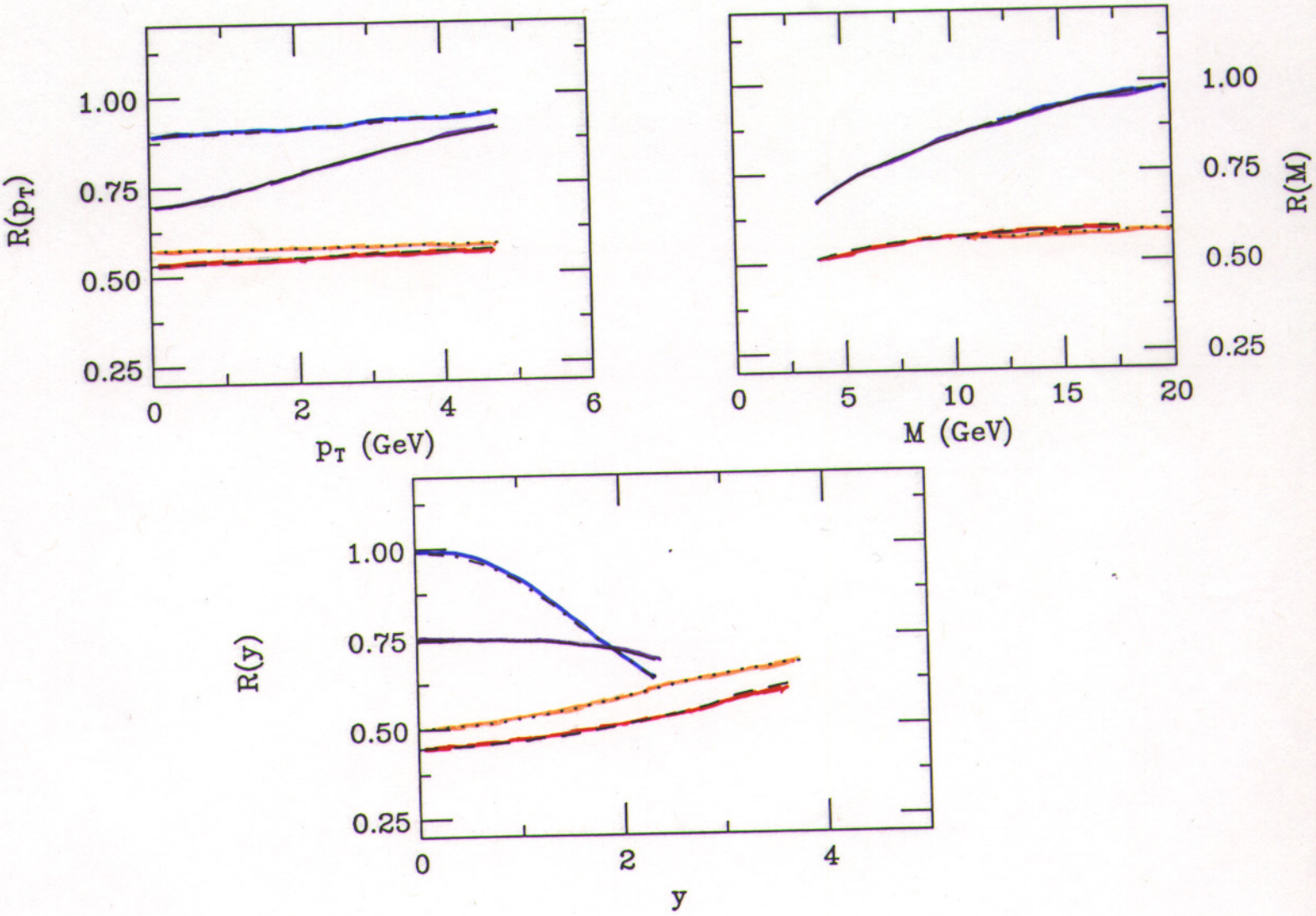HPC shadowing