



# ilifu Online Training – Advanced

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Inter-University Institute  
for Data Intensive Astronomy

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# Data Transfers

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- [http://docs.ilifu.ac.za/#/data/data\\_transfer](http://docs.ilifu.ac.za/#/data/data_transfer)
- **Do not use login node!**
- `transfer.ilifu.ac.za`
  - For `cp`, `scp` and `rsync` (internal ilifu transfers, or external transfers) – e.g.
    - `$ cp -ra /users/$USER/scripts/ /idia/users/$USER/`
    - `$ scp /path/to/file/<filename>  
<username>@transfer.ilifu.ac.za:/idia/users/$USER/scripts/`
- **Globus**
  - Much faster than `scp` and `rsync`
    - A few to 10 Gbps locally (e.g. SARA0 archive, CHPC, local server)
    - 1.2 Gbps to Perth, 5 Gbps to Netherlands (compared to 10s Mbps)
  - Uses dedicated data transfer node (DTN)
  - Checks file integrity and includes similar functionality to `rsync`

# Data Transfers: Globus

- [http://docs.ilifu.ac.za/#/data/data\\_transfer?id=transfer-using-globus-online](http://docs.ilifu.ac.za/#/data/data_transfer?id=transfer-using-globus-online)
- User-friendly globus connect built on top of GridFTP
  - GUI/web app or CLI
- Can connect any arbitrary end points
  - Server (DTN), desktop, etc for Mac OS X, Windows & Linux
  - Offers user-friendly but computationally efficient transfer service



# Data Transfers: Globus

- Globus recommended for larger or more frequent transfers
  - Run background job from user-friendly web app with file browser
  - Avoids fiddling with scp, keeping active connection, and long wait times
- Symbolic links (symlinks) aren't included
  - [http://docs.ilifu.ac.za/#/data/data\\_transfer?id=configuring-a-transfer](http://docs.ilifu.ac.za/#/data/data_transfer?id=configuring-a-transfer)
  - e.g. CASA Multi-MS (MMS)
  - Can be repaired with rsync and “preserve source file modification times”
- Demo!



# THANK YOU

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