MPI on Internet with multi-processor and shared memory support

The following virtual machine from the Monash Research Cloud R@CMON is now ready for use. It comprises 64 processors (cores) with 200+GB of RAM (**useful for the *speed-up* tests**). This facilty is mainly intended for programming with MPI from home or as an alternative to lab PCs (using this facilty does NOT remove the requirement of weekly lab attendance). This facilty is being provisioned to FIT3142/3143/5139 students subject to *fair use*. Fair use implies that (1) this shared facilty will be used for work relating to these units only. (2) Your code must not use ***excessive CPU*** [1]and its ***memory use should not exceed 4GB of RAM***. Failure to comply will entail loss of access and may lead to disciplinary proceedings being initiated. For technical support please contact the eSolutions Helpdesk with attention to Phillip Chan.

Hostname:

fit-parrcomp.erc.monash.edu.au

IP address is: **118.138.234.199**

Please use your Monash authcate username and password for SSH/SCP access. The server will automatically create your $HOME upon first successful SSH login.

Some additional notes about this VM:

- this server is accessible AoE (with Internet) -- students can login anytime from home or even from mobile phones;
- as a security precaution, fail2ban is running, so multiple failed SSH attempts will lock out the source IP address for one hour;

OpenMPI is installed and is enabled by using the module command:

>> **module load mpi**
>> **mpicc**
gcc: fatal error: no input files
compilation terminated.
>> **mpirun**
mpirun could not find anything to do.
It is possible that you forgot to specify how many processes ...

[1] Excessive use of CPU is deemed to have occurred if your code disrupts/locks out others users on the system or it is executed with 100% CPU use, over all the cores, for more than a few seconds. CPU and other system resources use may be monitored by *top* and *vmstat* commands.