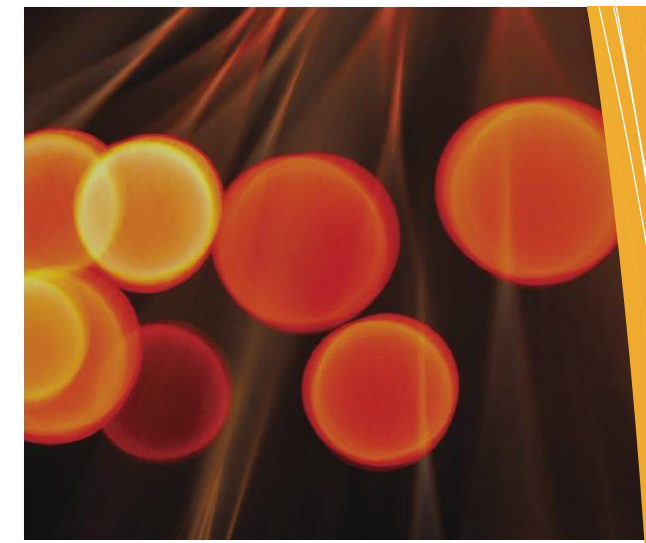


本講演会は大学院先端セミナーとして認定されています

講演会のご案内



日時：平成 25 年 9 月 27 日（金） 15:00 ~ 16:00

場所：医学部棟 8 階多目的室

講師：Yefeng Zheng, Ph.D Senior Staff Scientist Siemens Corporate Research, US

講演内容：Marginal Space Learning for Efficient Detection and Segmentation of 2D/3D Anatomical Structures in Medical Images

Abstract:

Recently, we proposed marginal space learning (MSL) as a generic approach for automatic detection and segmentation of 2D/3D anatomical structures in many medical imaging modalities. To accurately localize a 3D object, we need to estimate nine pose parameters (three for position, three for orientation, and three for anisotropic scaling). Instead of exhaustively searching the original nine-dimensional pose parameter space using a monolithic pose detector, we split the problem into three steps: position-estimation, position-orientation estimation, and position-orientation-scale estimation. Only low-dimensional marginal spaces are searched in MSL to improve the detection speed. In this talk, I will present MSL in detail, followed by some recent developments, e.g., constrained MSL, MSL for nonrigid object detection/segmentation, and hierarchical MSL. Using the proposed method, the pose of an anatomical structure can be estimated accurately in a fraction of a second in a big 3D medical image volume. The full segmentation of an organ normally takes only a couple of seconds.



問合せ先：知能イメージ情報分野
内線（6513）