



Five-minute review

“Realizing Reconfigurable Mesh Algorithms on
Softcore Arrays”

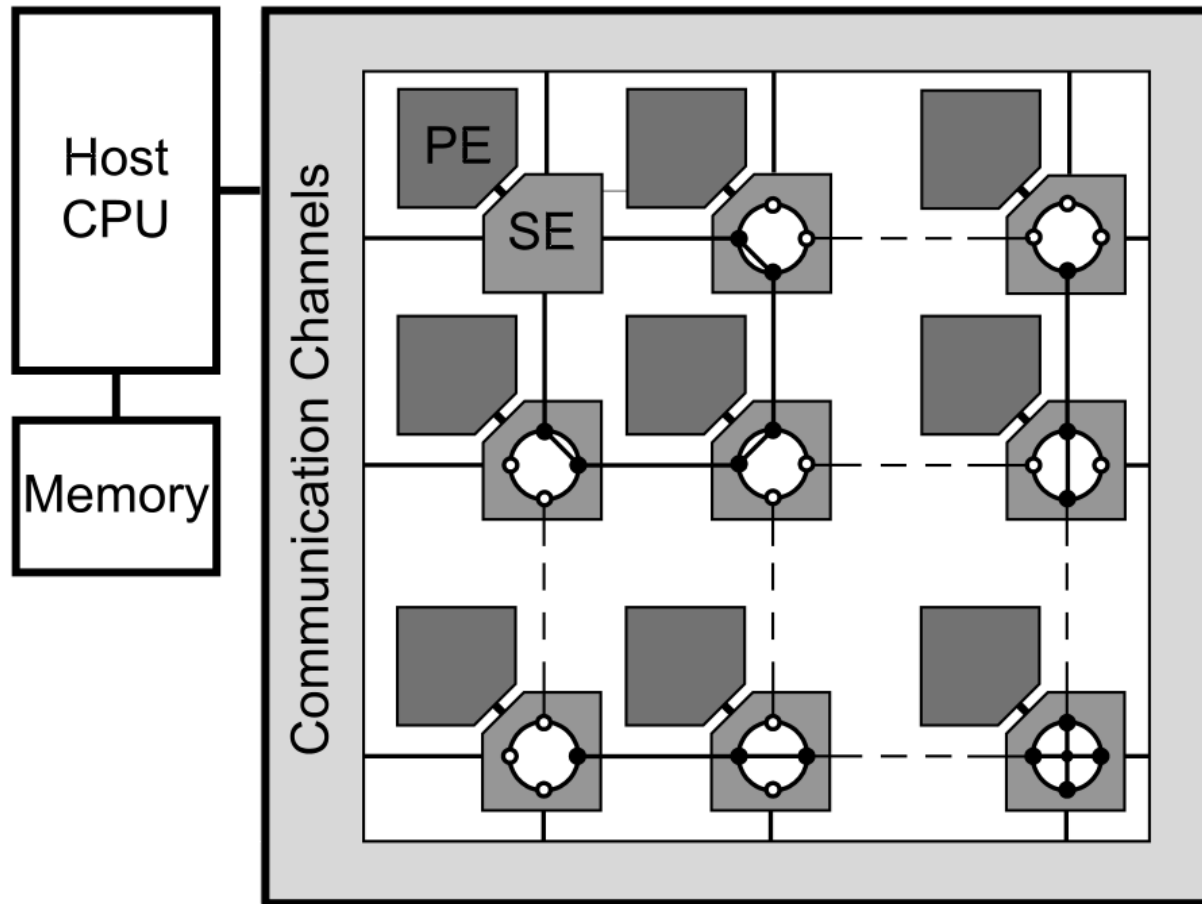
GIEFERS , Heiner (Universität Paderborn)
PLATZNER, Marco (Universität Paderborn)

2008 International Conference on Embedded Computer
Systems: Architecture, Modelling and Simulation (SAMOS
2008)

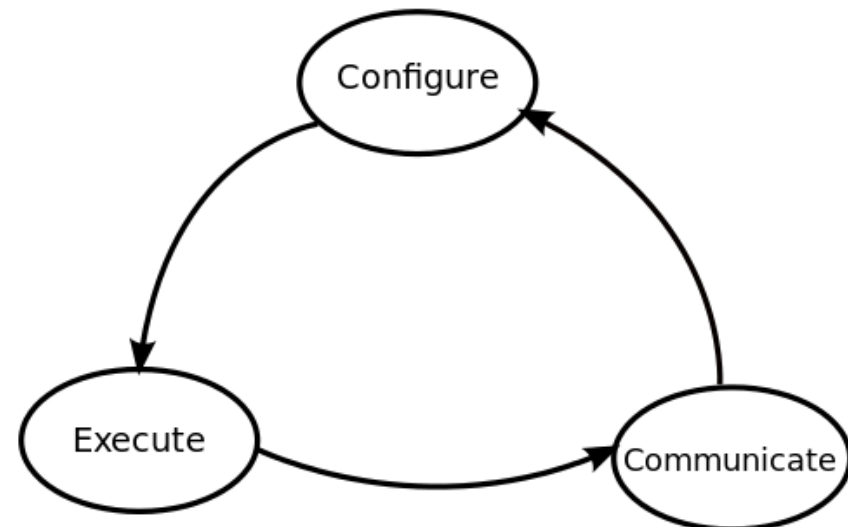
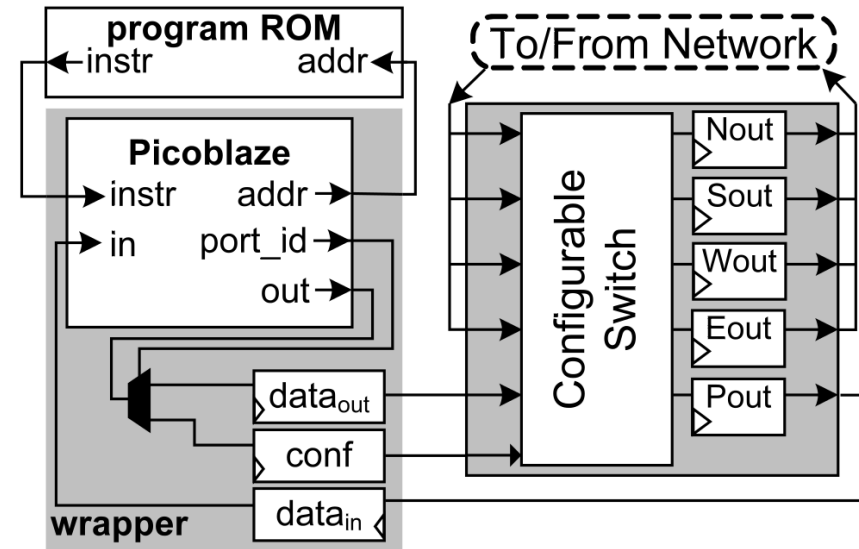
Motivation/Problem

- Reconfigurable Mesh (RMESH) seems a very interesting way to describe algorithms
 - Ex: Parallel sort with $O(1)$ runtime complexity
- We need an easy-to-implement, robust and flexible platform to evaluate the RMESH model
 - We use an 2D-array of Picoblazes (very lightweight softcores from Xilinx)

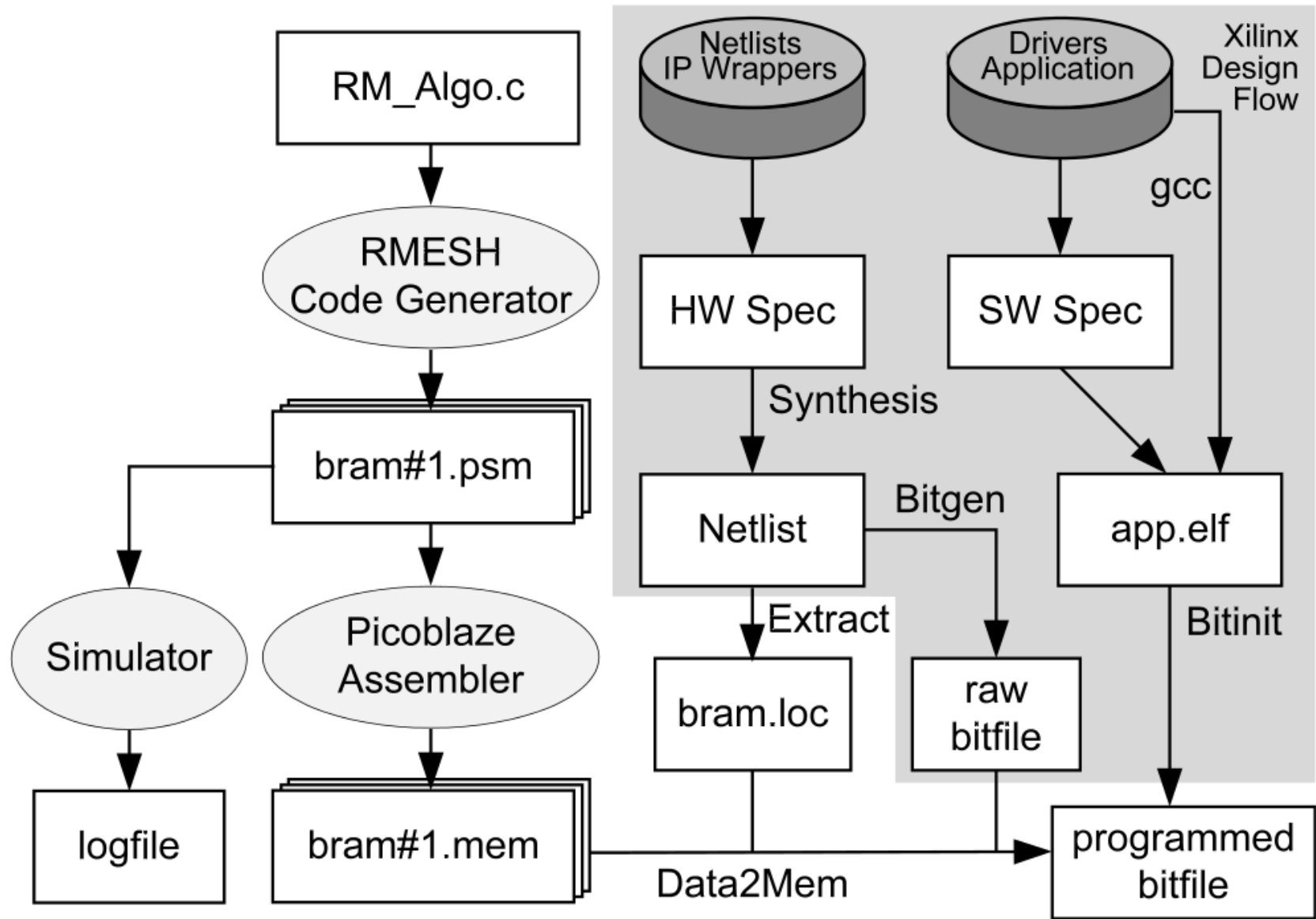
How does it work?



System architecture



How does it work?



Code generation for each Picoblaze

HW synthesis & Host processor SW generation

Any questions?

- Full paper

- Heiner Giefers, Marco Platzner, "Realizing Reconfigurable Mesh Algorithms on Softcore Arrays", Embedded Computer Systems: Architectures, Modelling and Simulation, International Conference on.

- Heiner Giefers' homepage @ Uni Paderborn

- <http://www.cs.uni-paderborn.de/fachgebiete/computer-engineering-group>