particles	time by tree algorithm (ms)			time by direct summation (ms)		
	max	min	average	max	min	average
1e4	29	24	27.4	577	453	505.5
5e4	170	156	160.4	11840	11060	11372.8
10e4	385	353	362.8	48518	44058	45929.4
15e4	587	571	577.4	104083	100843	101882.8
20e4	858	674	772.8	188105	180105	182944.8