

UK QCDgrid status



- data grid running across **5** UK nodes
 - Edinburgh, Liverpool, RAL, Southampton, Swansea
 - Linux PC + **10 TB RAID**, based on Globus 2.4
- basic job submission software developed
- Large SAN connected to QCDOC yet to be integrated – **50 TB**
- Using QDP/Chroma to convert QCDOC data to ILDG format

UK data sharing



- UKQCD and RBC data
 - Small volume configurations
- Available after publication of three papers
 - *Lattice QCD with 2+1 flavour domain wall QCD*
 - *Localisation and chiral symmetry in 2+1 flavour domain wall QCD*
 - *Comparison of the R and RHMC algorithms*
- These papers must be cited

Datasets



β	Action	m_{ud}/m_s	N_{traj}
0.72	DBW2	1	3395
0.72	DBW2	0.5	5000
0.72	DBW2	0.25	2240
0.764	DBW2	1	4000
0.764	DBW2	0.5	2500
0.78	DBW2	1	1620
0.78	DBW2	0.5	1505
2.13	Iwasaki	1	2380
2.13	Iwasaki	0.5	2450
2.2	Iwasaki	1	4565
2.2	Iwasaki	0.5	3175

$16^3 \times 32$

$L_s = 8$

RHMC

$a^{-1} \sim 1.5 - 2.2$
GeV

Future plans: Data



- Production of $24^3 \times 64 \times 16$ DWF IW $\beta=2.13$
 - $m_{ud}/m_s = \{ 1/4, 1/2, 3/4 \}$ (with RBC)
- Production of improved staggered
 - $m_{ud}/m_s = 1/5$
 - $a=0.125\text{fm}$ $24^3 \times 64$ 30K traj
 - $a=0.09\text{ fm}$ $32^3 \times 96$ 20K traj
 - $a=0.06\text{ fm}$ $48^3 \times 144$ 2K traj
- Not available before 6 months after first paper

Future plans: Development



- Integrate ILDG data and Metadata format into QCDOC production codes
- Some limited effort available to present ILDG SRM-like interfaces to client request
 - ILDG compliant middleware will be able to talk to QCDgrid
 - Timescale – no promises!