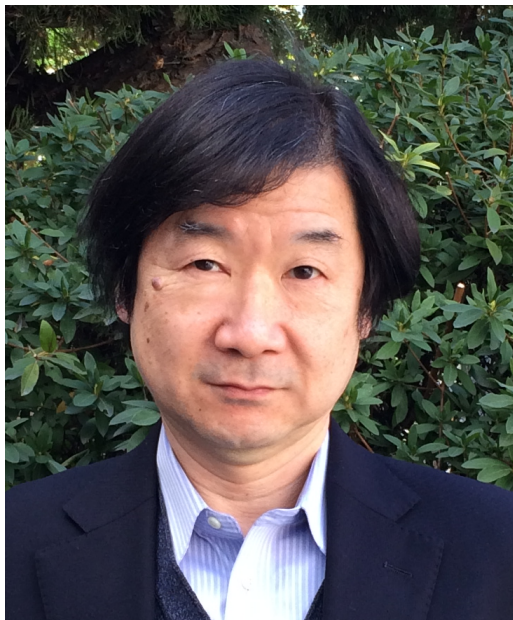


# KMI Colloquium

## Dark baryons in the Universe and DIOS project



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Wednesday, 28th Jan, 17:00-  
KMI Science Symposia (ES635)

### Abstract:

More than half of baryons in the local universe remain unidentified and are expected to distribute along large-scale filaments in the form of warm-hot intergalactic medium (WHIM). The detection and characterization of WHIM will bring us rich information about the structure formation and chemical/thermal evolution of the universe. We propose to survey WHIM with a small satellite DIOS (Diffuse Intergalactic Oxygen Surveyor), aiming for launch around 2020. DIOS will map the WHIM structure with high-resolution X-ray spectroscopy of redshifted emission lines from OVII and OVIII ions. Superior energy resolution of microcalorimeters combined with a very wide field of view will also enable us to study gas dynamics of cosmic plasmas over a wide range of spatial scales.

