

ILDG hands-on experience: OpenLat

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The expressed opinions are mine and mine alone.



*ILDG hands-on workshop,
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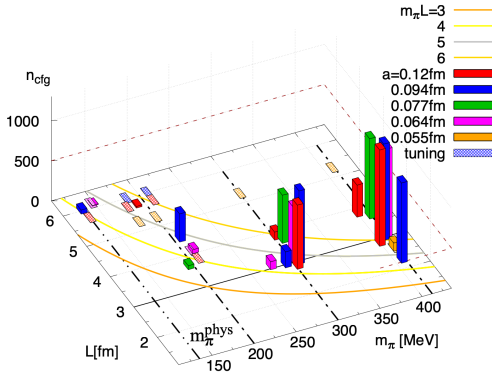
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My personal JLDG story

- In late 2014 I found myself in a difficult situation:
 - I had an idea - and no resources.
 - How did this happen?
 - I had just arrived in new small place after some time in a big collaboration.
 - The new small place was not part of a coll. and had no plans to join one.
 - I managed to obtain a national resource allocation of 100TB storage and $\simeq 400\text{kch}$.
 - This was a generous allocation for them.
 - I had no configurations and also no way of generating them.
 - So I turned to the (I)LDG. Which was largely defunct and didn't have any useful configurations. **But:** There were configurations in the JLDG.
 - I perceived this as a separate entity. (Although I since learned otherwise).
 - They had the configs: Nice range of pion masses, ok lattice spacing, ok volumes. Not state-of-the-art but certainly enough for the purpose.
 - It wasn't easy, but with help from Takumi Doi I managed to download.
 - The calculations on these configs form the backbone of what I consider some of my most important work today.
- ⇒ This experience was my main thought when we founded **OpenLat**. I want:
- For others like me back then to be able to do *the physics*.
 - Be able to do *the physics* on modern gauges.

Gauges in OpenLat



Production plan overview:

Stage 1.: $SU(3)_F$ ($M_{\pi/K} = 412\text{MeV}$). $\simeq 40\text{TB}$ (complete)

Stage 2.: $M_{\pi} = 300\text{MeV}$ and 200MeV . $\simeq 40\text{TB}$ / $\simeq 35\text{TB}$

Stage 3.: $M_{\pi} = 135\text{MeV}$. $\simeq 25\text{TB}$

Currently: $\simeq 140\text{TB}$ (will grow rapidly with smaller M_{π})

*publication of $SU(3)_F$ and $M_{\pi} = 300\text{MeV}$ soon.

Add-to-catalog plan:

Can do the m412 line,
once we sorted out an SE.

Ensemble	Status
a12m412	Ready
a12m300	Ready
a12m200	Tuning
a094m412	Ready
a094m300	Ready
a094m200	Production
a094m135	Tuning
a077m412	Ready
a077m300	Production
a077m200	Production
a064m412	Ready
a064m300	Ready
a064m200	Production
a064m135	Tuning
a054m412	Ready
a054m200	Tuning

*consider only independent cfs in τ_Q .

This workshop

- I am very much in support of the revitalization of the ILDG:
 - as collaboration OpenLat has heavily engaged with the program.
 - the efforts have yielded amazing results.
 - workshops like this are important and useful.
 - it is an integral component for us to share our ensembles with everybody that sees use for them.
- My personal view is all about **access** and **usability**.
- Any access hurdle = an **access barrier**
 - especially important to consider for those as seen as "minor" by developers. They may be "major" for users. No users = no service.
- Embargoed configurations in the catalog are FIR not FAIR.
 - for all **practical purposes they do not exist for the community**.
 - I understand the motivation to have them in the catalog. I am not convinced coll.s will open them more because they're in the catalog.
- User-friendliness is not there yet.
 - Need the tools being developed, e.g. the website searcher and xml creator.
 - The edugain/mdc/fc/se chain takes getting used to and is not simple per se.
 - Counterexample: Just downloaded 1TB of data from the CDS with just a wget. I went to the website, read the displayed info, got the links and downloaded.
- Final point: Can only have configurations. Not auxiliary or other data. Why? Could the ILDG become main library catalogue for all public lattice data?