

Link with the bottom layer on **Asm_{CPU}**

Bottom layer (L_{btm}) with **Asm_{CPU}**

Multicore linking template

Optimize intermediate languages to
simplify linking

Per-CPU machine

Partial machines with
environmental context

Deterministic multicore machine
model with HW oracle

Nondeterministic multicore
machine model

Refinement proofs

HW
configurations
for **Asm_{CPU}**

Abstract definitions

Link with the L_{cputop} and $L_{thrdbtm}$

Bottom layer ($L_{thrdbtm}$)

Multithreaded linking template

Program-specific
refinement relation

Abstract refinement
relation

Thread
configurations

Refinement proofs

Intermediate
layer definition

Abstract layer (***TLink***)

Thread configurations
Aux. functions

Auxiliary
Functions

Program-specific
refinement relation

Abstract refinement
relation

Bottom layer (***TSched***)

Single threaded machine model
with big environmental steps

Single threaded machine model
with small environmental steps

Multithreaded machine model

Top layer (***CSched***)

Top layer (L_{cputop})

