Application Code with
irregular memory accesses

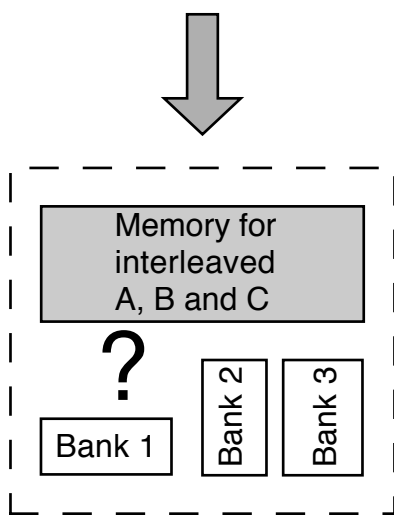Array A

Pattern Repetition

2A   2H

1A 2H
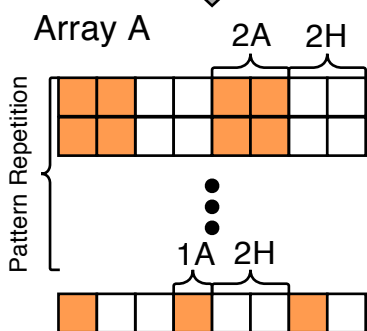
Formal memory models

Extraction of access scheme
for each vector

A B C

?

4, 8 or 16
words

Vector FU
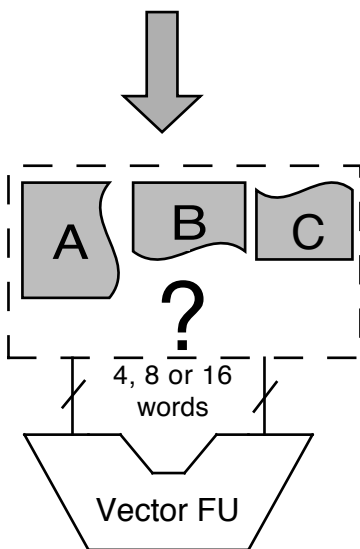
Defined operations
between access patterns

Exploration of interleaving
options for varying SIMD
architectures

Memory for
interleaved
A, B and C

?

Bank 1   Bank 2   Bank 3

Propagation of
interleaving constrains

Exploration of data-to-memory
mapping options for a
clustered SPM architecture