Level: master

Course title: Radiation Detectors

Status: elective

**ECTS**: 9

**Requirements**: Nuclear Physics

## Learning objectives

To introduce students to a broad spectrum of different radiation detection techniques, detectors and detection equipment.

## Learning outcomes

After successfully completed Radiation Detector course, students should be qualified to work with very different types of detectors.

## **Syllabus**

General features of detectors. Gas ionization detectors. Photographic emulsion, cloud chambers, bubble chambers. Scintillation detectors. Photomultipliers. Semiconductor detectors. Cherenkov detectors. Calorimeters. Neutron detectors.

| Weekly teaching load |              |                            |                   | Other: |
|----------------------|--------------|----------------------------|-------------------|--------|
| Lectures: 3          | Exercises: 1 | Other forms of teaching: 1 | Student research: |        |