



PARTNERSHIP FOR
ADVANCED COMPUTING IN EUROPE

Using HPCFS

Leon Kos, UL

**PRACE Autumn School 2013 - Industry Oriented HPC Simulations, September 21-27,
University of Ljubljana, Faculty of Mechanical Engineering, Ljubljana, Slovenia**

Basic HPCFS cluster usage

- Setting GNOME or KDE desktop locale preferences for keyboard, LANG environment
- Using NX client (Disconnect, Terminate, Logout)
- Console commands in Linux
- Editors for programming (emacs, gedit, kate, eclipse, vi, pico, ...)

Modules

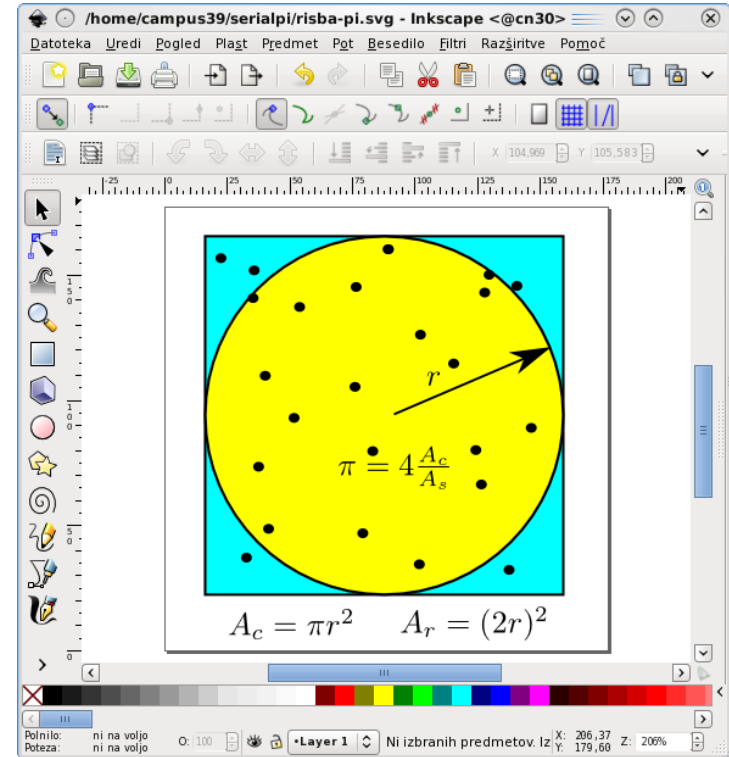
- module avail
- module help/info
- module display
- module load/unload
- module list
- module purge

Pi example

emacs pi.py

single python pi.py

```
import random, math
total=100000
in_circle=0
for i in range(total):
    x = random.uniform(-1, 1)
    y = random.uniform(-1, 1)
    r = math.sqrt(x*x+y*y)
    if r < 1.0:
        in_circle += 1
print 'Pi =', 4.0*in_circle/total
```



Load Sharing Facility (LSF)

- Batch scheduler for all programs
- Compiled-in OpenMPI support
- bsub
- bjobs
- bkill
- bpeek
- Aliases for interactive usage of nodes
 - node, single