2 lectures x 3 days)

Time and Date: 10:00-11:30, 13:30-15:00, Mar. 4-6, 2024

Place: Room 745, Science Complex B H03 (hybrid)

Registration: "https://us02web.zoom.us/meeting/register/tZYrfuCgqDIjHNUf-A0-S3DHoK4QA_fZQNqs"

“Introduction to Observational Cosmology”

Prof. Toshifumi Futamase (Tohoku University)

The cosmology is a branch of physics which studies the origin and the evolution of the universe. In late years it has been developing rapidly by progress of various astronomical observations as well as the theoretical understanding of high energy particle physics. New observational equipments such as space telescope, gravitational wave telescope, new radio telescope are expected to further accelerate progress. This lecture will explain the basics essentials to understanding this rapid development. The contents of the lecture are as follows:

- 1. The basic fame work of cosmology**
- 2. The basic concept in the observational cosmology**
- 3. Introduction to structure formation in the universe**
- 4. CMB physics**
- 5. Introduction and applications of gravitational lensing**