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Proyecto 1 OpenMP

Secuencial	Paralelo
SECUENTIAL VERSION DISCRETE_STEPS: 80000 BAR STATE: { 10, 10, 10, ... 20, 20, 20, ... 78, 79, 80 } While loop time ellapsed: 61.809521	Starting execution currentDT: 40000.000000 dt=0.001250 CFL Stability Condition: 0.320000 NUM_THREADS: 8 DISCRETE_STEPS: 80000 BAR STATE: { 10.00, 10.05, 10.10, ... 20.00, 20.00, 20.00, ... 79.40, 79.70, 80.00 } While loop time ellapsed: 15.309333
SECUENTIAL VERSION DISCRETE_STEPS: 80000 BAR STATE: { 10, 10, 10, ... 20, 20, 20, ... 78, 79, 80 } While loop time ellapsed: 66.225533	Starting execution currentDT: 40000.000000 dt=0.001250 CFL Stability Condition: 0.320000 NUM_THREADS: 8 DISCRETE_STEPS: 80000 BAR STATE: { 10.00, 10.05, 10.10, ... 20.00, 20.00, 20.00, ... 79.40, 79.70, 80.00 } While loop time ellapsed: 17.672185
CFL Stability Condition: 0.032000 SECUENTIAL VERSION DISCRETE_STEPS: 80000 BAR STATE: { 10, 10, 10, ... 20, 20, 20, ... 78, 79, 80 } While loop time ellapsed: 74.605629	Starting execution currentDT: 40000.000000 dt=0.001250 CFL Stability Condition: 0.320000 NUM_THREADS: 8 DISCRETE_STEPS: 80000 BAR STATE: { 10.00, 10.05, 10.10, ... 20.00, 20.00, 20.00, ... 79.40, 79.70, 80.00 } While loop time ellapsed: 18.492500
SECUENTIAL VERSION DISCRETE_STEPS: 80000 BAR STATE: { 10, 10, 10, ... 20, 20, 20, ... 78, 79, 80 } While loop time ellapsed: 74.513565	dt=0.001250 CFL Stability Condition: 0.320000 NUM_THREADS: 8 DISCRETE_STEPS: 80000 BAR STATE: { 10.00, 10.05, 10.10, ... 20.00, 20.00, 20.00, ... 79.40, 79.70, 80.00 } While loop time ellapsed: 18.652355
CFL Stability Condition: 0.032000 SECUENTIAL VERSION DISCRETE_STEPS: 80000 BAR STATE: { 10, 10, 10, ... 20, 20, 20, ... 78, 79, 80 } While loop time ellapsed: 71.999413	currentDT: 40000.000000 dt=0.001250 CFL Stability Condition: 0.320000 NUM_THREADS: 8 DISCRETE_STEPS: 80000 BAR STATE: { 10.00, 10.05, 10.10, ... 20.00, 20.00, 20.00, ... 79.40, 79.70, 80.00 } While loop time ellapsed: 18.886817
SECUENTIAL VERSION DISCRETE_STEPS: 80000 BAR STATE: { 10, 10, 10, ... 20, 20, 20, ... 78, 79, 80 } While loop time ellapsed: 75.480972	t=0.001250 FL Stability Condition: 0.320000 UM_THREADS: 8 ISCRETE_STEPS: 80000 AR STATE: { 10.00, 10.05, 10.10, ... 20.00, 20.00, 20.00, ... 79.40, 79.70, 80.00 } hile loop time ellapsed: 18.219528
ECUENTIAL VERSION ISCRETE_STEPS: 80000 AR STATE: { 10, 10, 10, ... 20, 20, 20, ... 78, 79, 80 } hile loop time ellapsed: 72.903038	currentDT: 40000.000000 dt=0.001250 CFL Stability Condition: 0.320000 NUM_THREADS: 8 DISCRETE_STEPS: 80000 BAR STATE: { 10.00, 10.05, 10.10, ... 20.00, 20.00, 20.00, ... 79.40, 79.70, 80.00 } While loop time ellapsed: 18.195949
SECUENTIAL VERSION DISCRETE_STEPS: 80000 BAR STATE: { 10, 10, 10, ... 20, 20, 20, ... 78, 79, 80 } While loop time ellapsed: 78.612419	currentDT: 40000.000000 dt=0.001250 CFL Stability Condition: 0.320000 NUM_THREADS: 8 DISCRETE_STEPS: 80000 BAR STATE: { 10.00, 10.05, 10.10, ... 20.00, 20.00, 20.00, ... 79.40, 79.70, 80.00 } While loop time ellapsed: 18.846686
SECUENTIAL VERSION DISCRETE_STEPS: 80000 BAR STATE: { 10, 10, 10, ... 20, 20, 20, ... 78, 79, 80 } While loop time ellapsed: 74.020607	dt=0.001250 CFL Stability Condition: 0.320000 NUM_THREADS: 8 DISCRETE_STEPS: 80000 BAR STATE: { 10.00, 10.05, 10.10, ... 20.00, 20.00, 20.00, ... 79.40, 79.70, 80.00 } While loop time ellapsed: 18.168778
SECUENTIAL VERSION DISCRETE_STEPS: 80000 BAR STATE: { 10, 10, 10, ... 20, 20, 20, ... 78, 79, 80 } While loop time ellapsed: 73.003845	dt=0.001250 CFL Stability Condition: 0.320000 NUM_THREADS: 8 DISCRETE_STEPS: 80000 BAR STATE: { 10.00, 10.05, 10.10, ... 20.00, 20.00, 20.00, ... 79.40, 79.70, 80.00 } While loop time ellapsed: 17.799718
SECUENTIAL VERSION DISCRETE_STEPS: 80000 BAR STATE: { 10, 10, 10, ... 20, 20, 20, ... 78, 79, 80 } While loop time ellapsed: 73.088608	dt=0.001250 CFL Stability Condition: 0.320000 NUM_THREADS: 8 DISCRETE_STEPS: 80000 BAR STATE: { 10.00, 10.05, 10.10, ... 20.00, 20.00, 20.00, ... 79.40, 79.70, 80.00 } While loop time ellapsed: 18.005199

```
SECUENTIAL VERSION
DISCRETE_STEPS: 80000
BAR STATE: { 10, 10, 10, ... 20, 20, 20, ... 78, 79, 80 }
While loop time ellapsed: 73.324348
```

```
dt=0.001250
CFL Stability Condition: 0.320000
NUM_THREADS: 8
DISCRETE_STEPS: 80000
BAR STATE: { 10.00, 10.05, 10.10, ... 20.00, 20.00, 20.00, ... 79.40, 79.70, 80.00 }
While loop time ellapsed: 18.426472
```

```
SECUENTIAL VERSION
DISCRETE_STEPS: 80000
BAR STATE: { 10, 10, 10, ... 20, 20, 20, ... 78, 79, 80 }
While loop time ellapsed: 73.084190
```

```
dt=0.001250
CFL Stability Condition: 0.320000
NUM_THREADS: 8
DISCRETE_STEPS: 80000
BAR STATE: { 10.00, 10.05, 10.10, ... 20.00, 20.00, 20.00, ... 79.40, 79.70, 80.00 }
While loop time ellapsed: 18.236379
```

```
SECUENTIAL VERSION
DISCRETE_STEPS: 80000
BAR STATE: { 10, 10, 10, ... 20, 20, 20, ... 78, 79, 80 }
While loop time ellapsed: 73.364624
```

```
dt=0.001250
CFL Stability Condition: 0.320000
NUM_THREADS: 8
DISCRETE_STEPS: 80000
BAR STATE: { 10.00, 10.05, 10.10, ... 20.00, 20.00, 20.00, ... 79.40, 79.70, 80.00 }
While loop time ellapsed: 17.888355
```

```
SECUENTIAL VERSION
DISCRETE_STEPS: 80000
BAR STATE: { 10, 10, 10, ... 20, 20, 20, ... 78, 79, 80 }
While loop time ellapsed: 75.852264
```

```
dt=0.001250
CFL Stability Condition: 0.320000
NUM_THREADS: 8
DISCRETE_STEPS: 80000
BAR STATE: { 10.00, 10.05, 10.10, ... 20.00, 20.00, 20.00, ... 79.40, 79.70, 80.00 }
While loop time ellapsed: 18.249685
```

```
SECUENTIAL VERSION
DISCRETE_STEPS: 80000
BAR STATE: { 10, 10, 10, ... 20, 20, 20, ... 78, 79, 80 }
While loop time ellapsed: 71.802032
```

```
dt=0.001250
CFL Stability Condition: 0.320000
NUM_THREADS: 8
DISCRETE_STEPS: 80000
BAR STATE: { 10.00, 10.05, 10.10, ... 20.00, 20.00, 20.00, ... 79.40, 79.70, 80.00 }
While loop time ellapsed: 18.357193
```

```
SECUENTIAL VERSION
DISCRETE_STEPS: 80000
BAR STATE: { 10, 10, 10, ... 20, 20, 20, ... 78, 79, 80 }
While loop time ellapsed: 74.067741
```

```
dt=0.001250
CFL Stability Condition: 0.320000
NUM_THREADS: 8
DISCRETE_STEPS: 80000
BAR STATE: { 10.00, 10.05, 10.10, ... 20.00, 20.00, 20.00, ... 79.40, 79.70, 80.00 }
While loop time ellapsed: 18.769300
```

```
SECUENTIAL VERSION
DISCRETE_STEPS: 80000
BAR STATE: { 10, 10, 10, ... 20, 20, 20, ... 78, 79, 80 }
While loop time ellapsed: 75.816032
```

```
dt=0.001250
CFL Stability Condition: 0.320000
NUM_THREADS: 8
DISCRETE_STEPS: 80000
BAR STATE: { 10.00, 10.05, 10.10, ... 20.00, 20.00, 20.00, ... 79.40, 79.70, 80.00 }
While loop time ellapsed: 20.739911
```

```
SECUENTIAL VERSION
DISCRETE_STEPS: 80000
BAR STATE: { 10, 10, 10, ... 20, 20, 20, ... 78, 79, 80 }
While loop time ellapsed: 73.852585
```

```
dt=0.001250
CFL Stability Condition: 0.320000
NUM_THREADS: 8
DISCRETE_STEPS: 80000
BAR STATE: { 10.00, 10.05, 10.10, ... 20.00, 20.00, 20.00, ... 79.40, 79.70, 80.00 }
While loop time ellapsed: 18.771977
```

```
SECUENTIAL VERSION
DISCRETE_STEPS: 80000
BAR STATE: { 10, 10, 10, ... 20, 20, 20, ... 78, 79, 80 }
While loop time ellapsed: 71.696259
```

```
dt=0.001250
CFL Stability Condition: 0.320000
NUM_THREADS: 8
DISCRETE_STEPS: 80000
BAR STATE: { 10.00, 10.05, 10.10, ... 20.00, 20.00, 20.00, ... 79.40, 79.70, 80.00 }
While loop time ellapsed: 18.431666
```

Promedio:69.255663

Promedio:18.305999

Speedup: 3.783222

```
CFL Stability Condition: 0.032000
SECUENTIAL VERSION
DISCRETE_STEPS: 80000
BAR STATE: { 10, 10, 10, ... 20, 20, 20, ... 78, 79, 80 }
While loop time ellapsed: 23.084572
```

```
Starting execution
currentDT: 40000.000000
dt=0.001250
CFL Stability Condition: 0.320000
NUM_THREADS: 8
DISCRETE_STEPS: 80000
BAR STATE: { 10.00, 10.05, 10.10, ... 20.00, 20.00, 20.00, ... 79.40, 79.
70, 80.00 }
While loop time ellapsed: 4.377185
```

```
CFL Stability Condition: 0.032000
SECUENTIAL VERSION
DISCRETE_STEPS: 80000
BAR STATE: { 10, 10, 10, ... 20, 20, 20, ... 78, 79, 80 }
While loop time ellapsed: 23.143463
```

```
Starting execution
currentDT: 40000.000000
dt=0.001250
CFL Stability Condition: 0.320000
NUM_THREADS: 8
DISCRETE_STEPS: 80000
BAR STATE: { 10.00, 10.05, 10.10, ... 20.00, 20.00, 20.00, ... 79.40, 79.
70, 80.00 }
While loop time ellapsed: 4.413174
```

```
CFL Stability Condition: 0.032000
SECUENTIAL VERSION
DISCRETE_STEPS: 80000
BAR STATE: { 10, 10, 10, ... 20, 20, 20, ... 78, 79, 80 }
While loop time ellapsed: 23.212269
```

```
Starting execution
currentDT: 40000.000000
dt=0.001250
CFL Stability Condition: 0.320000
NUM_THREADS: 8
DISCRETE_STEPS: 80000
BAR STATE: { 10.00, 10.05, 10.10, ... 20.00, 20.00, 20.00, ... 79.40, 79.
70, 80.00 }
While loop time ellapsed: 4.759443
```

CFL Stability Condition: 0.032000
SECUENTIAL VERSION
DISCRETE_STEPS: 80000
BAR STATE: { 10, 10, 10, ... 20, 20, 20, ... 78, 79, 80 }
While loop time ellapsed: 23.369600

Starting execution
currentDT: 40000.000000
dt=0.001250
CFL Stability Condition: 0.320000
NUM_THREADS: 8
DISCRETE_STEPS: 80000
BAR STATE: { 10.00, 10.05, 10.10, ... 20.00, 20.00, 20.00, ... 79.40, 79.70, 80.00 }
While loop time ellapsed: 4.598952

CFL Stability Condition: 0.032000
SECUENTIAL VERSION
DISCRETE_STEPS: 80000
BAR STATE: { 10, 10, 10, ... 20, 20, 20, ... 78, 79, 80 }
While loop time ellapsed: 23.258524

Starting execution
currentDT: 40000.000000
dt=0.001250
CFL Stability Condition: 0.320000
NUM_THREADS: 8
DISCRETE_STEPS: 80000
BAR STATE: { 10.00, 10.05, 10.10, ... 20.00, 20.00, 20.00, ... 79.40, 79.70, 80.00 }
While loop time ellapsed: 4.595235

CFL Stability Condition: 0.032000
SECUENTIAL VERSION
DISCRETE_STEPS: 80000
BAR STATE: { 10, 10, 10, ... 20, 20, 20, ... 78, 79, 80 }
While loop time ellapsed: 22.991388

Starting execution
currentDT: 40000.000000
dt=0.001250
CFL Stability Condition: 0.320000
NUM_THREADS: 8
DISCRETE_STEPS: 80000
BAR STATE: { 10.00, 10.05, 10.10, ... 20.00, 20.00, 20.00, ... 79.40, 79.70, 80.00 }
While loop time ellapsed: 4.596028

CFL Stability Condition: 0.032000
SECUENTIAL VERSION
DISCRETE_STEPS: 80000
BAR STATE: { 10, 10, 10, ... 20, 20, 20, ... 78, 79, 80 }
While loop time ellapsed: 23.358479

Starting execution
currentDT: 40000.000000
dt=0.001250
CFL Stability Condition: 0.320000
NUM_THREADS: 8
DISCRETE_STEPS: 80000
BAR STATE: { 10.00, 10.05, 10.10, ... 20.00, 20.00, 20.00, ... 79.40, 79.70, 80.00 }
While loop time ellapsed: 5.018582

CFL Stability Condition: 0.032000
SECUENTIAL VERSION
DISCRETE_STEPS: 80000
BAR STATE: { 10, 10, 10, ... 20, 20, 20, ... 78, 79, 80 }
While loop time ellapsed: 23.358040

Starting execution
currentDT: 40000.000000
dt=0.001250
CFL Stability Condition: 0.320000
NUM_THREADS: 8
DISCRETE_STEPS: 80000
BAR STATE: { 10.00, 10.05, 10.10, ... 20.00, 20.00, 20.00, ... 79.40, 79.70, 80.00 }
While loop time ellapsed: 4.923780

CFL Stability Condition: 0.032000
SECUENTIAL VERSION
DISCRETE_STEPS: 80000
BAR STATE: { 10, 10, 10, ... 20, 20, 20, ... 78, 79, 80 }
While loop time ellapsed: 23.777012

Starting execution
currentDT: 40000.000000
dt=0.001250
CFL Stability Condition: 0.320000
NUM_THREADS: 8
DISCRETE_STEPS: 80000
BAR STATE: { 10.00, 10.05, 10.10, ... 20.00, 20.00, 20.00, ... 79.40, 79.70, 80.00 }
While loop time ellapsed: 5.288992

CFL Stability Condition: 0.032000
SECUENTIAL VERSION
DISCRETE_STEPS: 80000
BAR STATE: { 10, 10, 10, ... 20, 20, 20, ... 78, 79, 80 }
While loop time ellapsed: 23.795380

Starting execution
currentDT: 40000.000000
dt=0.001250
CFL Stability Condition: 0.320000
NUM_THREADS: 8
DISCRETE_STEPS: 80000
BAR STATE: { 10.00, 10.05, 10.10, ... 20.00, 20.00, 20.00, ... 79.40, 79.70, 80.00 }
While loop time ellapsed: 5.215001

CFL Stability Condition: 0.032000
SECUENTIAL VERSION
DISCRETE_STEPS: 80000
BAR STATE: { 10, 10, 10, ... 20, 20, 20, ... 78, 79, 80 }
While loop time ellapsed: 23.479193

Starting execution
currentDT: 40000.000000
dt=0.001250
CFL Stability Condition: 0.320000
NUM_THREADS: 8
DISCRETE_STEPS: 80000
BAR STATE: { 10.00, 10.05, 10.10, ... 20.00, 20.00, 20.00, ... 79.40, 79.70, 80.00 }
While loop time ellapsed: 5.234548

CFL Stability Condition: 0.032000
SECUENTIAL VERSION
DISCRETE_STEPS: 80000
BAR STATE: { 10, 10, 10, ... 20, 20, 20, ... 78, 79, 80 }
While loop time ellapsed: 23.741289

Starting execution
currentDT: 40000.000000
dt=0.001250
CFL Stability Condition: 0.320000
NUM_THREADS: 8
DISCRETE_STEPS: 80000
BAR STATE: { 10.00, 10.05, 10.10, ... 20.00, 20.00, 20.00, ... 79.40, 79.70, 80.00 }
While loop time ellapsed: 5.169998

CFL Stability Condition: 0.032000
SECUENTIAL VERSION
DISCRETE_STEPS: 80000
BAR STATE: { 10, 10, 10, ... 20, 20, 20, ... 78, 79, 80 }
While loop time ellapsed: 23.741289

Starting execution
currentDT: 40000.000000
dt=0.001250
CFL Stability Condition: 0.320000
NUM_THREADS: 8
DISCRETE_STEPS: 80000
BAR STATE: { 10.00, 10.05, 10.10, ... 20.00, 20.00, 20.00, ... 79.40, 79.70, 80.00 }
While loop time ellapsed: 5.312020

```
CFL Stability Condition: 0.032000
SECUENTIAL VERSION
DISCRETE_STEPS: 80000
BAR STATE: { 10, 10, 10, ... 20, 20, 20, ... 78, 79, 80 }
While loop time ellapsed: 23.757879
```

```
Starting execution
currentDT: 40000.000000
dt=0.001250
CFL Stability Condition: 0.320000
NUM_THREADS: 8
DISCRETE_STEPS: 80000
BAR STATE: { 10.00, 10.05, 10.10, ... 20.00, 20.00, 20.00, ... 79.40, 79.70, 80.00 }
While loop time ellapsed: 5.660930
```

```
CFL Stability Condition: 0.032000
SECUENTIAL VERSION
DISCRETE_STEPS: 80000
BAR STATE: { 10, 10, 10, ... 20, 20, 20, ... 78, 79, 80 }
While loop time ellapsed: 23.816710
```

```
Starting execution
currentDT: 40000.000000
dt=0.001250
CFL Stability Condition: 0.320000
NUM_THREADS: 8
DISCRETE_STEPS: 80000
BAR STATE: { 10.00, 10.05, 10.10, ... 20.00, 20.00, 20.00, ... 79.40, 79.70, 80.00 }
While loop time ellapsed: 5.748130
```

```
CFL Stability Condition: 0.032000
SECUENTIAL VERSION
DISCRETE_STEPS: 80000
BAR STATE: { 10, 10, 10, ... 20, 20, 20, ... 78, 79, 80 }
While loop time ellapsed: 23.349180
```

```
Starting execution
currentDT: 40000.000000
dt=0.001250
CFL Stability Condition: 0.320000
NUM_THREADS: 8
DISCRETE_STEPS: 80000
BAR STATE: { 10.00, 10.05, 10.10, ... 20.00, 20.00, 20.00, ... 79.40, 79.70, 80.00 }
While loop time ellapsed: 5.254356
```

```
CFL Stability Condition: 0.032000
SECUENTIAL VERSION
DISCRETE_STEPS: 80000
BAR STATE: { 10, 10, 10, ... 20, 20, 20, ... 78, 79, 80 }
While loop time ellapsed: 23.781773
```

```
Starting execution
currentDT: 40000.000000
dt=0.001250
CFL Stability Condition: 0.320000
NUM_THREADS: 8
DISCRETE_STEPS: 80000
BAR STATE: { 10.00, 10.05, 10.10, ... 20.00, 20.00, 20.00, ... 79.40, 79.70, 80.00 }
While loop time ellapsed: 5.461811
```

```
CFL Stability Condition: 0.032000
SECUENTIAL VERSION
DISCRETE_STEPS: 80000
BAR STATE: { 10, 10, 10, ... 20, 20, 20, ... 78, 79, 80 }
While loop time ellapsed: 23.752483
```

```
Starting execution
currentDT: 40000.000000
dt=0.001250
CFL Stability Condition: 0.320000
NUM_THREADS: 8
DISCRETE_STEPS: 80000
BAR STATE: { 10.00, 10.05, 10.10, ... 20.00, 20.00, 20.00, ... 79.40, 79.70, 80.00 }
While loop time ellapsed: 5.723616
```

```
CFL Stability Condition: 0.032000
SECUENTIAL VERSION
DISCRETE_STEPS: 80000
BAR STATE: { 10, 10, 10, ... 20, 20, 20, ... 78, 79, 80 }
While loop time ellapsed: 23.835899
```

```
Starting execution
currentDT: 40000.000000
dt=0.001250
CFL Stability Condition: 0.320000
NUM_THREADS: 8
DISCRETE_STEPS: 80000
BAR STATE: { 10.00, 10.05, 10.10, ... 20.00, 20.00, 20.00, ... 79.40, 79.70, 80.00 }
While loop time ellapsed: 5.533804
```

```
CFL Stability Condition: 0.032000
SECUENTIAL VERSION
DISCRETE_STEPS: 80000
BAR STATE: { 10, 10, 10, ... 20, 20, 20, ... 78, 79, 80 }
While loop time ellapsed: 23.702208
```

```
Starting execution
currentDT: 40000.000000
dt=0.001250
CFL Stability Condition: 0.320000
NUM_THREADS: 8
DISCRETE_STEPS: 80000
BAR STATE: { 10.00, 10.05, 10.10, ... 20.00, 20.00, 20.00, ... 79.40, 79.70, 80.00 }
While loop time ellapsed: 5.125828
```

Promedio: 22.32826705	Promedio: 5.37316675 Speedup: 4.155513515377128
Promedio Speed up	(3.783222 + 4.155513)/2 = 3.969368