

Division of Electrical, Information and Communication Engineering	Research field	Quantum Science and Technology	Lab. ID EI32
Laboratory web site	https://qst-ku.github.io/		
Research subjects			
<p>We conduct theoretical research on the control of physical and information-processing systems that operate according to quantum mechanics.</p> <p>Our objectives are diverse, including the extraction of nontrivial physical phenomena and the realization of quantum information processing.</p> <p>In recent years, our main focus has been on the design and control of quantum simulations and computational algorithms executed on quantum computers, where research and development are rapidly advancing.</p> <p>In addition, we are interested in fundamental problems such as the foundations of quantum theory, emergent phenomena in many-body systems, and nonequilibrium dynamics.</p>			
Master/Doctor course: Education policy, curriculum, typical activity in the laboratory			
<p>Research topics are determined through discussion with the supervisor based on each student's interests. In principle, students are not restricted to the specific topics or methods previously pursued by the supervisor. No prior knowledge of the research field is required upon entering the master's program. For the doctoral program, students are expected to be sufficiently trained and to start research activities promptly.</p> <p>In addition to group meetings and study sessions, individual research discussions will be held. Online meetings and discussions are also conducted when necessary.</p> <p>If research results are obtained, students will be expected to present their work at domestic and international conferences, as well as publish papers. Seminars by external researchers will also be organized occasionally.</p>			
Daily life in the laboratory, etc.			
<p>While regular communication and participation in events are expected, students are otherwise free. Each member is encouraged to carry out their research activities according to their own style.</p>			
Message or comments by the laboratory faculty staffs			
<p>We welcome students who think independently, take initiative, express their ideas, and communicate with others- or who are willing to develop these abilities.</p>			
Laboratory mail address	Kazutaka Takahashi <ktakahashi *at* se.kanazawa-u.ac.jp>		