

# List of Supervisors and Research Fields

As of September 1, 2020

Department of Mathematics, Graduate School of Science

Master's Course

Fields	Supervisors		Keywords	Remarks
Algebra	Professor	ASAKURA Masanori	Arithmetic geometry	
	Professor	SAITO Mutsumi	Algebraic analysis, rings of differential operators	
	Professor	MATSUMOTO Keiji	Special functions	
	Professor	YAMASHITA Hiroshi	Representation theory	
	Associate Professor	SHIBUKAWA Youichi	Yang-Baxter equations and quantum groups	
	Associate Professor	Simona Settepanella	Singularity theory, combinatorics	
	Associate Professor	TANABE Kenichiro	Vertex algebras, algebraic combinatorics	
	Associate Professor	MATSUSHITA Daisuke	Algebraic geometry	
Geometry	Assistant Professor	ATOBE Hiraku	Theory of automorphic representation	
	Professor	AKITA Toshiyuki	Algebraic topology, group cohomology, discrete groups	
	Professor	ISHIKAWA Goo	Real algebraic geometry, singularity theory	
	Professor	IWASAKI Katsunori	Complex geometry, dynamical systems, Painlevé systems	
	Professor	YOSHINAGA Masahiko	Algebraic geometry, combinatorics	
	Associate Professor	KOBAYASHI Shimpei	Differential geometry	
	Associate Professor	FURUHATA Hitoshi	Differential geometry	
Analysis	Assistant Professor	KANDA Yutaka	Differential topology	
	Professor	KUBO Hideo	Partial Differential Equations associated with Nonlinear Dynamics	
	Professor	HORA Akihito	Functional analysis, probability theory	
	Professor	HONDA Naofumi	Algebraic analysis	
	Professor	MASAMUNE Jun	Global Analysis	
	Associate Professor	KOBAYASHI Masaharu	Harmonic Analysis	
	Associate Professor	SUZUKI Yuhei	Operator algebras	
	Associate Professor	HASEBE Takahiro	Probability theory, complex analysis, functional analysis	
	Associate Professor	HAMAMUKI Nao	Nonlinear partial differential equations, Theory of viscosity solutions	
Applied Mathematics	Associate Professor	MIYAO Tadahiro	Mathematical physics, functional analysis, condensed matter physics	
	Professor	EI Shin-ichiro	Nonlinear analysis, nonlinear partial differential equations	
	Professor	SAKAI Akira	Probability theory, statistical mechanics, mathematical physics	
	Professor	JIMBO Shuichi	Applied analysis, Partial differential equations, Spectral theory	
	Professor	NAGAYAMA Masaharu	Reaction-diffusion systems, mathematical modeling, numerical simulation	
	Professor	NAMIKI Takao	Ergodic theory, dynamical systems, complex systems	
	Specially Appointed Professor	YURI Michiko	Ergodic theory, dynamical systems, complex systems	
	Associate Professor	KURODA Hirotohi	Partial differential equations, variational analysis	
	Associate Professor	KOBAYASHI Yasuaki	Nonlinear dynamics	
	Associate Professor	SATO Yuzuru	Complex systems, chaotic dynamical systems	
	Associate Professor	TERAMOTO Hiroshi	Dynamical systems, singularity theory, chemical reaction dynamics	
	Associate Professor	MATSUMOTO Kenji	Biophysical complex systems, chaotic dynamical systems	
	Assistant Professor	Borislav Yordanov	Nonlinear wave equations and dissipative evolution equations	
Assistant Professor	Yikan Liu	Partial differential equations, inverse problems		

※There is a possibility that the members of supervisors change. Please get the latest information from the website of the Graduate School of Science.

## Department of CosmoSciences, Graduate School of Science

## Master's Course

Laboratories	Supervisors		Keywords	Remarks
Observational Astronomy	Associate Professor	SORAI Kazuo	Observational astronomy, extragalactic astronomy, interstellar matter, development of observational instruments and system for the Antarctic THz telescope	
Theoretical Particle Physics and Cosmology	Professor	SUZUKI Hisao	Particle physics, beyond the standard model, dark matter, dark energy, grand unified theory, superstrings, supersymmetry, early universe	Institute for the Advancement of Higher Education
	Professor	KOBAYASHI Tatsuo		
	Associate Professor	NAKAYAMA Ryuichi		
	Specially Appointed Associate Professor	SETO Osamu		
	Lecturer	SUEHIRO Kazuhiko		
Theoretical Nuclear Physics	Professor	KIMURA Masaaki	Quantum many-body problems, nuclear force, unstable nuclei, nucleosynthesis, hadronic matter	Institute for the Advancement of Higher Education
	Lecturer	HORIUCHI Wataru		
	Assistant Professor	Bo Zhou		
Theoretical Astrophysics	Visiting Associate Professor	Elizabeth Jane Tasker	Theoretical astronomy, numerical simulations, galaxy formation, galaxy clusters, supermassive black holes, interstellar matter, star formation, interstellar dust	Inter-field Cooperation with the Japan Aerospace Exploration Agency (JAXA) in the field of spacecraft observation.  Institute for the Advancement of Higher Education
	Lecturer	OKAMOTO Takashi		
	Assistant Professor	Alexander Pettitt		
Planetary and Space Group	Professor	KURAMOTO Kiyoshi	Origin and evolution of planets and satellites, material evolution during planetary system formation, structure and dynamics of Earth and planetary atmospheres, comparative planetology, space exploration and ground-based observation, experimental studies, theory and hierarchical numerical simulation models, applications of information technology	
	Professor	TAKAHASHI Yukihiro		
	Professor	ISHIWATARI Masaki		
	Professor	SATO Mitsuteru		
	Associate Professor	KAMATA Shunichi		
	Specially Appointed Associate Professor	KUBOTA Hisayuki		
	Specially Appointed Associate Professor	KURIHARA Junichi		
	Specially Appointed Assistant Professor	ISHIDA Tetsuro		
	Specially Appointed Assistant Professor	TAKAGI Seiko		

Laboratories	Supervisors		Keywords	Remarks	
Astrophysical Chemistry / Ice and Planetary Science	Professor	KOUCHI Akira	Interstellar molecules, ice dust, amorphous solid water, surface reactions	Retire in March 2022	
	Professor	WATANABE Naoki			
	Associate Professor	KIMURA Yuki			
	Assistant Professor	HIDAKA Hiroshi			
	Assistant Professor	OBA Yasuhiro			
	Specially Appointed Assistant Professor	TSUGE Masashi			
Phase Transition Dynamics	Professor	SAZAKI Gen	Phase transition dynamics, crystal growth, ice, snow, interferometry, advanced optical microscopy, atomic force microscopy		
	Assistant Professor	NAGASHIMA Ken			
	Assistant Professor	MURATA Ken-ichiro			
Information Media Science	Professor	FUSE Izumi	Learning science, learning platforms, open education		
	Assistant Professor	YAMAMOTO Yuichi			
Nuclear Reaction Data Science	Associate Professor	HIRABAYASHI Yoshiharu	Nuclear data, nuclear reactions, evaluation	Information Initiative Center	
	Visiting Professor	FUKAHORI Tokio		Inter-field Cooperation with the Japan Atomic Energy Agency (JAEA) in the field of nuclear data.	
	Visiting Professor	IWAMOTO Nobuyuki			
Spacecraft Observation Group	Visiting Professor	SATO Takehiko	Planetary exploration, infrared astronomy from space, radio astronomy from space	Inter-field Cooperation with the Japan Aerospace Exploration Agency (JAXA) in the field of spacecraft observation.	
	Visiting Associate Professor	MURATA Yasuhiro			
	Visiting Associate Professor	YAMAMURA Issei			

※There is a possibility that the members of supervisors change. Please get the latest information from the website of the Graduate School of Science.