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*IGPAS 講義の一環として開催しますので、英語での講演になります。

日時: 2025 年 6 月 27 日（金）16:20 – 17:50

場所: Science Complex Building B, Room 745

(理学合同 B 棟 745 室（大学院講義室 I））

講師: Professor Yasushi SHIBUTA（澁田靖 教授）

Department of Materials Engineering, The University of Tokyo

題目: "Prediction of microstructure formation of metallic materials
based on large-scale simulation and data-driven methods"

要旨:

Recent dramatic improvements in the computer environment have greatly expanded the spatial scales that can be handled by numerical simulations. The speakers have achieved the world's first ultra-large-scale molecular dynamics (MD) simulations of microstructures formation of metallic materials with more than 10 billion atoms. Recently, they have proposed new materials-DX methodologies, such as learning from large-scale MD data with a deep generative model to predict new material microstructures, and data assimilation that fuses experimental data with material simulations. In this presentation, these latest research cases will be focused on.