

Cyprus ILDG report

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CaSToRC

Cypriot lattice QCD community

- **Three institutions with lattice QCD activity**
 - The University of Cyprus (Dept. of Physics)
 - The Cyprus Institute (CaSToRC)
 - Frederick Institute of Technology (Private)
- **Members**
 - 3 Professors
 - 5 Researchers / Post-docs
 - 2 Students

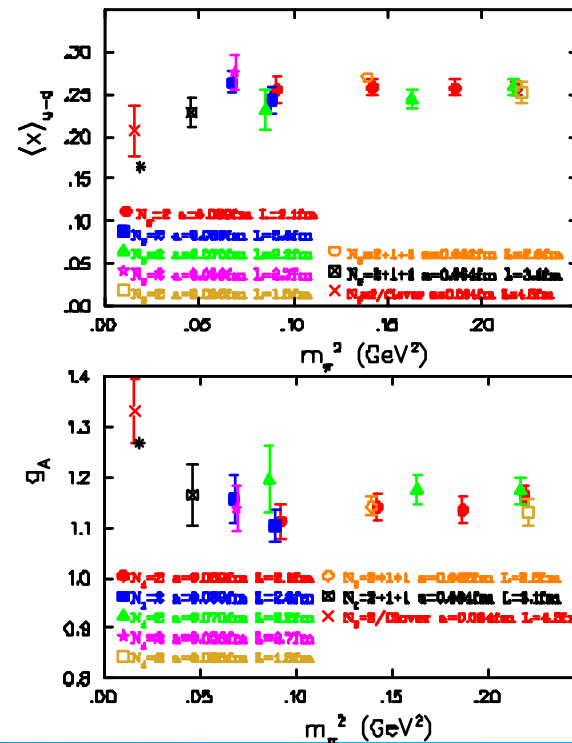
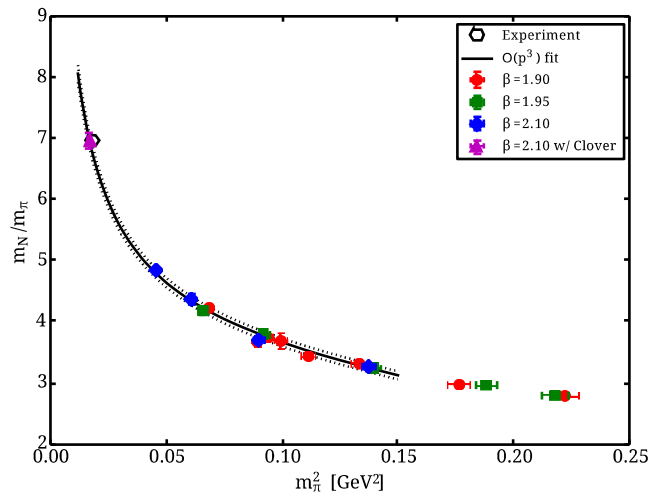
Physics Topics

- **Main research topics**
 - Nucleon/hadronic structure
 - Hadronic spectrum
 - Perturbation theory
- **Analysis of existing gauge configurations**
- **Strong involvement in European Twisted Mass collaboration**

Physics results

- Physical point simulations

- 48c96 lattice, $a \sim 0.095$ fm, pion mass ~ 0.13 GeV
- Ongoing nucleon structure calculations



The Cyprus Institute

- **Main compute resource on island**
 - “Cy – Tera” iDataPlex system
 - 120 dual 6-core Westmere nodes
 - 20 nodes of which have 2 M2070 GPUs each
 - Strong presence of lattice QCD group on machine
- **Runs a joint Simulation Lab with Juelich and DESY – Zeuthen**
- **Cyprus' representative in PRACE**

ILDG Usage

- **For accessing gauge configurations**
 - Mainly ETMC gauge configurations, but also
 - CP-PACS
- **Computer sites:**
 - Local – Cypriot computer site
 - U.S: NERSC
 - PRACE sites (e.g. JSC, CINECA, LRZ)
- **Method of choice**
 - Command – line clients, ltools: ildg-get, lget, etc.

PRACE data EoI

- **“Expressions of Interest for data services connected to large-scale computational projects”**
 - Scientific justification
 - Expected amount of data and time-frame
 - How data will be managed and used
 - Openness and accessibility of data
 - Transfer of data to/from PRACE resources

PRACE data Eol

- **Expressed by SimLab (JSC, DESY, Cyl)**
 - Thanks, input from ETMC, CLS, BMW, QCDSF
- **ILDG brought up as an example of data management solution in QCD community**
- **Some info given:**
 - Every 100 Mio core-hours, $O(100)$ Tbytes of configs
 - At least 5 year storage
 - 100 Tbyte transfers during 2013
- **Request:**
 - Storage for ILDG “closer” to PRACE Tier – 0 machines
 - Tools for access on PRACE machines