Probing single- and multi-phase flow at the pore level

SUIJIT DATTA, Department of Physics, Harvard University, AMBER KRUMMEL, Department of Chemistry, Colorado State University, DAVID WEITZ, Department of Physics, Harvard University — We use a new experimental technique to study 3D flow behavior in a porous medium in situ with high spatiotemporal resolution. At the multi-pore level, we probe the fluid configurations resulting from two-phase flow conditions imposed upon the system and correlate these to bulk flow measurements.