Minimum Spawning Tree
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DPHPC

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1. Problem definition
   - Concepts
   - Use cases

2. Algorithms
   - Prim
   - Kruskal
   - Borůvka (Sollin)
   - Others

3. Environment

4. Benchmarking
   - Reference, baseline

Problem definition
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Benchmarking

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Use cases

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The MST problem

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(Somewhat) realistic use-cases and input sets?

- $G(n, p)$
- Preferential attachment
  - Social networks

Algorithms

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A few ideas

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Correctness

How to verify correctness of the parallelization?

Environment

Architecture

EULER Cluster

Xeon Ex, $x \in \{3, 5, 7\}$; x86_64 architecture

Source : https://scicomp.ethz.ch/wiki/Euler

Tools

C++, OMP : shared memory

Benchmarking

How to argue about performance (bounds, what to compare to?)

https://spcl.inf.ethz.ch/Research/Performance/LibLSB/