UTRIP 2026 Host Laboratory Information

Department	Name and Title of Hosting Faculty Member	Laboratory Website	Research Topic & Research Description
Physics	Yasushi OKADA (Professor)	https://www.okada-lab.phys.s.u-tokyo.ac.jp/index.php/en/	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.
			Special Academic Conditions Required for Research
			1) Prerequisite knowledge and/or specific skills, and required level of proficiency Basic knowledge of microscope optics and/or cell biology
			2) Required major field(s) of study Biophysics, cell biology or basic optics
			3) Academic background or research project experience to be considered during selection Animal cell culture, microscopy, live cell imaging, image processing,machine learning, molecular cloning
			4) Selection and evaluation criteria (if any) 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.
Department	**Name and Title of Hosting Faculty Member**	**Laboratory Website**	**Research Topic & Research Description**
Physics	Haozhao LIANG (Associate Professor)	https://tnp.phys.s.u-tokyo.ac.jp/en/index.html	Quantum many-body theories for properties of atomic nuclei The research focuses on applying and developing quantum many-body theories to investigate the novel properties of stable and unstable nuclei and the impacts on astrophysical nucleosynthesis.
			Special Academic Conditions Required for Research
			1) Prerequisite knowledge and/or specific skills, and required level of proficiency Knowledge on quantum mechanics
			2) Required major field(s) of study Theoretical physics or Computational physics
			3) Academic background or research project experience to be considered during selection It would be better to have some basic knowledge of nuclear physics or atomic physics
			4) Selection and evaluation criteria (if any) None
Department	**Name and Title of Hosting Faculty Member**	**Laboratory Website**	**Research Topic & Research Description**
Physics	Kuniaki KONISHI (Associate Professor)	https://www.kkns.ipst.s.u-tokyo.ac.jp/en/home	We are investigating new physical phenomena caused by the interaction of light with nano- and micro-scale ultra-fine artificial structures fabricated by state-of-the-art microfabrication techniques, and their application to optical control (Metasurface and Meta-optics). Furthermore, based on condensed matter physics, we are exploring the scientific principles of laser processing to understand why light can break things, and are developing new methods for fabricating micro three-dimensional structures using state-of-the-art ultrashort pulsed lasers. This UTRIP progrum provides an opportunity to experience the fundamentals of metamaterials or laser processing research.
			Special Academic Conditions Required for Research
			1) Prerequisite knowledge and/or specific skills, and required level of proficiency Basic knowledge of optics, lasers, and solid state physics. English language skills for communicating.
			2) Required major field(s) of study Optics, Solid State Physics
			3) Academic background or research project experience to be considered during selection It is better for the student to have previous experience of conducting optical experiments and working with lasers.
			4) Selection and evaluation criteria (if any) Priority will be given to junior class students who are interested in future graduate study in Japan