Names: Jesús Rodríguez Heras y Juan Pedro Rodríguez Gracia.

Smaller, faster and expensive.

Abstraction present the processor with the ilusion of a very large and fast memory.

Because it allows us to think that all cpus share a very fast and extensive memory when it really is located in perfectly differentiated caches.

The problems that we have to face are the problems of competition such as mutual exclusion, tasks distribution, etc.

We will need a good bandwidth so that communication is fast.

Not all computers have good speed.

Grids and Clusters.

Grids are composed of heterogeneous computers connected through a network while the clusters are homogeneous computers present in the same room.

Highly parallelisable problems.

Dispatcher and Workers.

Give work and collect the results.

Communication is fundamental difficulty.

The extra amount of a resource that is necessary to solve the problem.

Load distribution, machine failures and network performance are the main issues to consider.

Highly parallelisable problems.

Problems in which a large amount of calculation is necessary with little access to shared resources. Because in a parallel system, the execution time is reduced, but in the accesses to the shared resources, the whole system stops due to the mutual exclusion.

Communication: Distributing data, updating shard resource, communicating results and handling failures.

Algorithms and data structures: Must look at problems form parallel standpoint.