



FIGURE C.8.15 Performance measurements of the N-body application on a GeForce 8800 GTX and a GeForce 9600. The 8800 has 128 stream processors at 1.35 GHz, while the 9600 has 64 at 0.80 GHz (about 30% of the 8800). The peak performance is 242 GFLOPS. For a GPU with more processors, the problem needs to be bigger to achieve full performance (the 9600 peak is around 2048 bodies, while the 8800 doesn't reach its peak until 16,384 bodies). For small N, more than one thread per body can significantly improve performance, but eventually incurs a performance penalty as N grows.