Glossary

- **Baobab**: This is the name of our HPC service, as well as the name of our first HPC cluster.
- **Batch**: When you want to launch software with a program (e.g., Stata with a script), you do it in batch mode.
- **CPU**: Central processing unit, the main computing unit of every computer that runs the OS and various programs.
- **Core**: Modern CPU contains many cores, each of which can be seen as a computation unit.
- **FLOPS**: Floating-point Operations Per Second.
- **GPU**: Graphics Processing Unit, co-processors originally designed for graphic rendering, now widely used for general-purpose computing.
- **Head node**: The head node, or login node is the entry point for the users. You connect to the head node to have access to the cluster.
- **HPC**: High Performance Computing, and also the name of your HPC service.
- **HPC cluster**: Our compute infrastructure, composed of a bunch of compute nodes, some storage, at least one head node, all that is part of a network.
- **Interactive**: When you want to launch software like you would do on your own computer and be able to interact with it. It's not good to do that on clusters because as you are working on your software, there are many times when the compute node is just waiting and doing nothing.
- **Job**: Your program executed against your data on a resource.
- **Network interface**: The piece of hardware that allows each computer (or node) to exchange data with each other through a network.
- **Node (compute)**: A server of the cluster where the actual computation is made.
- **Partition**: In Slurm, the compute nodes are grouped by partitions. Each partition can have different characteristics.
- **Primary Investigator or PI**: Your boss.
- **RAM**: Random Access Memory, fast memory used to store programs and related data while they are executed.
- **Resources**: For example, the CPUs, memory, disks.
- **Scheduler**: As the cluster is shared between users, when you want to use a resource on the cluster, the scheduler is responsible for allocating the resources you ask for. If the resources aren't available (already allocated to another job), the scheduler will put your job in a queue and allocate you the resources later.
- **Scratch space**: A space on a hard disk drive that is dedicated for the storage of temporary user data. It is unreliable by intention and has no backup.

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