Hari Manoharan

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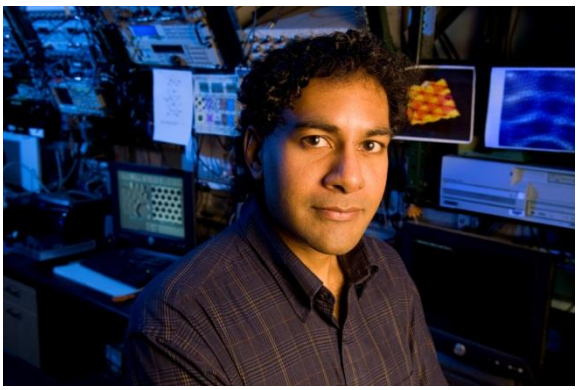

Prof. Dr. Hari Manoharan will present recent progress in his research where he seeks to apply the "bottom-up" approach of atomic and molecular manipulation to a variety of outstanding problems in science and technology. The effort is interdisciplinary in nature, centering on physics and engineering but involving ideas, techniques, and conundrums from other fields such as chemistry, biology, materials science, and information technology. The primary experimental apparatus for these investigations are custom-built low-temperature scanning probe microscopes capable of both studying and controlling matter at atomic length scales.

Hari Manoharan graduated with a B.S.E. and a M.A. from Princeton University and with a M.S. from Stanford. He stayed at Princeton for his PhD, before in 1998, he joined the IBM Almaden Research Center as research scientist. In 2001, he was appointed assistant professor of electrical engineering and of material science and engineering at Stanford University. Currently, he holds a position as associate professor of physics at Stanford and functions as director of undergraduate studies in the physics department.

Manoharan's research focuses on the "bottom-up" approach of atomic and molecular manipulation. He received several honors and awards like the IBM Invention Achievement Award (2000), the IBM TEAM Patent Award (2000), the Research Corporation Research Innovation Award (2002), the ONR Young Investigator Award (2002), the NSF CAREER Award (2002), the Alfred P. Sloan Fellow (2002-2006), the Presidential Early Career Award for Scientists and Engineers (2004 PECASE), and the Stanford Terman Fellowship (2008-2010).