Distributed Computing and the Multicore Revolution

Maurice Herlihy

Computer Science Department
Brown University Providence, RI 02912, USA

Abstract. Computer architecture is undergoing a sea-change: very soon, nearly all computers will be "multicore" architectures in which multiple processors reside on a single chip. It is widely recognized that the switch to multicore presents a daunting challenge in areas that range all the way from architecture to software engineering, to raw system performance.