

# system-2025-05-20-100954-CL-0.5

## System parameters

- Packing fraction: 0.5
- Cross-Linker Concentration: 0.5
- Number of particles: 1500
- Temperature: 0.05
- Damp: 0.1
- Max deformation per cycle: 10

## Numeric parameters

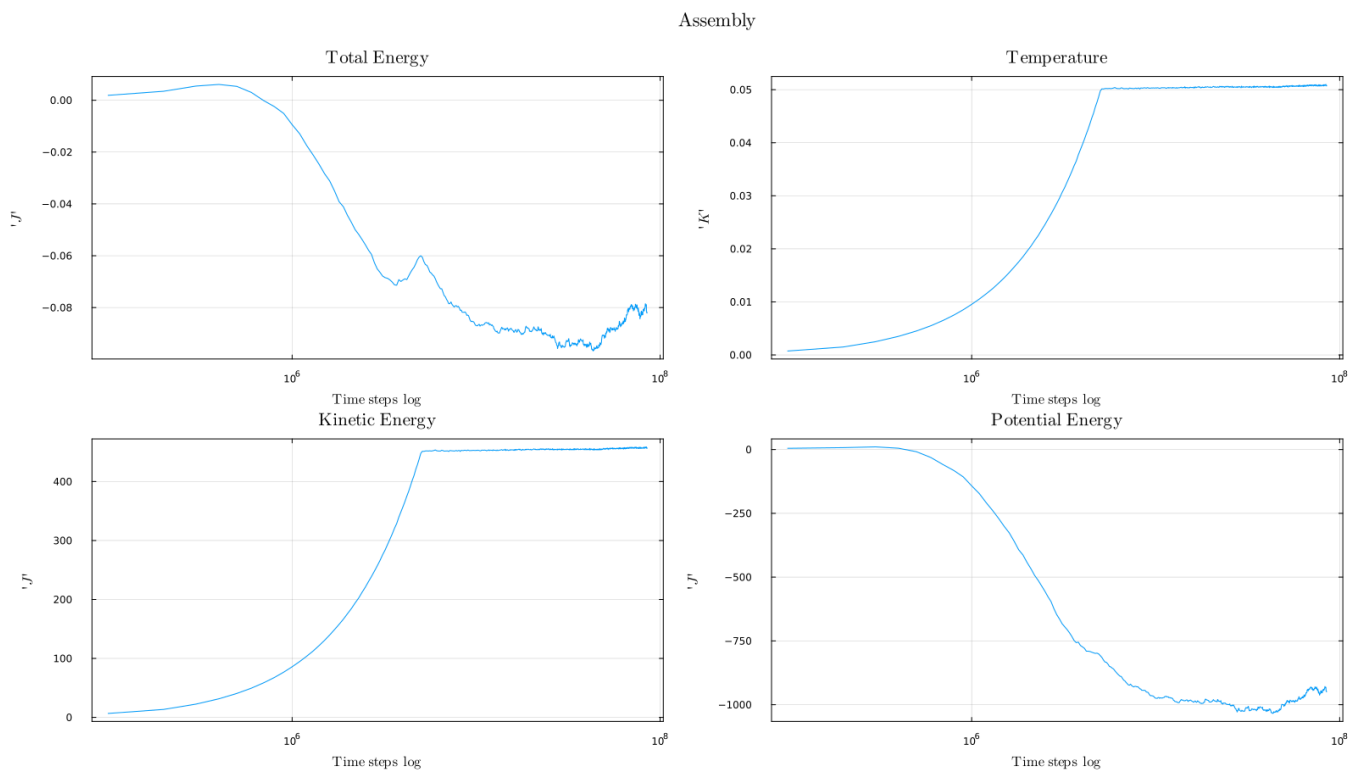
- Time step: 0.001 [tau]
- Number of time steps in heating process: 500000
- Number of time steps in isothermal process: 8000000

## Derived values from parameters

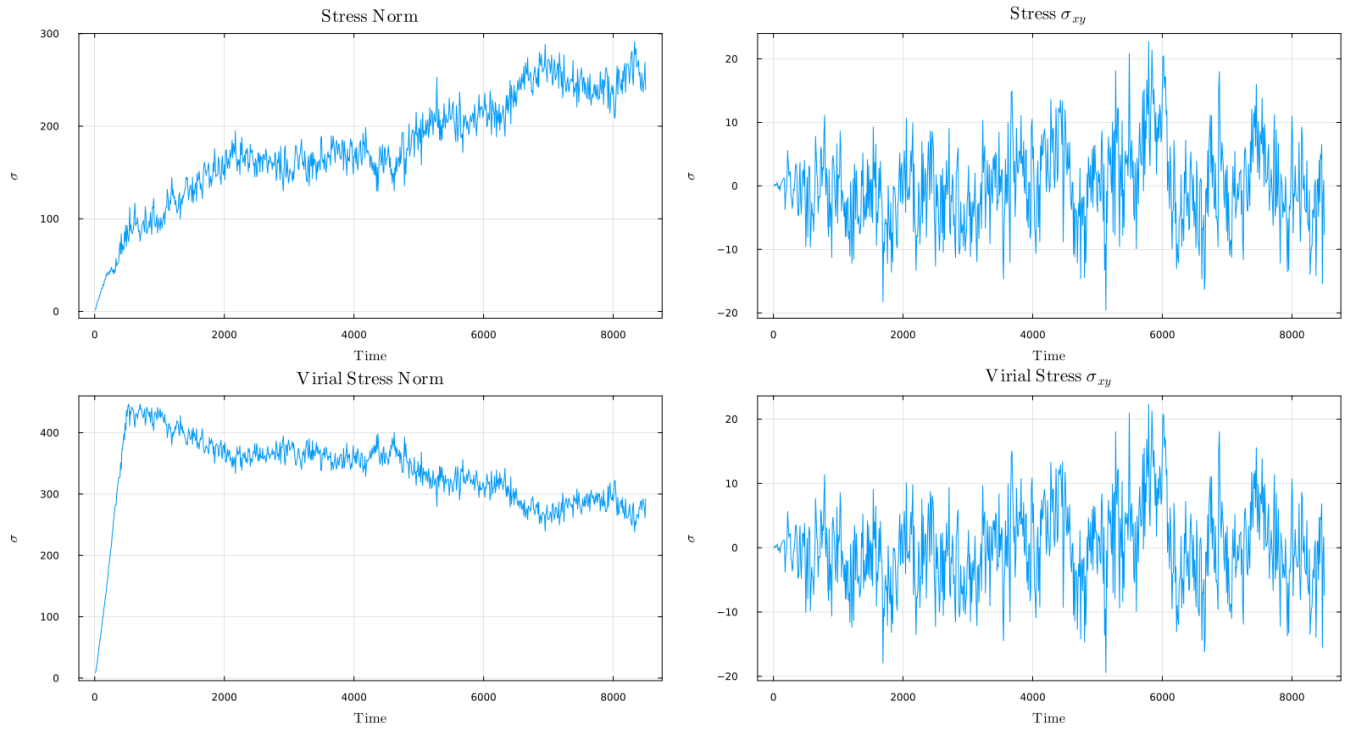
## Save parameters

- Save every 1000000 time steps for dumps files
- Save every 10000 time steps for fix files
- Save every 10000 time steps for Stress fix files

## Assembly graphs



## Assembly Stress and Virial Stress



## Shear parameters

### Shear rate 0.005

Max-strain: 10

N\_def: 200000

time-step: 0.001

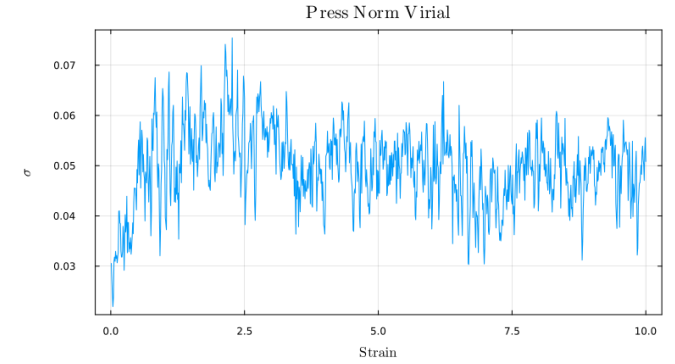
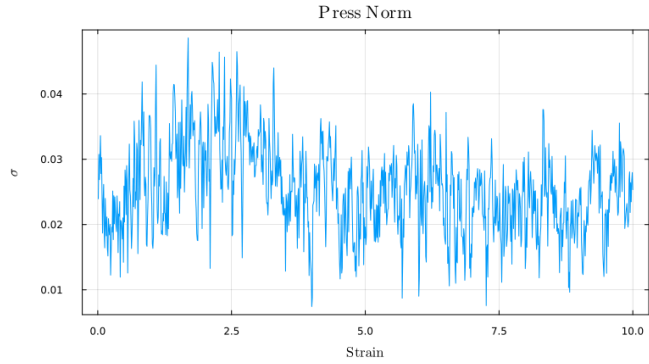
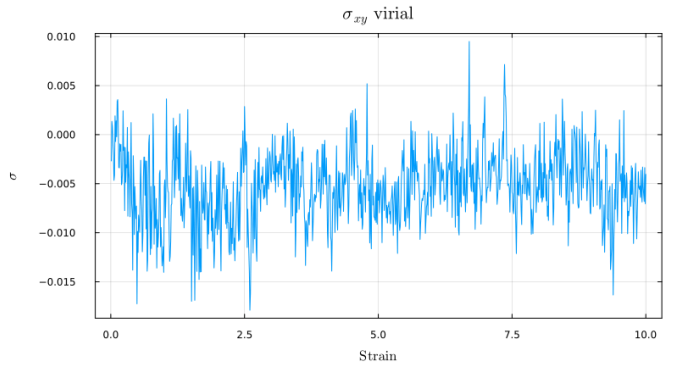
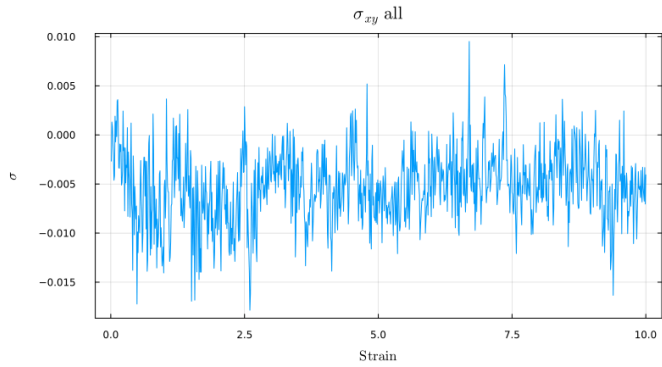
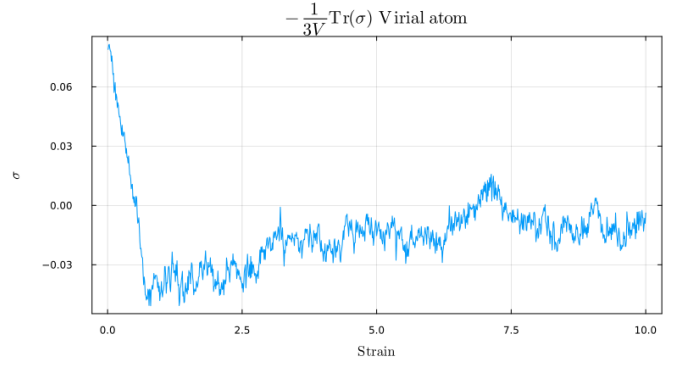
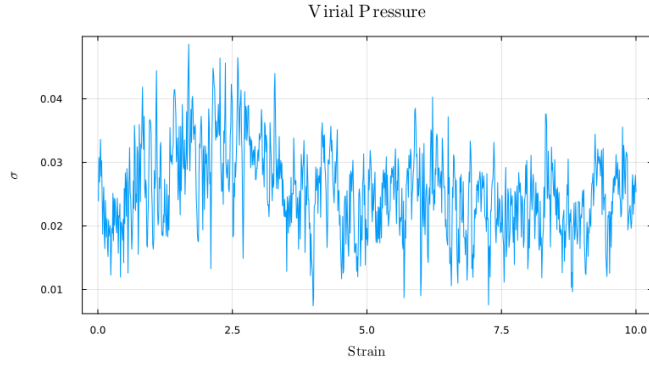
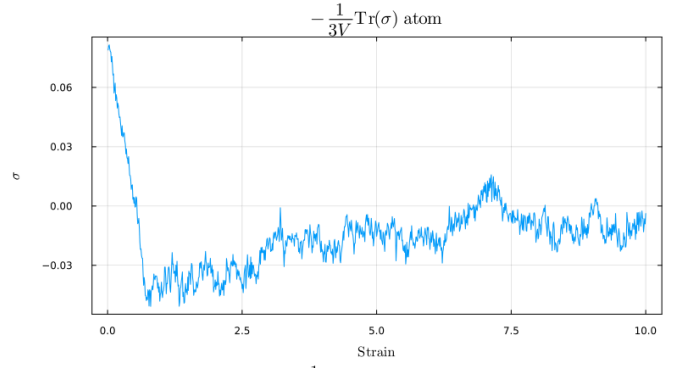
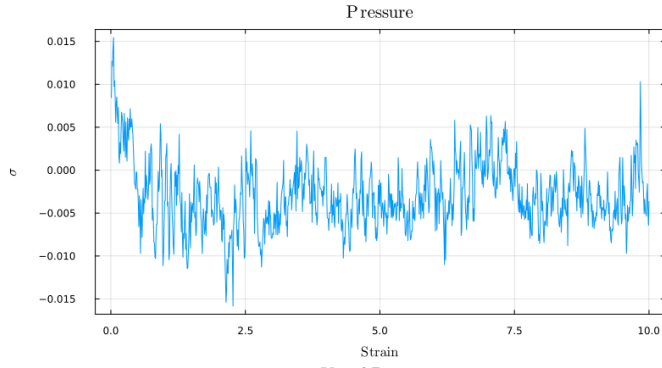
save-dump: 20000

save-fix: 10000

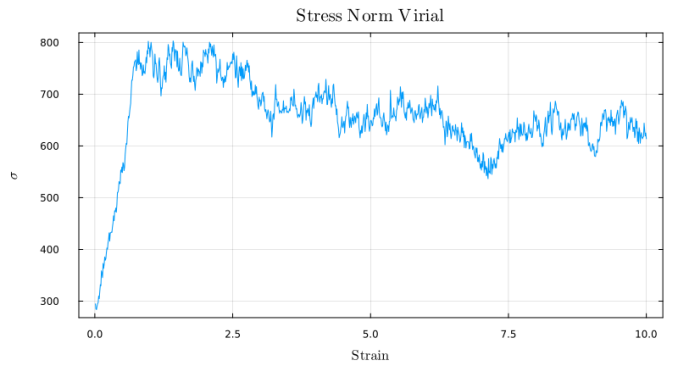
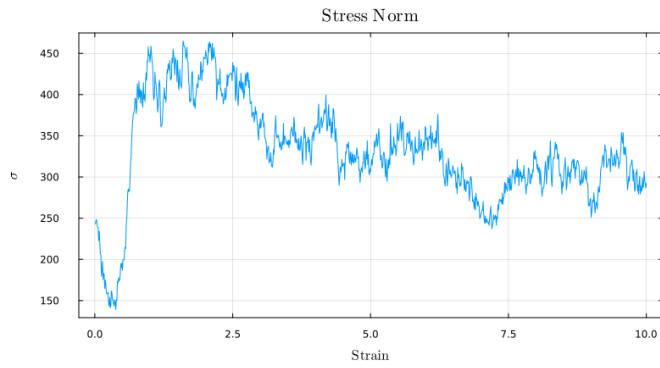
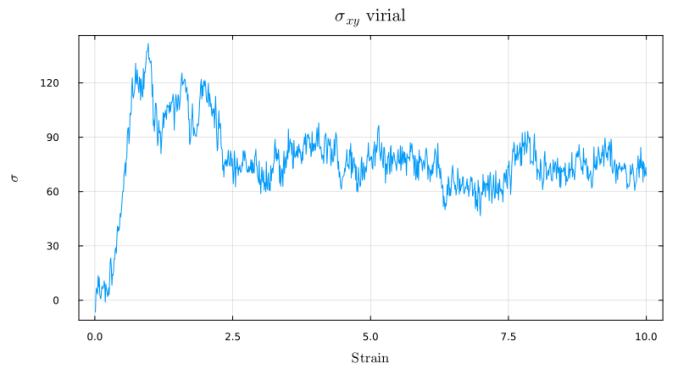
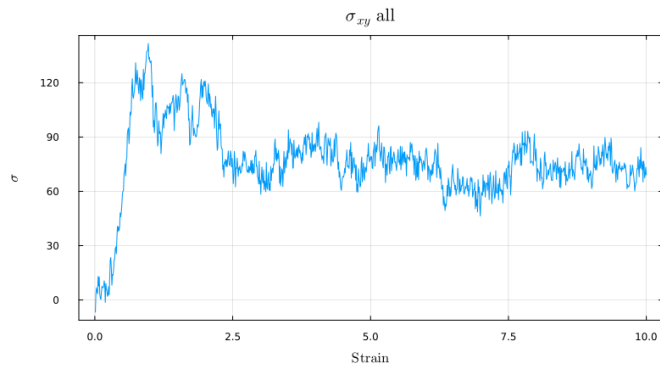
save-stress 2000

## Figures

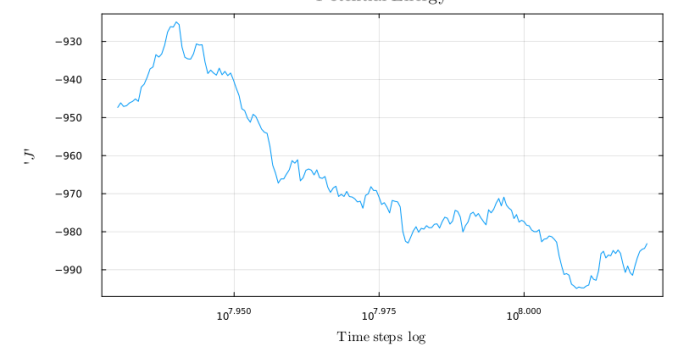
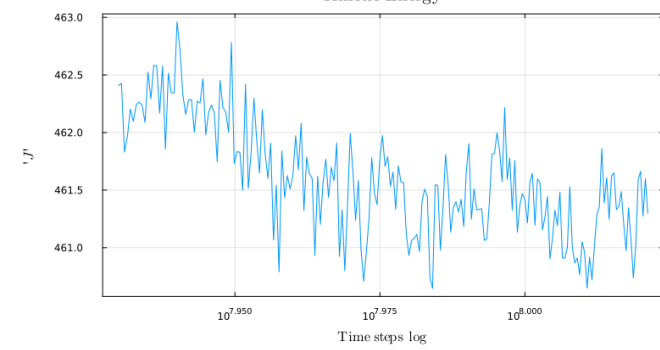
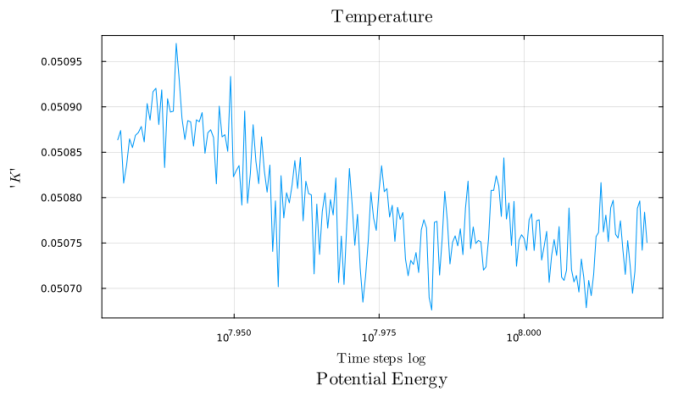
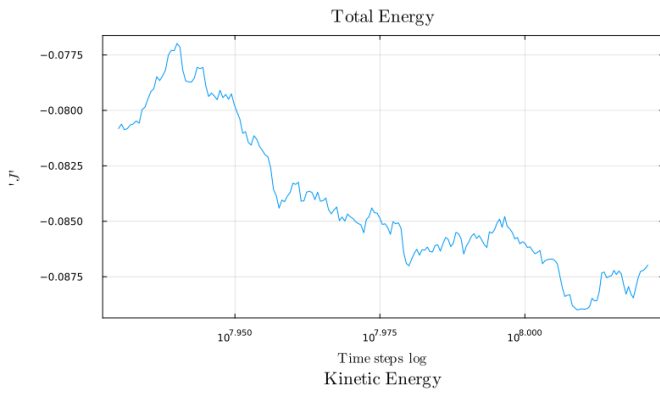
Comparison of compute pressure with compute stress – atom



## Stress Atom



## Shear



## Shear Rate 0.007

Max-strain: 10

N\_def: 142857

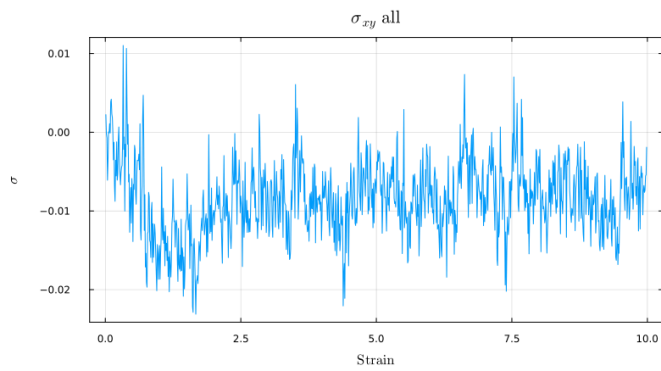
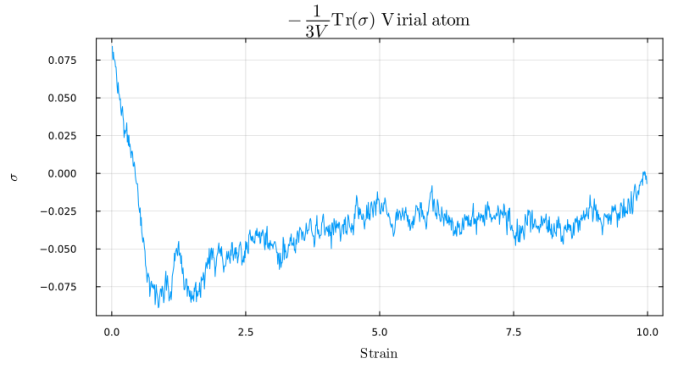
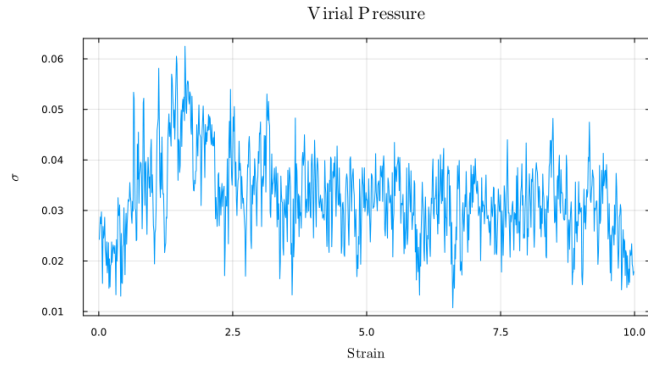
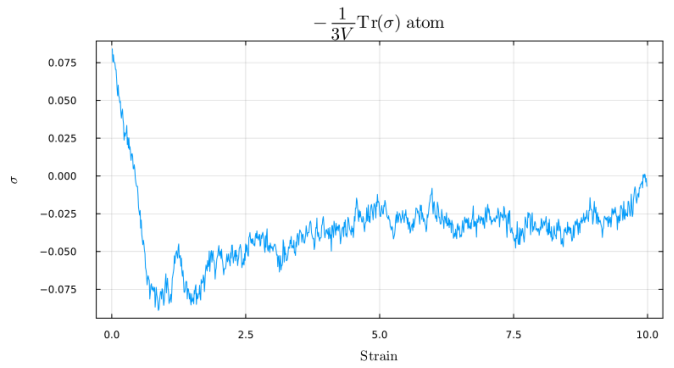
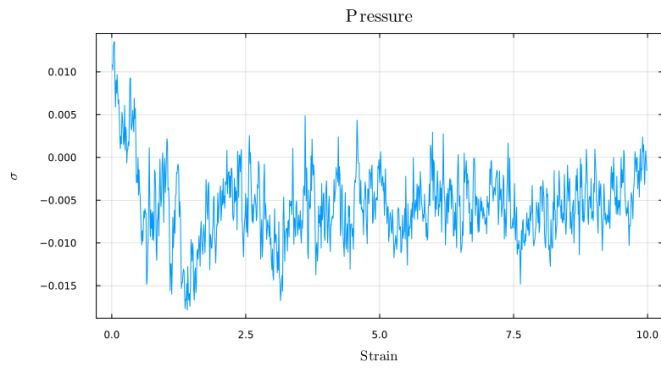
time-step: 0.001

save-dump: 14285

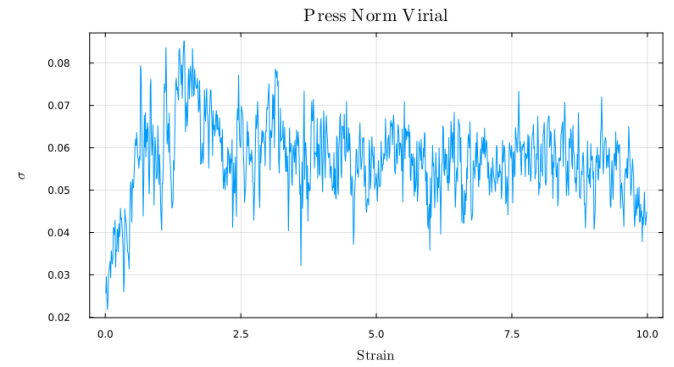
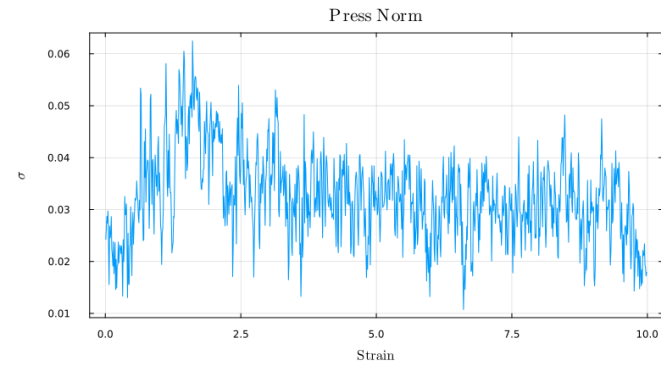
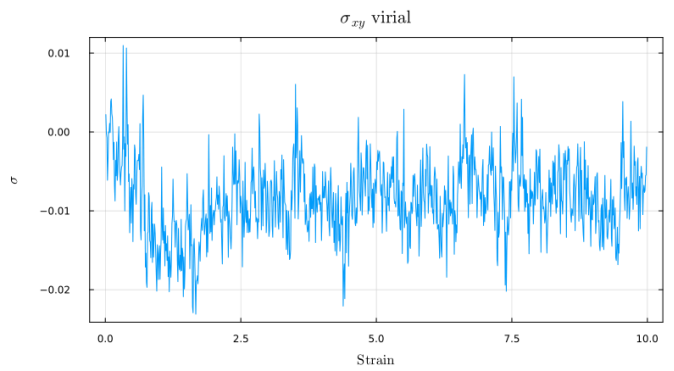
save-fix: 10000

save-stress 1428

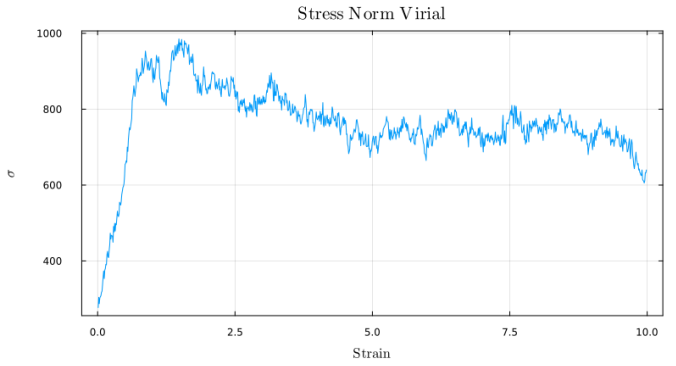
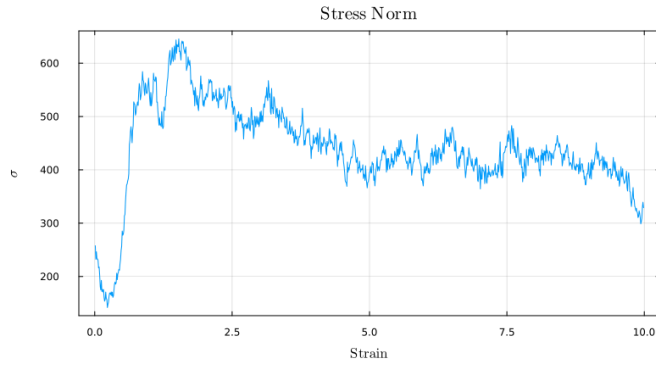
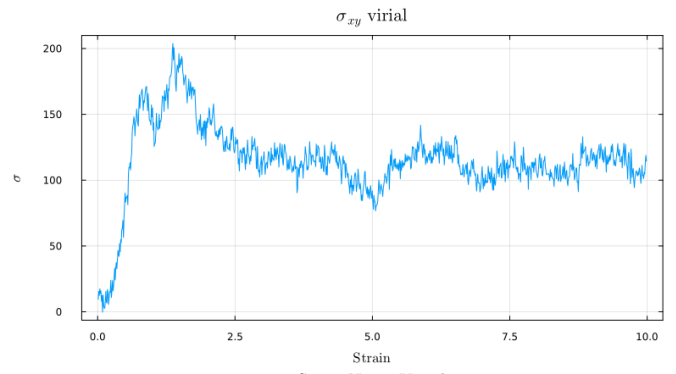
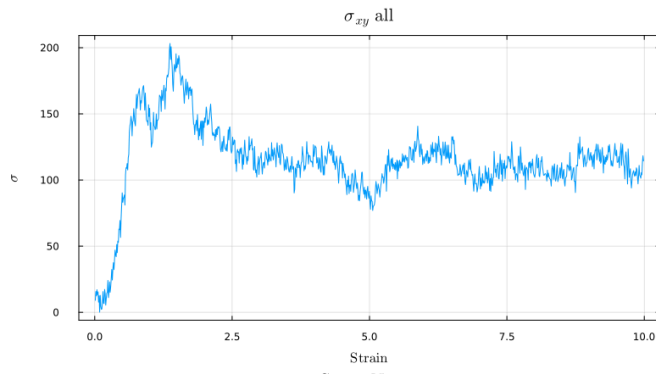
Comparison of compute pressure with compute stress – atom



Pressure



# Stress Atom



# Shear

