Distinguished Lecture in Materials

Emerging Applications in Materials Science and Advanced Manufacturing at Lawrence Livermore National Laboratory

April 28, 2022 | 2:00PM | Marcus Nanotechnology Building | 1117-1118

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Abstract: The demanding and ever-evolving missions of the Department of Energy call for increased responsiveness to the mission 'pull' while staying on the cutting edge of scientific advancements and anticipating programmatic needs through a technological 'push.' In this talk I will give an overview of activities in the Materials Science Division at Lawrence Livermore National laboratory and describe how these efforts feed into our latest developments in advanced manufacturing. Along with highlights of work in polymer chemistry, actinide science and energetic materials, I will focus on work involving the materials science of metal 3D printing which represents one of many growth areas of the lab. Prepared by LLNL under Contract DE-AC52-07NA27344.

Bio: Manyalibo Matthews is the Division Leader for the Materials Science Division within the Physical and Life Sciences Directorate. His expertise includes laser materials processing, laser-matter interaction science, process optimization of advanced manufacturing, and high-speed in situ characterization methods.

Prior to his current role, Dr. Matthews served as Group Leader in the Materials Science Division and Program Group Leader for the Laser Material Interaction Group in the National Ignition Facility and Photon Science



Before joining the Laboratory, Dr. Matthews was a member of the Technical Staff at Bell Laboratories, focusing on optical microspectroscopy and managing projects aimed at developing Passive Optical Network prototypes.

Dr. Matthews is currently a co-organizer for the Materials Research Society and Materials Science and Technology symposiums, a member of the Academic Advisory Board at Norfolk State University, and a Fellow of the Optical Society of America.



Georgia Tech Institute for Materials

Host: Aaron Stebner, Associate Professor (ME)