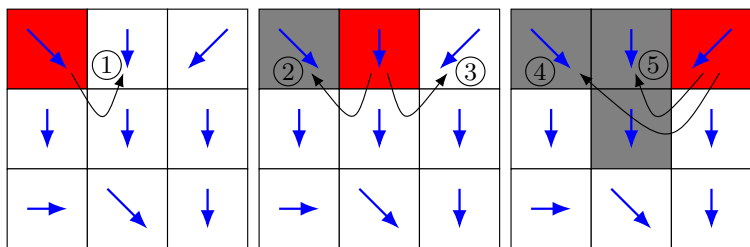# Memory-Efficient Flow Accumulation (MEFA) Using a Look-Around Approach
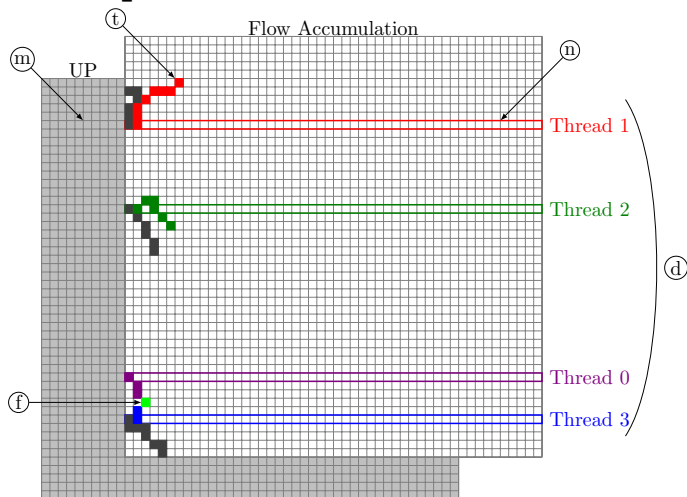
Introduction

- Input + intermediate + output data too big to fit in memory
- Repeated writes by multiple threads expensive

On-the-Fly Look-Around & Write Once
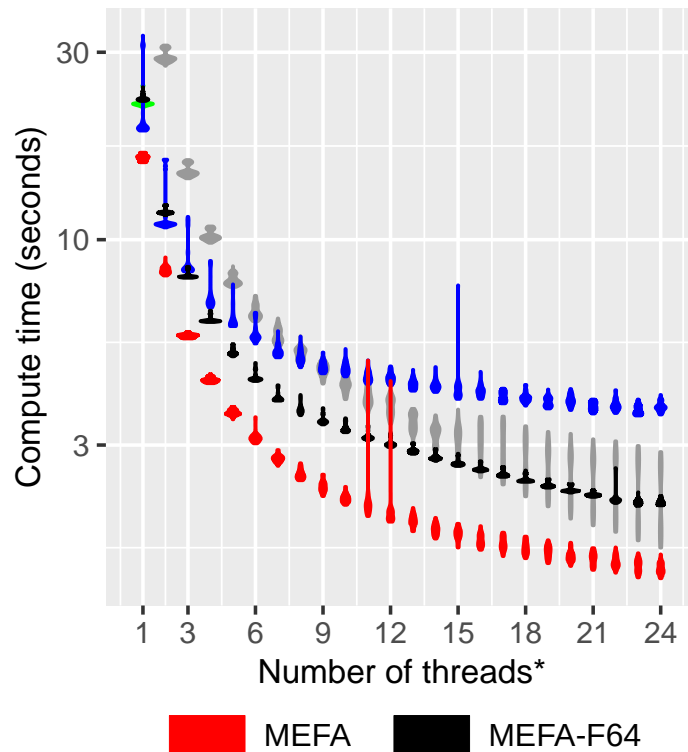

OpenMP Parallelization

Results

MEFA

Cho, Huidae (2023)

Conclusions

- MEFA is a single-node multi-threaded approach
- Reduced memory requirements in terms of both bytes and writes
- Up to 45% faster than its OpenMP & MPI benchmark algorithms