

BlackScholes
Dot product ... Vector reduction

**High-level
programming**

High-level Expression

Algorithmic Patterns

`split` `map`
`iterate` `...` `reorder`
`join` `reduce`

*Algorithmic choices &
Hardware optimizations*

**Exploration with
rewriting rules**

Low-level Expression

OpenCL Patterns

`map-workgroup`
`vectorize` `...` `toLocal`
`map-local`

Code generation

OpenCL Program

Hardware Paradigms

`local memory`
`workgroups` `...` `barriers`
`vector units`