

Division of Mathematical and Physical Sciences	Research field	Astrophysics	Lab. ID MP12			
Laboratory web site	http://astro.s.kanazawa-u.ac.jp					
Research subjects						
<p>In the astrophysics lab, we develop X-ray/gamma-ray detectors for use on astronomy satellites, and observationally research the early Universe and the structural formation. A gamma-ray polarization detector was mounted on the solar sail IKAROS and launched in 2010, and we succeeded in detecting gamma-ray polarization from gamma-ray bursts. A cryogenic high-resolution X-ray spectrometer that we developed with JAXA, NASA and other research institutions is now mounted on XRISM and will be launched in 2022. We are also developing a 50-kg nanosatellite led by students in collaboration of the science and engineering divisions, which will be launched in 2022. In addition, we are now planning future satellite missions and performing basic development of onboard satellite instruments. Furthermore, with accumulated satellite technology and expertise, we develop new interdisciplinary instruments for medical and environmental applications. We also analyze scientific data obtained with satellites such as XMM-Newton, Swift, Fermi to research astrophysics and cosmology.</p>						
Master/Doctor course: Education policy, curriculum, typical activity in the laboratory						
<p>At the beginning of the first year of the master course, your supervisor is determined based on your interest and your course after graduation. You will make your experimental study and/or data analysis under the supervisor. There is an entire meeting and seminar once per week. All the members should join them. You are expected to report your progress and share information with each other in the meeting. In the seminar, a textbook is selected based on students' interest. You are responsible to lecture in turn.</p>						
Daily life in the laboratory, etc.						
<p>Except for the entire/group meetings and the seminar, you won't have a temporal restriction. You are expected to control your daily life by yourself. Students share one room that has a small space you can relax. You can freely chat with other students and teachers. We have a welcome party and a year-end party as regular lab activities, and also several irregular events.</p>						
Message or comments by the laboratory faculty staffs						
<p>We welcome those who want to develop detectors for observing Universe by yourself, and to unveil mysteries of the Universe through observations. Astrophysics may not be directly useful nor helpful for our daily life. However, it is one of the most fundamental research themes for humankind. How wonderful it is that we the humankind who cannot live away from the small planet earth tackle mysteries of the Universe and reveal them one by one. Through experiments and data analysis, you are expected to learn physics, and also how to progress with research and development. We welcome those who wish to go to the doctor course. We also welcome who plan to find a job after you finish the master course. You won't have any difficulties to find a job after you learn astrophysics in the graduate school.</p>						
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