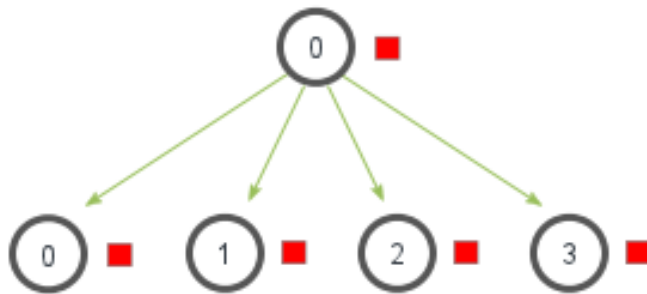


MPI scatter

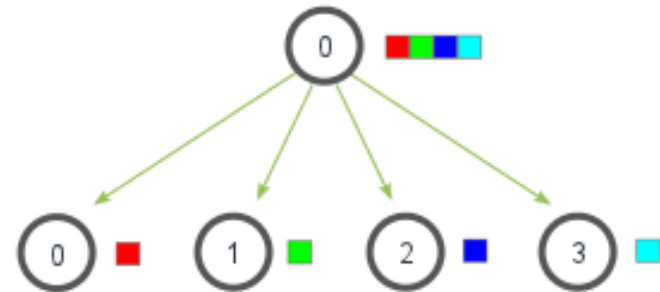
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MPI_Scatter

MPI_Bcast



MPI_Scatter



- › Takes an array of elements and distributes the element in the order of processor rank
- › Collective one-to-many



MPI_Scatter

mpi.h

```
/* Takes an array of elements and distributes the element in the  
order of processor rank */
```

```
MPI_Scatter(  
    void* send_data,  
    int send_count,  
    MPI_Datatype send_datatype,  
    void* recv_data,  
    int recv_count,  
    MPI_Datatype recv_datatype,  
    int root,  
    MPI_Comm communicator)
```

Parameters

- › In/out buf => send_data, recv_data
- › Number of elements => send_count, recv_count
- › Data type (for size) => send_datatype, recv_datatype
- › Sender, context => root, communicator



How to run the examples

Let's
code!

- › Download the Code/MPI folder from the course website

Compile

```
› $ mpicc code.c -o code
```

Run

```
$ mpirun -np <NUM> ./code
```

References



- › "Calcolo parallelo" website
 - http://hipert.unimore.it/people/paolob/pub/Calcolo_Parallelo/

- › My contacts
 - paolo.burgio@unimore.it
 - <http://hipert.mat.unimore.it/people/paolob/>

- › Useful links
 - <https://mpitutorial.com/>

- › A "small blog"
 - <http://www.google.com>