**Lecture 9 - Parallel explore and other algorithms**

**Parallel explore**

Explore a tree, in recursive decomposition fashion.

**Example:** Given a set of integers, find, if possible, a partition into two subsets of equal sum.

The solution is a backtracking algorithm. To parallelize it, the backtracking search space is divided between the threads. Solution: [subset\_sum\_async.cpp](https://www.cs.ubbcluj.ro/~rlupsa/edu/pdp/progs/subset_sum_async.cpp).

**Pipeline pattern**

Processing is divided in stages; the output of one stage is fed as input in the next stage.

Pipeline can be generalized to any DAG.