## Hardware Architecture Parallel Processing Notations

- A **processor** is a machine that can execute computer programs.
- A **scalar processor** is the simplest class of computer processors that can process one data item at a time (typical data items being integers or floating point numbers).
- A **vector processor**, by contrast, can execute a single instruction to operate simultaneously on multiple data items.
  - Analogy: scalar and vector arithmetic.

## Problems and Challenges

Parallel Processing is Not deterministic.

