

Paralell and Distributed Algorithms

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The course

- Divided in two parts
 - Parallel **Algorithms**
 - Distributed **Algorithms**
- The focus is on **Algorithms**
 - Models
 - Abstraction that describes the operation of a machine
 - Allowing to associate a cost to each operation

Parallel Algorithms

- PRAM
- BSP
- LogP
- Multicore

Distributed Algorithms

- More agreement on the model
 - Entities (heterogeneous)
 - Communication network
 - In general Asynchronous
 - Algorithm=Protocol
 - The collective but autonomous execution of those rules, possibly without any supervision or synchronization, must enable the entities to perform the desired task to solve the problem