

| Earth and Planetary Sciences Course | | | |
|--|--|--|---|
| Research Group | Supervisor | Research Themes | |
| | | E-mail address | |
| Earth Environmental Systems | 山口 靖 教授 Prof. Yasushi Yamaguchi | Remote sensing-based study, including environmental analysis from local variations in land surface and heat balance, comparison of changes in global vegetation cover and carbon cycle models, geological mapping of the Earth and the Moon, and analysis of geological processes Yasushi * nagoya-u.jp | |
| | 高野 雅夫 教授 Prof. Masao Takano | Designing a sustainable Earth and social system based on the development of small-scale renewable energy technologies, for example, using micro-hydro power, geothermal energy, or woody biomass energy, and application of these technologies to revitalize mountainous areas masao * nagoya-u.jp | |
| | 平野 恭弘 准教授 Assoc. Prof. Yasuhiro Hirano | Eco-physiological study of forest belowground ecosystem (tree roots and forest soil), particularly to clarify the effects of soil acidification and global warming, and the contribution of tree roots to the carbon cycle yhirano * nagoya-u.jp | |
| | Geology and Geobiology | 竹内 誠 教授 Prof. Makoto Takeuchi | Research in the fields of sedimentology, sedimentary petrology, and structural geology to reconstruct the geological history of East Asia, particularly the study of the tectonic evolution of East Asia based on provenance analyses of clastic sedimentary rocks takeuchi * eps.nagoya-u.ac.jp |
| | | 道林 克禎 教授 Prof. Katsuyoshi Michibayashi | <ul style="list-style-type: none"> Structural evolution of crustal and mantle rocks Structure and petrological properties of peridotite and seismic wave anisotropy Rheological properties and microstructure of rocks in a ductile field Mid-ocean ridges, trenches and subduction zones – sea- and land-based approaches michibayashi * nagoya-u.jp |
| | | 氏原 温 Assoc. Prof. Atsushi Ujihara | <ul style="list-style-type: none"> Biostratigraphy and paleoclimate reconstruction based on fossil pteropods during the Cenozoic Era Miocene paleogeography of the Seto Inland Sea ujihara * info.human.nagoya-u.ac.jp |
| 須藤 斎 准教授 Assoc. Prof. Itsuki Suto | | <ul style="list-style-type: none"> Biostratigraphy and paleoenvironmental reconstruction based on fossil diatoms Evolutionary history of marine plankton, coevolution of diatoms and other marine organisms, and relationships with Earth's geological history suto.itsuki * a.mbox.nagoya-u.ac.jp | |
| ハンプレ マーク 准教授 Assoc. Prof. Marc Humblet | Study of modern and fossil coral reef ecosystems; in particular, research on the responses of reef and reef communities to environmental and sea-level changes during the Quaternary humblet.marc * f.mbox.nagoya-u.ac.jp | | |
| 林 誠司 講師 Lecturer Seiji Hayashi | <ul style="list-style-type: none"> Evolution and diversity of mollusks based on morphological and molecular phylogenetic analyses seijih * nagoya-u.jp | | |

| | | |
|---------------------------------------|---|---|
| Geochemistry and Cosmochemistry | 山本 鋼志 教授 Prof. Koshi Yamamoto | <ul style="list-style-type: none"> • Assessment of marine pollution based on geochemical analyses of biological samples • Redox front formation and elemental migration during weathering processes • Origin and sedimentary environments of siliceous sedimentary rocks • Development of new geochemical analysis methods |
| | | yamamoto * eps.nagoya-u.ac.jp |
| | 日高 洋 教授 Prof. Hiroshi Hidaka | <ul style="list-style-type: none"> • Evolution of the primitive solar system based on isotopic analyses of planetary materials • Isotopic study of the interaction between planetary materials and cosmic rays • Development of new methods for detecting natural nuclear reactions based on isotopic chemistry |
| | | hidaka * eps.nagoya-u.ac.jp |
| | 三村 耕一 准教授 Assoc. Prof. Koichi Mimura | <ul style="list-style-type: none"> • Stability of organic molecules at high temperature and high pressure • Experimental study of the behavior of volatiles and their isotopic composition during planetary formation • Origin and evolution of life on the early Earth |
| | | mimura * eps.nagoya-u.ac.jp |
| Earth and Planetary Physics | 平原 靖大 准教授 Assoc. Prof. Yasuhiro Hirahara | Infrared spectroscopic analysis of interstellar molecules and planetary atmospheres, development of new astronomical observation devices, and laboratory study of short-lived molecular species important in cosmological chemistry |
| | | yasu * nagoya-u.jp |
| | 浅原 良浩 准教授 Assoc. Prof. Yoshihiro Asahara | <p>Isotope geochemistry of metallic elements and applications in Earth Science</p> <ul style="list-style-type: none"> • Reconstructions of ocean paleocirculation based on geochemical analyses of marine sediments • Paleoenvironmental reconstructions based on geochemical analyses of sedimentary rocks • Dating and petrogenetic analyses of igneous rocks and ore deposits |
| | | asahara * eps.nagoya-u.ac.jp |
| | 渡邊 誠一郎 教授 Prof. Sei-ichiro Watanabe | Study of the formation of planetary systems, the early evolution of Earth, the origin of life, and application of numerical simulations to investigate the formation and evolution of our solar system, as well as extrasolar planetary systems. |
| | | seicoro * eps.nagoya-u.ac.jp |
| Earth and Planetary Physics | 熊谷 博之 教授 Prof. Hiroyuki Kumagai | <ul style="list-style-type: none"> • Volcano seismicity and mechanisms of volcanic eruptions • Large earthquakes along subduction zones in Asia and Pacific regions • Volcano and earthquake monitoring using seismological methods |
| | | kumagai * eps.nagoya-u.ac.jp |
| | 桂木 洋光 准教授 Assoc. Prof. Hiroaki Katsuragi | Experimental study in the field of non-linear soft matter physics and applications to Earth and Planetary processes |
| | | katsurag * eps.nagoya-u.ac.jp |
| Earth and Planetary Physics | 城野 信一 准教授 Assoc. Prof. Sin-iti Sirono | <ul style="list-style-type: none"> • Numerical simulations of the evolution of matter during planetary formation • Theoretical study of the evolution of small system solar bodies, such as asteroids and comet nuclei |
| | | sirono * eps.nagoya-u.ac.jp |

| | | |
|---|--|--|
| | 諸田 智克 講師 Assist. Prof. Tomokatsu Morota | <ul style="list-style-type: none"> • Study of lunar and planetary evolution based on solar system exploration data • Magmatism and thermal evolution of moons and planets • Process of celestial collision and evolution of solar system dynamics |
| | | morota * eps.nagoya-u.ac.jp |
| Earth and Planetary Dynamics | 山岡 耕春 教授 Prof. Koshun Yamaoka | <ul style="list-style-type: none"> • Study of the origin of earthquakes and volcanic activity monitoring • Statistical analysis of crustal deformation and seismic activity |
| | | kyamaoka * seis.nagoya-u.ac.jp |
| | 鷺谷 威 教授 Prof. Takeshi Sagiya | <ul style="list-style-type: none"> • Theoretical and observational study of crustal deformation processes • Research on earthquake occurrence cycles and fault slip behavior • Study of seismicity, volcanism and tectonics in the Japanese Archipelago based on crustal deformation • Crustal activity prediction based on numerical simulations and analyses of observational data |
| | | sagiya * nagoya-u.jp |
| | 渡辺 俊樹 教授 Prof. Toshiki Watanabe | <ul style="list-style-type: none"> • Visualization and monitoring of underground structures and physical properties using geophysical exploration methods • Study of earthquakes and volcanoes using seismic wave field analysis • Application of geophysical exploration to energy, environmental and disaster mitigation studies |
| | | watanabe * seis.nagoya-u.ac.jp |
| | 田所 敬一 准教授 Assoc. Prof. Keiichi Tadokoro | <ul style="list-style-type: none"> • Development of ocean bottom crustal movement observation systems • Study of the structure and evolution of fault fracture zones based on seismological data • Study of crustal heterogeneity based on seismic wave analysis |
| | | tad * seis.nagoya-u.ac.jp |
| | 山中 佳子 准教授 Assoc. Prof. Yoshiko Yamanaka | <ul style="list-style-type: none"> • Research on earthquake occurrence mechanism (hypocenter, asperity map, tectonics) • Study of volcanic phenomena based on seismic wave analysis |
| | | sanchu * seis.nagoya-u.ac.jp |
| 橋本 千尋 准教授 Assoc. Prof. Chihiro Hashimoto | Theoretical study of crustal activities due to tectonic plate interactions, particularly themes related to physics of earthquake generation cycles and tectonic activities in plate boundary zones, numerical simulations of crustal activities in the Japanese Archipelago | |
| | hashi * seis.nagoya-u.ac.jp | |
| 伊藤 武男 准教授 Assoc. Prof. Takeo Ito | <ul style="list-style-type: none"> • Research on crustal activity based on numerical simulations • Study of the ionosphere, Earth and ocean tides based on GNSS observations • Theoretical and observational study of earthquake occurrence cycles based on crustal deformation data | |
| | takeo_ito * nagoya-u.jp | |
| 寺川 寿子 講師 Lecturer Toshiko Terakawa | <p>Research on earthquake physics</p> <ul style="list-style-type: none"> • Theoretical study of tectonic loading process caused by plate motion • Tectonic stress field in the crust • Roles of pore fluid pressures in earthquake generation • Interaction between volcanic activity and seismicity | |
| | terakawa * seis.nagoya-u.ac.jp | |

| | | |
|--------------------------------|--|---|
| Chronology and Natural History | 吉田 英一 教授 Prof. Hidekazu Yoshida | Research on the circulation/migration of material in the Earth's crust and related rock weathering, particularly dissolution and precipitation processes linked to interactions between rock minerals and groundwater, the formation of secondary minerals, and environmental and applied geology related to material migration in rock formations and fault zones dora * num.nagoya-u.ac.jp |
| | 大路 樹生 教授 Prof. Tatsuo Oji | Research in the fields of evolutionary paleontology and paleoecology based on morphological analyses of fossil and living marine organisms, particularly the predator-prey relationships in echinoderms, and the early Cambrian sudden diversification of multicellular animals (Cambrian Explosion) oji * num.nagoya-u.ac.jp |
| | 北川 浩之 教授 Prof. Hiroyuki Kitagawa | Analyses of cosmogenic nuclides (e.g., ¹⁰ Be, ¹⁴ C, ²⁶ Al, ³⁶ Cl) for age determination of geological and archeological samples, and for gaining insight into geological processes and environmental changes, with a particular focus on lake sediments and archeological sites in Asia hiroyuki.kitagawa * nagoya-u.jp |
| | 南 雅代 准教授 Assoc. Prof. Masayo Minami | <ul style="list-style-type: none"> ¹⁴C application studies: ¹⁴C dating of human bones and charred materials excavated from archeological sites, development of new methods for high-accuracy ¹⁴C measurements Other isotopic studies: nationwide Sr isotopic ratio mapping, paleodietary analyses based on C, N and Sr isotopic ratios in bones minami * nendai.nagoya-u.ac.jp |
| | 加藤 丈典 准教授 Assoc. Prof. Takenori Kato | <ul style="list-style-type: none"> CHIME dating and its applications Electron and X-ray spectroscopic analysis of rock minerals kato * nendai.nagoya-u.ac.jp |
| | 束田 和弘 准教授 Assoc. Prof. Kazuhiro Tsukada | Field-based investigation of the paleogeographic evolution of Gondwana and the formation of the Eurasian continent with geological field surveys conducted in Mongolia, Russia, Antarctica, and Japan. tsukada * num.nagoya-u.ac.jp |
| | 西田 佐知子 准教授 Assoc. Prof. Sachiko Nishida | Taxonomy and ecology of plants, particularly ecological study of closely related plants, interactions of plant organs and animals, and taxonomic study of tropical Lauraceae nishida * num.nagoya-u.ac.jp |
| | 門脇 誠二 講師 Lecturer Seiji Kadowaki | Archeological study of human evolution and the origin of agriculture based on field surveys of archeological sites, mainly in West Asia, analyses of the morphology of artifacts, such as stone tools, and of production techniques, as well as DNA analysis of animal bones kadowaki * num.nagoya-u.ac.jp |
| | 藤原 慎一 講師 Lecturer Shinichi Fujiwara | Research on the relationships between musculoskeletal morphologies of living animals and their locomotor abilities, and application in paleontology for the paleoecological study of extinct animals sifjwr * num.nagoya-u.ac.jp |
| | Ecology | 夏原 由博 教授 Prof. Yoshihiro Natuhara |

| Hydrospheric-Atmospheric Sciences Course | | |
|--|-------------------------------------|--|
| Research Group | Supervisor | Research Themes |
| | | E-mail address |
| Global Environmental Variation | 篠田 雅人 教授 Prof. Masato Shinoda | Areas of expertise: climatology, drought science, arid land research. Research themes: interactions between climate and terrestrial ecosystems through water, carbon cycle, and energy; field experiment on drought in Eurasian grasslands; development of early warning systems for dryland disasters; yellow dust events and desertification; long-distance migration of wildlife and climate change, changes in vegetation cover and snow cover; scientific verification of nomadic knowledge (why has nomadism persisted for thousands of years?) |
| | | shinoda.masato * g.mbox.nagoya-u.ac.jp |
| Climate Science | 藤田 耕史 Prof. Koji Fujita | Study of glacier fluctuations in mountainous regions of Asia, such as Himalaya and Tibet, based on observations of present-day conditions, numerical models of glacier dynamics, and analyses of ice cores |
| | | cozy * nagoya-u.jp |
| Global Water Cycle | Oceanography | 石坂 丞二 教授 Prof. Joji Ishizaka |
| | Atmospheric Chemistry | 持田 陸宏 教授 Prof. Michihiro Mochida |
| | | Research on the dynamics of phytoplankton, the primary producers of the oceans, using satellite data and ship observations. Phytoplankton plays an important role in material circulation and biological production and is an indicator of environmental and climate change caused by human activities. Research is conducted on various spatial scales and in various marine environments, such as inner bay areas, the East China Sea, the Japan Sea, and the open ocean. |
| | | jishizaka * nagoya-u.jp |
| | | Research on the role of atmospheric particulates (aerosols) in cloud formation based on field observations and lab experiments; in particular, and taking into account the influence of atmospheric transport, the study of the relationship between aerosol properties and chemical composition, and the atmospheric reactions leading to the formation and transformation of aerosols. Aim: understanding the role of aerosols in the hydrological circulation and their impact on air quality and climate. |
| | | mochida * isee.nagoya-u.ac.jp |

Note:

To send an email, please change * (asterisk) to @