

**List of Faculty**  
**Tokyo Institute of Technology International Graduate Program (A)**  
**Commencing in September 2023**

**A-1 International Graduate Program in Science for Innovative and Quantum-expert Leaders (PSIL)**

**(1) Dept. of Mathematics**

Academic Supervisor		Research Field	Remarks	Graduate Major
Professor	OCHIAI, Tadashi	Number Theory, Arithmetic Geometry		• Mathematics
Professor	TAGUCHI, Yuichiro	Number Theory		• Mathematics
Professor	NAITO, Satoshi	Representation Theory		• Mathematics
Associate Professor	SUZUKI, Masatoshi	Analytic Number Theory		• Mathematics
Associate Professor	MA, Shohei	Algebraic Geometry		• Mathematics
Associate Professor	YATAGAWA, Yuri	Arithmetic Geometry		• Mathematics
Associate Professor	OYA, Hironori	Representation Theory		• Mathematics
Professor	ENDO, Hisaaki	Topology		• Mathematics
Professor	GOMI, Kiyonori	Algebraic Topology, Mathematical Physics		• Mathematics
Professor	HONDA, Nobuhiro	Complex Geometry		• Mathematics
Associate Professor	KALMAN, Tamas	Topology		• Mathematics
Associate Professor	NOSAKA, Takefumi	Topology		• Mathematics
Associate Professor	HATTORI, Toshiaki	Geometry		• Mathematics
Professor	KAGEI, Yoshiyuki	Partial Differential Equations		• Mathematics
Professor	TONEGAWA, Yoshihiro	Partial Differential Equations, Geometric Measure Theory		• Mathematics
Professor	NINOMIYA, Syoiti	Computational Finance, Mathematical Finance, Probability Theory		• Mathematics
Associate Professor	ONODERA, Michiaki	Partial Differential Equations		• Mathematics
Associate Professor	FUJIKAWA, Ege	Complex Analysis		• Mathematics
Associate Professor	MIURA, Tatsuya	Partial Differential Equations		• Mathematics
Professor	NISHIBATA, Shinya	Theory of Partial Differential Equations		• Mathematics
Associate Professor	SUZUKI, Sakie	Knot Theory, Quantum Topology		• Mathematics

Academic Supervisor		Research Field	Remarks	Graduate Major
Associate Professor	MIURA, Hideyuki	Theory of Partial Differential Equations		• Mathematics
Associate Professor (Lecturer)	TSUCHIOKA, Shunsuke	Quantum Algebra, Representation Theory		• Mathematics

## (2) Dept. of Physics

Academic Supervisor		Research Field	Remarks	Graduate Major
Professor	ITO, Katsushi	Particle Physics (Theory)		• Physics
Professor	OKUMA, Satoshi	Low Temperature Physics, Superconductivity		• Physics
Professor	KAGAWA, Fumitaka	Condensed-matter physics, Phase control, Nonequilibrium (Experiment)		• Physics
Professor	KUZE, Masahiro	Particle Physics (Experiment)		• Physics
Professor	KOZUMA, Mikio	Quantum optics, Laser cooling, Bose Einstein condensation		• Physics
Professor	SATOH, Takuya	Ultrafast dynamics, optical condensed matter physics		• Physics
Professor	SASAMOTO, Tomohiro	Statistical physics		• Physics
Professor	JIDO, Daisuke	Nuclear Hadron Physics (Theory)		• Physics
Professor	JINNOUCHI, Osamu	High Energy Particle Physics (Experiment)		• Physics
Professor	SEKIGUCHI, Kimiko	Nuclear Physics (Experiment)		• Physics
Professor	NAKAMURA, Takashi	Nuclear Physics (Experiment)		• Physics
Professor	HIRAHARA, Toru	Surface Physics, Nano /spin-Science		• Physics
Professor	FUJISAWA, Toshimasa	Electron dynamics in semiconductor nanostructures		• Physics
Professor	MURAKAMI, Shuichi	Theoretical Condensed Matter Physics, spintronics, geometrical phases		• Physics
Professor	YAMAGUCHI, Masahide	Cosmology, particle physics, gravitation (Theory)		• Physics
Professor	OHZEKI, Masayuki	Quantum Mechanics and Statistical Physics for Information processing (Machine learning and Quantum Computation)		• Physics
Professor	NOTOMI, Masaya	Nanophotonics, Photonic crystals, Metamaterials		• Physics
Associate Professor	AIKAWA, Kiyotaka	Atomic and molecular physics, Quantum optics, Laser cooling		• Physics
Associate Professor	ISHIZUKA, Hiroaki	Theoretical condensed matter physics, transport phenomena, magnetism		• Physics
Associate Professor	IMAMURA, Yosuke	Particle Physics (Theory)		• Physics
Associate Professor	UCHIDA, Masaki	Topological and correlated materials, Molecular beam epitaxy, Quantum transport phenomena		• Physics

Academic Supervisor		Research Field	Remarks	Graduate Major
Associate Professor	KOGA, Akihisa	Strongly correlated electron systems		• Physics
Associate Professor	SUYAMA, Teruaki	Cosmology, gravitational waves (Theory)		• Physics
Associate Professor	SEKIZAWA, Kazuyuki	Nuclear Physics (Theory)		• Physics
Associate Professor	SOMIYA, Kentaro	Gravitational Wave Detector		• Physics
Associate Professor	NISHIDA, Yusuke	Theoretical Quantum Physics, Ultracold Atoms		• Physics
Associate Professor	FUJIOKA, Hiroyuki	Nuclear and Hadron Physics (Experiment)		• Physics
Associate Professor	MATSUSHITA, Michio	Optical spectroscopy of single proteins		• Physics
Associate Professor	YATSU, Yoichi	Astrophysics (Experiment)		• Physics
Visiting Professor	DOTANI, Tadayasu	X-ray Astronomy (Experiment)	JAXA	• Physics
Specially Appointed Professor	HIGEMOTO, Wataru	Strongly correlated electron systems, Muon science	JAEA	• Physics
Visiting Professor	MATSUHARA, Hideo	Infrared Astronomy (Experiment)	JAXA	• Physics
Visiting Professor	MIYAKE, Takashi	Computational materials science	AIST	• Physics

### (3) Dept. of Chemistry

Academic Supervisor		Research Field	Remarks	Graduate Major
Professor	KAWAGUCHI, Hiroyuki	Coordination Chemistry		• Chemistry
Professor	KAWANO, Masaki	Coordination Chemistry, Chemical Crystallography, Supramolecular Chemistry		• Chemistry • Energy Science and Engineering
Professor	MAEDA, Kazuhiko	Inorganic Materials Chemistry, Photocatalysis		• Energy Science and Engineering • Chemistry
Professor	YASHIMA, Masatomo	Materials Science, Crystallography, Solid State Chemistry & Physics, Solid State Ionics, Crystal Structure Analysis, New Inorganic Materials		• Energy Science and Engineering • Chemistry
Associate Professor	UEKUSA, Hidehiro	Chemical Crystallography, Organic Crystal Chemistry		• Chemistry
Associate Professor	FUKUHARA, Gaku	Analytical Chemistry, Supramolecular Chemistry		• Chemistry
Professor	ISHIUCHI, Shun-ichi	Physical Chemistry, Laser Spectroscopy		• Chemistry
Professor	TANIGUCHI, Kouji	Solid State Chemistry		• Chemistry
Associate Professor	OKIMOTO, Yoichi	Optical Spectroscopy of Solids		• Energy Science and Engineering • Chemistry
Associate Professor	KITAJIMA, Masashi	Physical Chemistry		• Chemistry
Associate Professor	NISHINO, Tomoaki	Surface Chemistry		• Chemistry
Associate Professor	YAMAZAKI, Masakazu	Physical Chemistry, Atomic and Molecular Physics		• Chemistry

Academic Supervisor		Research Field	Remarks	Graduate Major
Professor	OHMORI, Ken	Organic Chemistry		• Chemistry
Professor	GOTO, Kei	Organic Chemistry		• Chemistry
Professor	TOYOTA, Shinji	Physical Organic Chemistry		• Chemistry • Energy Science and Engineering
Associate Professor	ONO, Kosuke	Organic Chemistry, Supramolecular Chemistry		• Chemistry
Associate Professor	KUDO, Fumitaka	Bioorganic Chemistry		• Chemistry
Associate Professor	TAKAYA, Jun	Organic Chemistry		• Chemistry
Professor	NOGAMI, Kenji	Geochemistry, Volcanology		• Chemistry
Associate Professor	TERADA, Akihiko	Volcanology		• Chemistry

**(4) Dept. of Earth and Planetary Sciences**

Academic Supervisor		Research Field	Remarks	Graduate Major
Professor	UENO, Yuichiro	Geology, Biogeochemistry		• Earth and Planetary Sciences
Professor	SATO, Bunei	Observational Astronomy, Exoplanets		• Earth and Planetary Sciences
Professor	NAKAJIMA, Junichi	Seismology, Geophysics		• Earth and Planetary Sciences
Professor	NAKAMOTO, Taishi	Astrophysics, Planetary Formation		• Earth and Planetary Sciences
Professor	YOKOYAMA, Tetsuya	Geochemistry, Cosmochemistry		• Earth and Planetary Sciences
Associate Professor	ISHIKAWA, Akira	Geology, Solid Earth Geochemistry		• Earth and Planetary Sciences
Associate Professor	OHTA, Kenji	Study of the Earth's Deep Interior, High-Pressure Mineral Physics		• Earth and Planetary Sciences
Associate Professor	OKUZUMI, Satoshi	Astrophysics, Planetary Formation		• Earth and Planetary Sciences
Associate Professor	OZAKI, Kazumi	Earth System Science, Theory of Earth's Evolution		• Earth and Planetary Sciences
Associate Professor	GILBERT, ALEXIS	Organic Geochemistry, Biogeochemistry		• Earth and Planetary Sciences
Associate Professor	KANDA, Wataru	Physical Volcanology, Geomagnetism	Volcanic Fluid Research Center	• Earth and Planetary Sciences
Professor	IDA, Shigeru	Planetary Formation, Numerical Simulation	Earth-LifeScience Institute	• Earth and Planetary Sciences
Professor	SEKINE, Yasuhito	Earth and Planetary Environment Evolution, Astrobiology	Earth-LifeScience Institute	• Earth and Planetary Sciences
Professor	HERNLUND, John	Geophysical Modeling	Earth-LifeScience Institute	• Earth and Planetary Sciences
Professor	GENDA, Hidenori	Comparative Planetology, Aqua Planetology	Earth-LifeScience Institute	• Earth and Planetary Sciences