



UNIVERSITY OF GUAM
COLLEGE OF NATURAL
& APPLIED SCIENCES

Hydrodynamics: The Flow Tale Series

MATH AND DATA SCIENCE LECTURE

Physical Universality in Biological Diversity: Data Insights from the Bank of Swimming Organisms at the Micron Scale (BOSO-Micro)

4 p.m. | Tuesday, Aug. 20
Science Bldg. Room 101, University of Guam



FEATURING VISITING
FULBRIGHT SCHOLAR
DR. MACIEJ LISICKI

Dr. Lisicki presents a biophysical survey of the available experimental data produced to date on the characteristics of motile behavior in unicellular microswimmers. He assembles literature empirical data on the motility of four broad categories of organisms: bacteria (and archaea), flagellated eukaryotes, spermatozoa and ciliates, gathering the biological, morphological, kinematic and dynamical parameters. He organizes the data using the established fluid mechanics principles for propulsion at low Reynolds number, revealing insights from data into the propulsion and drag of microscale swimming cells.