

# Physics members

Period of Stay June 26 ~ August 6, 2024

Name of Hosting Faculty Member (Title)	Research Topic & Research Description	Can be changed to online when it is difficult to conduct in person
	Special academic conditions required for research	
<b>Yasushi OKADA</b> (Professor)  <a href="#">Website</a>	Development of Advanced Optical Microscopy Techniques and their Application in Cell Biology Research Our laboratory specializes in developing cutting-edge optical microscopy technologies, like super-resolution microscopy, and their applications in molecular cell biology. Interns will gain hands-on experience in technical development, delving into microscope optics, probes, or image processing, or directly in cellular biology research, such as live-cell imaging and single-molecule measurements in living cells or in vitro.	NO.
	<ol style="list-style-type: none"> <li>1) <b>Prerequisite knowledge and/or specific skill and its proficiency</b> Basic knowledge of microscope optics and/or cell biology</li> <li>2) <b>Required major field(s)</b> Biophysics, cell biology or basic optics</li> <li>3) <b>Academic background or research project experience to be considered at selection</b> Animal cell culture, microscopy, live cell imaging, image processing, machine learning, molecular cloning</li> <li>4) <b>Selection and evaluation criteria, if any:</b> Candidates will be evaluated based on their level of enthusiasm, specificity of interests, and how well their aspirations align with the direction and objectives of our laboratory.</li> </ol>	
<b>Takuro IDEGUCHI</b> (Associate Professor)  <a href="#">Website</a>	Ultrafast laser spectroscopy, Bioimaging	NO.
	<ol style="list-style-type: none"> <li>1) <b>Prerequisite knowledge and/or specific skill and its proficiency</b> Basic knowledge of optics</li> <li>2) <b>Required major field(s)</b> Physics, Chemistry, Biology, Engineering, or Information science</li> <li>3) <b>Academic background or research project experience to be considered at selection</b> None</li> <li>4) <b>Selection and evaluation criteria, if any:</b> None</li> </ol>	
<b>Yasuhiro NAKAJIMA</b> (Associate Professor)  <a href="#">Website</a>	Our group is conducting experimental studies of particle and astroparticle physics with neutrinos. Possible research topics for students include, but are not limited to; developing a new kind of neutrino detector, testing a new method to search for neutrinoless double-beta decay, and simulation of a large water Cherenkov detector for improved neutrino detection.	NO.
	<ol style="list-style-type: none"> <li>1) <b>Prerequisite knowledge and/or specific skill and its proficiency</b> Basic knowledge of physics.</li> <li>2) <b>Required major field(s)</b> Physics</li> <li>3) <b>Academic background or research project experience to be considered at selection</b> Preferrable to have experiences on computer programming and physics lab.</li> <li>4) <b>Selection and evaluation criteria, if any:</b> Interests in experimental particle physics and/or particle astrophysics.</li> </ol>	