

Unified Resources Description

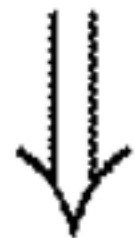
Original Model
($Prog_{ori}$)

Statement[1]
Statement[2]
.....
Statement[n]

Resources Constraints

Decomposition Algorithms

AST of $Prog_{ori}$



- Control-Dependence
- Data-Dependence

SDG of $Prog_{ori}$



- Resource Constraint
- Calculation units (CUs)

Decomposition Model

Collaboration Algorithms

Exact number of $Prog_{cus}$



- Communication
- Synchronization

Collaboration Model