令和 5 年度　第 45 回　大学院セミナー

令和 5 年 9 月 12 日

分 野 名 Area of Research (責任者名)(内線)	放射線生物・防護学　分野 責任者名(　横山　須美　)　　内線(7162)
演　　題 Title	第 181 回原研研究集会 GENKEN research seminar 「 Space radiation dosimetry and its exposure risk reduction」
講 師 等 Presenter	National Institutes for Quantum Science and Technology (QST) Dr. Satoshi Kodaira
概要 Abstract	Human space activity is expected to extend to the Moon, Mars and deep space in the next few decades. One of the major concerns of living in space is the exposure to radiation. The major radiation source is galactic cosmic ray (GCR), which consists of various energetic protons and heavy ions. Low-Earth orbits (LEO), where current space activities in the International Space Station (ISS) are ongoing, are partially protected from space radiation by geomagnetic fields. Future missions to the Moon, Mars and deep space will face the challenge of high radiation risks because of the small magnetic fields and long mission terms. The high linear energy transfer (LET) and biological effects of the high charge and energy (HZE) particles from He to Fe nuclei significantly contribute to the radiation dose. The measurement of LET is essential to assess the dose equivalent in space. The strategic countermeasure against space radiation using shielding materials is required as well as radiation dosimetry. Passive shielding is an approach to absorb relatively low energy particles and break up HZE particles into lighter particles in the shielding material, resulting in dose reduction. In this talk, I will overview space radiation exposure and introduce our current research activity on its dosimetry and exposure risk reduction.
開 催 日 時 Date and Time	令和 5 年　10　月 25　日（水） 17：30　～　18：30
開 催 方 法 Online/Face to face	Zoom
備　　考 Notes	受講を希望する場合は、ID・パスワードをお教えしますので、必ずご連絡ください。（内線 7162 or Email: sumi0704@nagasaki-u.ac.jp） If you would like to participate in this seminar and need Zoom ID and Password, please contact sumi0704@nagasaki-u.ac.jp.

□先端医療科学特論（基礎編）　□先端医療科学特論（臨床編）
□先端新興感染症病態制御学特論　■先端放射線医療科学特論
□日本語（Japanese）　■英語（English）
□対面（Face to face）　■オンライン(Online)