

第141回

附属社会創造数学センター主催
学術変革領域研究(A)「マルチモデルECM」共催

HMMCセミナー

- Date :** 2023年7月20日(木) 16:30~18:00
- Speaker :** EOM, Junyong (北海道大学電子科学研究所)
- Place :** 北海道大学 電子科学研究所
中央キャンパス総合研究棟2号館5階 講義室
- Title :** Local analysis for locating a single point target in time-domain fluorescence diffuse optical tomography

Abstract: The time-domain fluorescence diffuse optical tomography (FDOT) problem is to recover the distribution of fluorophores in biological tissue from the time-domain measurement on the boundary. The measurement is conducted by several pairs (S-D pairs) of a point source and a point detector. In this talk, we identify the location of the fluorophore over a point, refer as a point target. We first express a solution for the forward problem in a dimensionless form and consider its asymptotic behavior when the point target is far from the boundary. Based on the asymptotic behavior, we make a numerical inversion scheme for locating a single point target and further discuss about locating well-separated multiple point targets. This is a collaboration work with G. Nakamura (Hokkaido Univ.), G. Nishimura (Hokkaido Univ.) and C. Sun (Nanjing Univ. of Aeronautics and Astronautics).

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※換気のため一部窓を開けて開催します。体温調節可能な服装でお越しください。



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