

Technological Directory - Graduate School and Faculty of Engineering (2020)

Department of General Education

Discipline	Field	Expertise	Keyword 1	Keyword 2	Keyword 3	Open to consultations on	Lab	Researcher	Related researchers
Biology	Basic biology	Ecology/environment	Brackish water ecology	Dinoflagellates	Cyst	Algal ecology in brackish water, focusing on dinoflagellates connected with red tide and shellfish poison	Biology Lab	Natsuhiko KOJIMA, Professor	
Biology	Basic biology	Biodiversity/ Taxonomy	Marine invertebrates	Crustacea	Systematics	Faunal research on marine Crustacea	Biology Lab	Masako MITSUHASHI, Associate Professor	
Mathematical and physical science	Earth and planetary science	Geology	Kobe Group	Tuff rocks	Rock description	Rock description and geological analysis of (order of stratification, tectonics, depositional mechanics/environment, etc.) the Kobe Group tuff rocks, which represents an increased likelihood of landslides	Geology Lab	Yasutaka TANI, Associate Professor	Jun TANAKA, Professor
Mathematical and physical science	Mathematics	Algebra	Number theory	Zeta function	Bernoulli numbers	Analytic properties of multiple zeta functions and combinatorial properties of Bernoulli numbers	Mathematics Lab	Tsuneo ISHIKAWA, Professor	Ichiro TAKADA, Professor
Mathematical and physical science	Mathematics	Analysis	Schrödinger operator	Spectral theory	magnetic fields	Mathematical spectral theory for Schrödinger operators	Mathematics Lab	Tetsuya HATTORI, Associate Professor	Shinichi SHIRAI, Associate Professor
Mathematical and physical science	Mathematics	Topology	Knot Theory	Three Dimensional Manifold	Spatial Graph	Topological properties of embeddings of circles and graphs in a three dimensional manifold	Mathematics Lab	Tatsuya TSUKAMOTO, Associate Professor	Kengo KISHIMOTO, Associate Professor
Mathematical and physical science	Physics	Physical characteristics I	Optical characteristics	Wide-gap semiconductors	Mesoscopic (surface / interface)	Micro and nano particle manufacturing techniques and optical characteristics of wide-gap semiconductors (ZnO, etc.)	Applied Physics Lab	Yoshiyuki HARADA, Professor	
Mathematical and physical science	Physics	Physical characteristics I	Semiconductors	2D Materials	Quantum Trasport	Electrical properties of semiconductors and related devices	Applied Physics Lab	Akira FUJIMOTO, Associate Professor	
Mathematical and physical science	Physics	Particle Physics	Quantum Field Theory	Supersymmetry	String Theory	Relations between Supersymmetric Quantum Field Theory and Soluble Models	Physics Lab	Masahito HAYASHI, Professor	
Mathematical and physical science	Physics	Nuclear Physics	Nuclear Theory	Nuclear many-body theory	Nuclear resonance	General properties of atomic nuclei from theoretical point of view	Physics Lab	Takayuki MYO, Associate Professor	
Physics	Condensed Matter Theory	Quantum Many-Body Problem	Statistical Mechanics and Thermodynamics	Quantum Field Theory	Phase Transition	Theoretical analysis of crystalline solids and other quantum many-body systems	Physics Lab	Masahiro NAKANO, Associate Professor	
Mathematical and physical science	Physics	Condensed Matter Physics	Photophysics	Ultrafast Phenomena	Semiconductor Nanostructures	Spectroscopic investigatios of semiconductors	Applied Physics Lab	Takayuki HASEGAWA, Lecturer	