



# Hands on Session: MPI Job Submission

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- MPI description
- MPI job JDL details
- Hands On example

- Message Passing Interface
- A message-passing library specification
  - extended message-passing model
  - not a language or compiler specification
  - not a specific implementation or product
- For parallel computers, clusters, and heterogeneous networks
- Designed to provide access to advanced parallel hardware for end users, library writers, and tool developers

- Currently, there are two standards of MPI:
  - MPI-1
  - MPI-2
- Number of MPI implementations:
  - MPICH (MPI-1)
  - LAM (MPI-1)
  - MPICH2 (MPI-2)
  - OpenMPI(MPI-2)

- MPI-Start – developed by HLRS, is a set of scripts which main advantage is the possibility to detect and use site specific configuration
  - Different MPI implementations on a site are supported:
    - Open MPI
    - MPICH
    - MPICH2
    - LAM-MPI
- JobType=“normal” should be used, so user can submit MPI jobs using wrapper scripts that set up their environment

- Navigate to following address:

[https://http.ipb.ac.rs/documents/glite\\_mpi\\_user\\_guide/](https://http.ipb.ac.rs/documents/glite_mpi_user_guide/)

- Analyze and submit provided MPI Grid job

- Official MPI (Message Passing Interface) standards documents, errata, and archives of the MPI Forum:
  - <http://www.mpi-forum.org>
- Pointers to lots of stuff, including talks and tutorials, a FAQ, other MPI pages:
  - <http://www.mcs.anl.gov/mpi>
- MPI-Start page:
  - <http://www.hlr.de/organization/av/amt/research/mpi-start/>