



IPv6 Transfer Tests

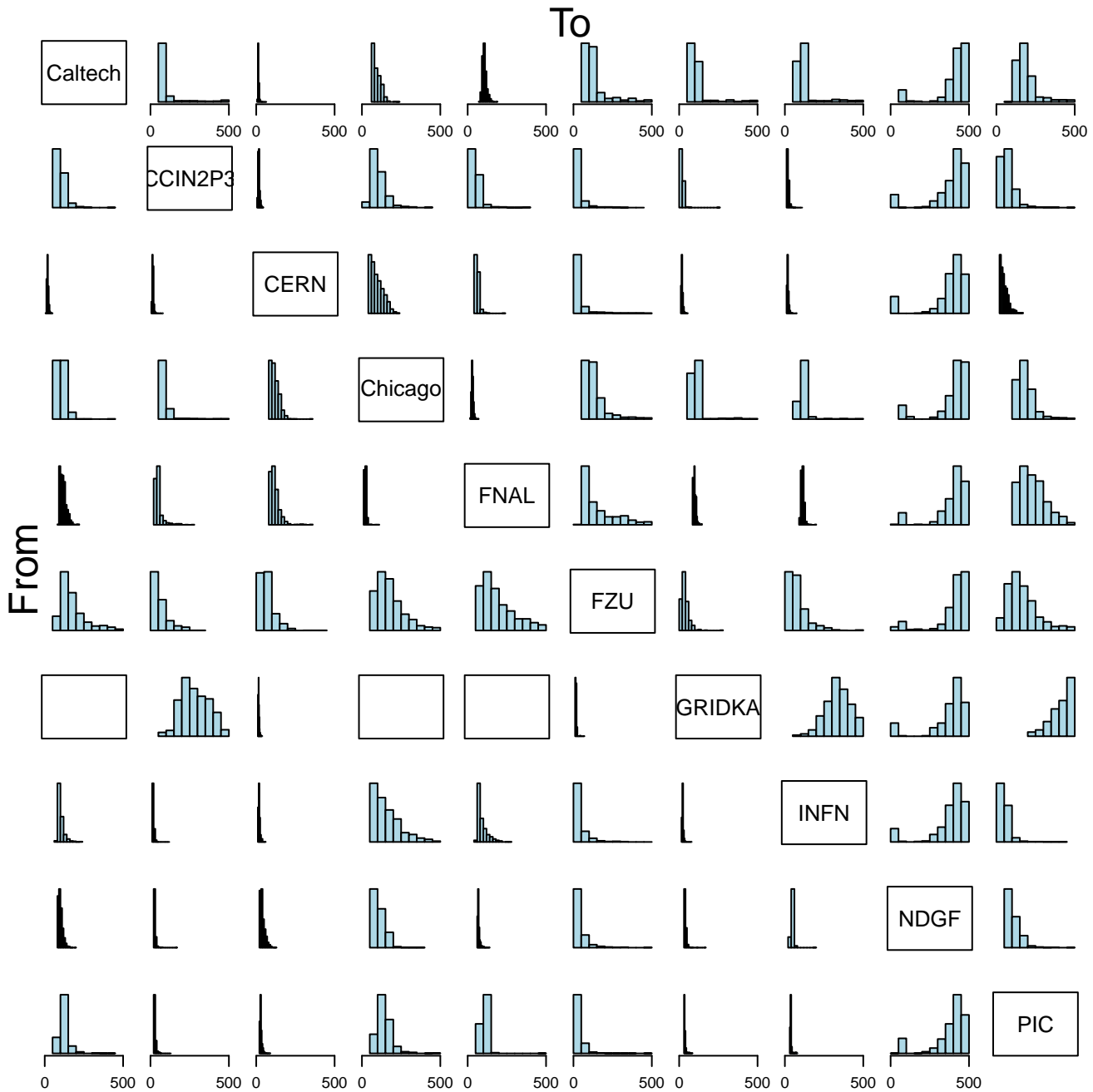
GridFTP and PhEDEx testbeds

GridFTP tests

- Gridftp testbed running ~continuously for 15 months now, plus on-demand before then
 - Each site transfers a 1GB file to every other site using globus-url-copy over IPv6, 3rd-party transfer launched from CERN
 - Filesize is checked and file removed using uberftp over IPv4
 - Caltech, CCIN2P3, CERN, Chicago, DESY, FNAL, FZU, Glasgow, GRIDKA, ~~IHEP~~, ~~Imperial~~, INFN, NDGF, PIC
- Useful for:
 - Checking health of the testbed
 - Verifying software configurations of servers
 - Verifying network routes etc.



- 3.4 PB transferred in total since the start
 - ~5% of CMS Prod+Debug traffic rate
 - Not a high-rate test, have had to introduce delays as more nodes added to testbed
 - Support is best-effort, nobody checks regularly...
- Low cost of getting involved
 - ~20 GB disk, no special s/w to install
 - IPv6 access for gridftp, IPv4 for uberftp
 - Anyone can play – including you!





PhEDEx transfers

- Dual-stack FTS3 server at Imperial
- DPM storage elements at Imperial and Glasgow
- Transfers just worked at production quality!
 - Files deleted automatically on arrival
- Ran for over 2 months, ~120 TB data
- Also tested StoRM @ Imperial
- Trying to set up at PIC (dCache), QMUL(StoRM), Nebraska(bestman+hadoop)



Near future

- Switch gridftp testbed to FTS3
- Expand both testbeds – feel free to volunteer your site!
- Gridftp/FTS3: requirements already given...
- PhEDEx:
 - ~100 GB on an SE, FTS3 transfers
 - Need to install PhEDEx agents (Perl, non-root)
 - No need to be a CMS site
- Eventually
 - keep FTS3 simpler testbed as low-level background
 - Use PhEDEx testbed as for testing SEs and transfer tools



Questions?