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Ignatios Vakalis* (ivakalis@calpoly.edu), CSC Department, CalPoly and State University,
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Computational science and Engineering (CSE) is a rapidly growing interdisciplinary field that integrates computing, mathematical modeling, and visualization to solve complex problems in the physical, natural, behavioral and social sciences as well as engineering and finance. The SIAM Working Group on CSE Undergraduate was charged to report on the current status of CSE undergraduate education. The major objectives of the comprehensive report are to present the scope of CSE as an undergraduate discipline, to examine some of different models for CSE undergraduate programs, and to delineate the needs that undergraduate CSE preparation must address for a successful transition to industry or graduate programs. The talk will present the major findings of the SIAM report along with exemplary undergraduate CSE curricula. In addition, the presentation will include a summary of key components of an inter-institutional undergraduate program in computational science that implements a competency-based minor for majors in science, mathematics, and engineering. (Received September 05, 2008)