

# INTRO

## Recap:

- MIMD's (multiple instruction, multiple data) is made up of distributed memory or shared memory.
  - Distributed memory is when core(s) each have their own memory which is private to only itself but can be shared through a network
  - Shared memory is when core(s) are connected to one global memory where every core can access any memory location
- We are going to look at how to program distributed memory systems using message passing
  - In message passing programs one core memory pair is called a process, and two processes can communicate by the functions: send and receive.
  - We will use MPI (message passing interface) for our implementation of message passing
    - MPI is not a program but a library used in C
    - It has different send and receive functions
    - Has collective functions, which involves more than two processes
- We will also look at some fundamental issues in message passing programs
  - Such as data partitioning, IO in distributed memory systems.