

A Process Calculus I

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A Process Calculus

- Description of process networks
 - Static communication topologies.
- History sketch
 - Robin Milner, 1980.
 - CCS: Calculus of Communicating Systems.
 - Various revisions and elaborations.
 - Extended to *mobile* processes (π -calculus).
- Algebraic approach
 - Concurrent system modeled by term.
 - Theory of term manipulations.
 - External behavior preserved.
- *Observational equivalence*
 - *External* communications follow same pattern.
 - *Internal* behavior may differ.

Modeling of communication and concurrency.

A Simple Example

