

High-level Programming

High-level
Expression

Algorithmic Primitives

map

split

reduce

...

Transformation using Rewrite Rules

smooth

residual

restrict

prolongate

Applying Optimizations Manually

Low-level
Expression

OpenCL Primitives

mapWorkgroup

toLocal

...

Code Generation

OpenCL
Program

Hardware Paradigms

local memory

barriers

...

Evaluating OpenCL Programs