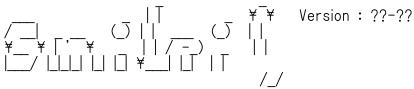
tst3d.log Namelist found: /home/amin/work/Smilei-master/tst3d_4_laser_wake.py



Reading the simulation parameters

```
_____
```

HDF5 version 1.10.1

[WARNING] Smilei suggests using HDF5 version 1.8.16

[WARNING] Newer version are not tested and may cause the code to behave

incorrectly

[WARNING] See

http://hdf-forum.184993.n3.nabble.com/Segmentation-fault-using-H5Dset-extent-in-parallel-td4029082.html

Python version 2.7.5

Parsing pyinit.py

Parsing ??-??

Parsing pyprofiles.py

Parsing tst3d_4_laser_wake.py

Parsing pycontrol.py

Calling python smilei check

Geometry: 3d3v

(nDim particle, nDim field): (3, 3)

Interpolation_order: 2

(res_time, sim_time) : (8.064516, 223.944000)

(n_time, timestep): (1806, 0.124000)

timestep = 0.993721 * CFL

dimension 0 - (res_space, sim_length) : (8.000000, 112.000000)

- (n_space_global, cell_length) : (896, 0.125000)

dimension 1 - (res_space, sim_length) : (0.333333, 120.00000)

- (n_space_global, cell_length) : (40, 3.000000)

dimension 2 - (res_space, sim_length): (0.333333, 120.000000)

- (n space global, cell length) : (40, 3.000000)

Load Balancing:

```
tst3d.log
        Patches are initially homogeneously distributed between MPI ranks. (initial balance
= false)
        Load balancing every 20 iterations.
        Cell load coefficient = 1.000000
        Frozen particle load coefficient = 0.100000
Initializing MPI
        Number of MPI process: 1
        Number of patches:
                dimension 0 - number_of_patches : 128
                dimension 1 - number_of_patches : 4
                dimension 2 - number of patches: 4
        Patch size:
                dimension 0 - n_space : 7 cells. dimension 1 - n_space : 10 cells.
                dimension 2 - n_space : 10 cells.
        Dynamic load balancing frequency: every 20 iterations.
OpenMP
        Number of thread per MPI process: 1
Initializing the restart environment
Initializing moving window
-----
        Moving window is active:
                velocity_x : 0.999700
                time start: 112.000000
Initializing particles & fields
 ______
        Creating Species: electron
```

Laser parameters:

```
tst3d.log
                 Laser #0: custom profile
                          omega
                         space envelope (y): 2D user-defined function
                          space envelope (z): 2D user-defined function
                                          (y) : 2D user-defined function
                                          (z): 2D user-defined function
                         phase
         Adding particle walls:
                  Nothing to do
Initializing Patches
         First patch created
                  Approximately 10% of patches created Approximately 20% of patches created
                  Approximately 30% of patches created
                  Approximately 40% of patches created
                  Approximately 50% of patches created Approximately 60% of patches created
                  Approximately 70% of patches created
                  Approximately 80% of patches created
                  Approximately 90% of patches created
         All patches created
Creating Diagnostics, antennas, and external fields
         Created particle diagnostic #0: species electron
                  Axis moving x from 0 to 112 in 896 steps
                  Axis px from -1 to 2 in 100 steps
         Diagnostic Fields #0 :
                  Ex Ey Jx Rho
         Probe diagnostic #0 created
                  896 points
                  corner 0 : 0, 60, 60
                  corner 1: 112, 60, 60
         Probe diagnostic #1 created
                  896x40 points (total = 35840)
                  corner 0:0,30,60
                  corner 1: 0, 90, 60
                  corner 2: 112, 30, 60
         Done initializing diagnostics
Â
Applying external fields at time t = 0
```

tst3d.log

```
Initializing diagnostics
Running diags at time t = 0
OpenMP
         Number of thread per MPI process: 1
Initializing the restart environment
Initializing moving window
         Moving window is active:
                  velocity x : 0.999700
                  time start: 112.000000
Initializing particles & fields
         Creating Species: electron
         Laser parameters:
                 Laser #0: custom profile
                          omega
                          chirp_profile : 1D built-in profile `tconstant` ime envelope : 1D built-in profile `tgaussian`
                          space envelope (y): 2D user-defined function
                          space envelope (z): 2D user-defined function
                                     (y): 2D user-defined function
                          phase
                                           (z): 2D user-defined function
                          phase
         Adding particle walls:
                  Nothing to do
```

tst3d.log

```
Initializing Patches
        First patch created
                 Approximately 10% of patches created
                 Approximately 20% of patches created
                 Approximately 30% of patches created
                 Approximately 40% of patches created Approximately 50% of patches created
                 Approximately 60% of patches created
                 Approximately 70% of patches created
                 Approximately 80% of patches created
                 Approximately 90% of patches created
         All patches created
Creating Diagnostics, antennas, and external fields
         Created particle diagnostic #0: species electron
                 Axis moving_x from 0 to 112 in 896 steps
                 Axis px from -1 to 2 in 100 steps
         Diagnostic Fields #0 :
                 Ex Ey Jx Rho
         Probe diagnostic #0 created
                 896 points
                 corner 0:0,60,60
                 corner 1: 112, 60, 60
         Probe diagnostic #1 created
                 896x40 \text{ points (total = } 35840)
                 corner 0 : 0, 30, 60
                 corner 1: 0, 90, 60
                 corner 2: 112, 30, 60
         Done initializing diagnostics
Â
Applying external fields at time t = 0
 -----
Initializing diagnostics
```

tst3d.log

```
Running diags at time t = 0
Species creation summary
             Species O (electron) created with 11468800 particles
Cleaning up python runtime environement
______
      Checking for cleanup() function:
      python cleanup function does not exists
      Calling python _keep_python_running():
             Closing Python
Memory consumption
 -----
      (Master) Species part = 634 MB
      Global Species part = 0.620 GB
      Max Species part = 634 MB
      (Master) Fields part = 548 MB
      Global Fields part = 0.536 GB
      Max Fields part = 548 MB
      (Master) ParticleDiagnosticO.h5 = 0 MB
      Global ParticleDiagnosticO.h5 = 0.001 GB
      Max ParticleDiagnosticO.h5 = 0 MB
      (Master) Probes 0.h5 = 0 MB
      Global ProbesO.h5 = 0.000 GB
      Max Probes 0.h5 = 0 MB
      (Master) Probes1.h5 = 4 MB
      Global Probes1.h5 = 0.004 GB
      Max Probes1.h5 = 4 MB
Time-Loop started: number of time-steps n_time = 1806
  ______
  timestep sim time cpu time [s] ( diff [s])
```