CADP

Construction and Analysis of Distributed Processes

http://cadp.inria.fr

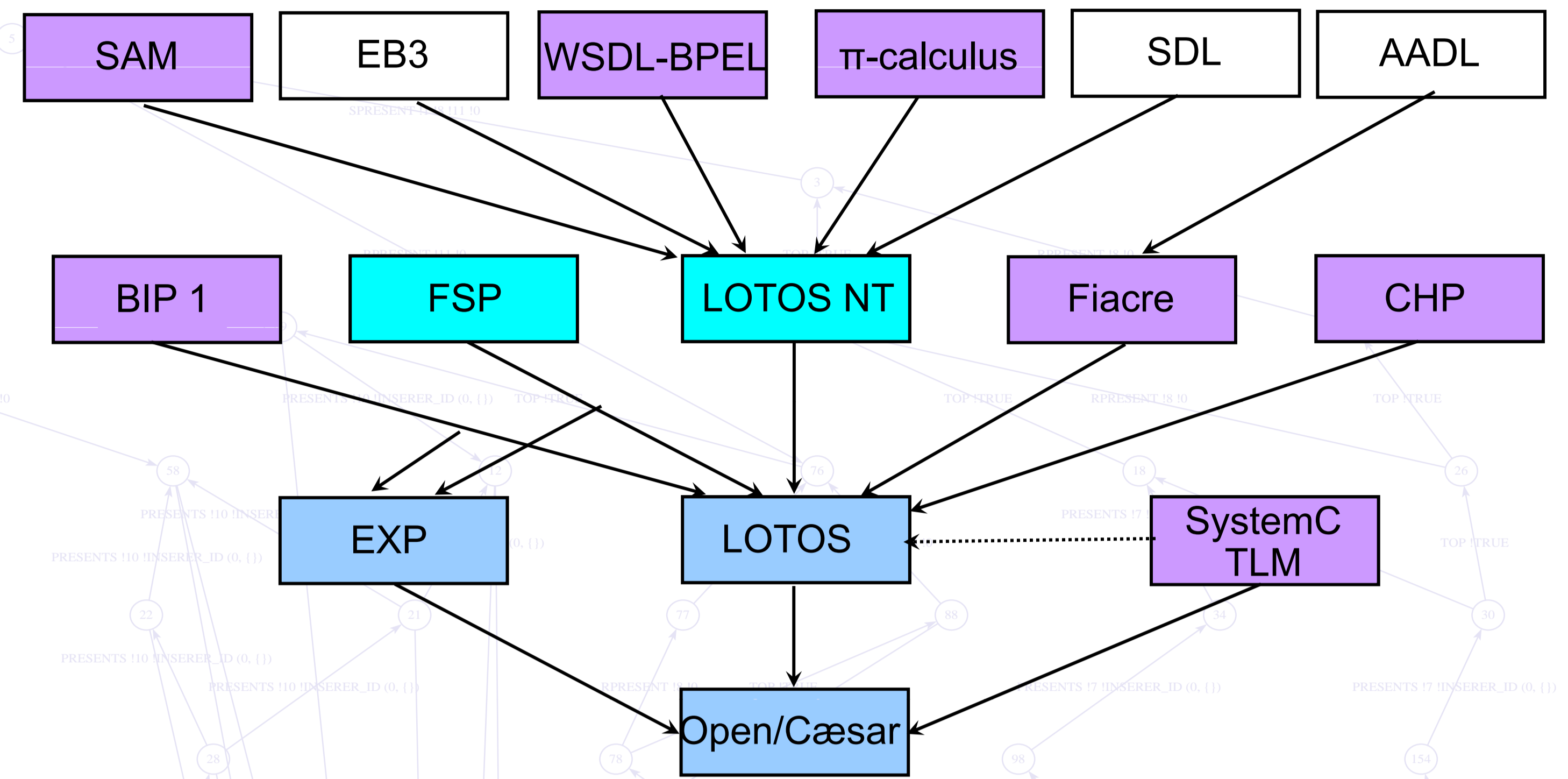informatics mathematics
Inria

Many formal input languages

– process calculi (LNT, π, FSP, …)
– networks of communicating automata

Simulation and rapid prototyping

– code generation (C)
– step-by-step & guided execution
– random execution

Performance evaluation

– Markovian minimization
– transient & steady state analysis
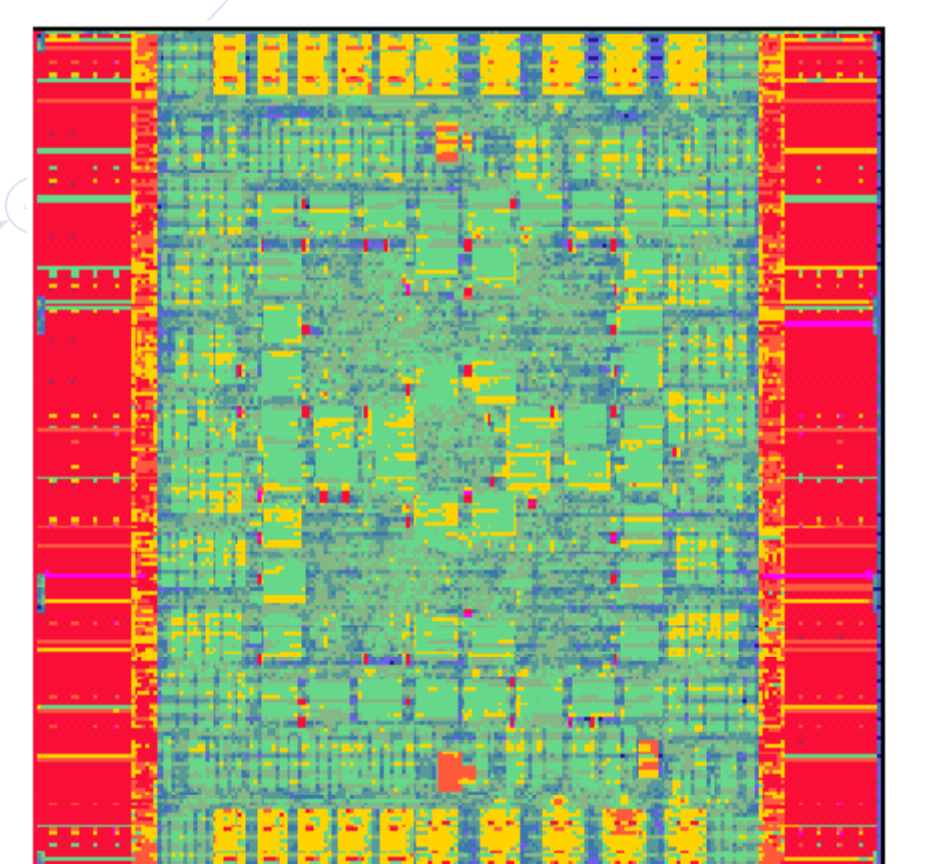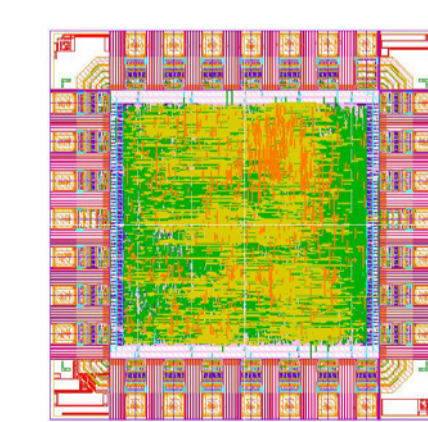– steady state simulation

Test case generation

Script language for verification scenarios (SVL)

Some figures about CADP 2013

– 42 tools and 17 software libraries
– 10 computing platforms:
Sparc/Solaris*, PC/Solaris*, PC/Linux*, Itanium/Linux, PC/Windows, MacOS (*: 32 and 64 bit)
– International dissemination:
  • 10,000[th] license granted in 2012
  • licenses granted for 1227 machines in 2012
  • 155 case-studies using CADP http://cadp.inria.fr/case-studies
  • 72 research tools connected to CADP http://cadp.inria.fr/software
  • 28 university lectures based on CADP
  • User forum (more than 230 users and 1400 messages) http://cadp.inria.fr/forum.html

Explicit-state verification…

– model checking (μ-calculus, MCL)
– equivalence checking (bisimulations)
– visual checking

…using different techniques:

– exhaustive
– partial
– on the fly
– compositional
– distributed (clusters, grids)

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