

# Manycores in the Future

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**Abstract.** The change from single core to multicore processors is expected to continue, taking us to manycore chips (64 processors) and beyond. Cores are more numerous, but not faster. They also may be less reliable. Chip-level parallelism raises important questions about architecture, software, algorithms, and applications. I'll consider the directions in which the architecture may be headed, and look at the impact on parallel programming and scientific computing.