- We are doing md simulation with PBC of a 2d system. We try to verify our result using various benchmark. Configuration data is given in file: `config_benchmark3.txt`

Antik da Result:

density = 1.2
N = 100
r_c = 2.5
particle type A

```
double force_check = 0.e0;
            for(int i=0;i<N;i++) force_check+=(sphere[i].Fx*sphere[i].Fx)+(sphere[i].Fy*sphere[i].Fy);
            force_check = sqrt(force_check);
            printf("%.16lf\n",force_check);
```

force_check = 0.0000000036204816

My Result:

```
Arrays are allocated.
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Initial force given to system.
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Force Disbalence: 0.0000000036204378
arnab@arnab-phys:~/Project_dp1/NVE_PBC_2d_basic$
```

```
arnab@arnab-phys:~/Project_dp1/NVE_PBC_2d_basic$ gcc md_p
arnab@arnab-phys:~/Project_dp1/NVE_PBC_2d_basic$ ./a.out
Arrays are allocated.
----------------------
Initial force given to system.
-----------------------------------
Force Disbalence: 0.0000000036203637

arnab@arnab-phys:~/Project_dp1/NVE_PBC_2d_basic$
```

- dt check has done in `test_variance.py` file.