



52nd RAP Seminar

The 52nd Seminar on RIKEN Center for Advanced Photonics

Language: Japanese

Date: **April 13(Fri) 16:00 - 17:00, 2018**

Location: **W319, 3F, Cooperation Center, Wako Campus, RIKEN**

(理研 和光キャンパス 研究交流棟 3階会議室 W319)

Title: **Sparse Modeling: Basic Concept and Applications to Signal and Image Processing**

スパースモデリング：基本概念と信号画像処理への応用

Speaker: **Prof. Masahiro YUKAWA**

Department of Electronics and Electrical Engineering
Keio University

湯川 正裕

(慶應義塾大学理工学部 電子工学科 准教授)

Sparseness has been studied in a variety of engineering/scientific areas including statistics, signal processing, machine learning, information theory, numerical analysis, to name a few. Despite its theoretical significance, its practical usefulness is based on the fact that many signals/data, both in nature and art, are sparse by themselves or have sparse representations by using some appropriate basis (or "dictionary" more in general). In my talk, the basic concept of sparsity-aware signal processing will be introduced, and some popular algorithms such as lasso, LARS, and operator splitting will be presented. Some applications to image processing will also be covered, and "low-rankness", which is related to sparseness, will be introduced.

Contact: rap-seminar_contact@riken.jp (ext.91-8532)