

Rivet developer & user workshop: intro and talking points

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RIVET WORKSHOP, LUNGA HOUSE, 27 MAY 2019

[HTTPS://INDICO.CERN.CH/EVENT/808138/](https://indico.cern.ch/event/808138/)



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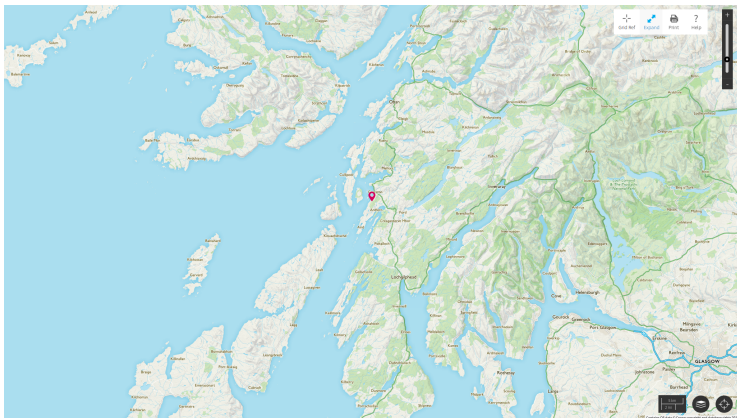
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Welcome to Lunga House, and the 8th (?) Rivet workshop!



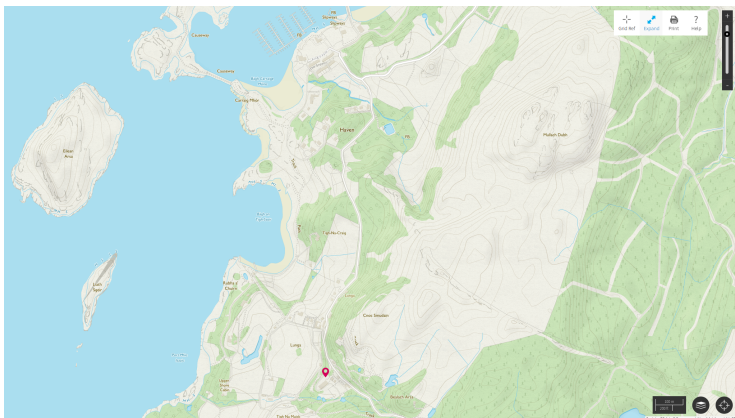
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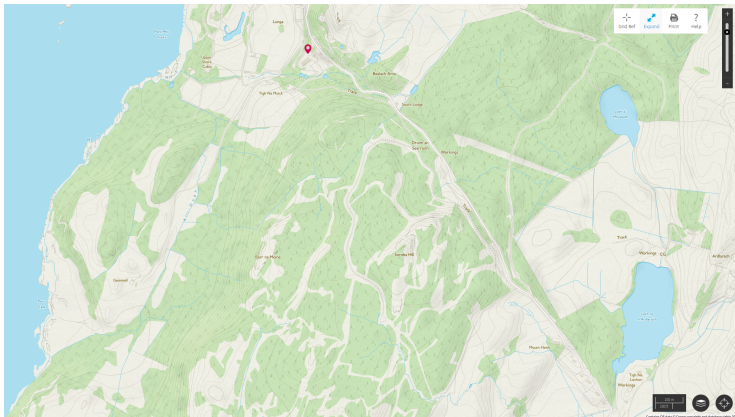
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Here's the deal

- ▶ **Aim:** bring together active movers in the Rivet community, finish some long-term work, start new physics/technical projects & papers
- ▶ **Structure:** talks & discussion in mornings, self-organising working groups in afternoons
- ▶ Everything is provided – I hope you enjoy your time here and we get some nice work done/started
- ▶ Coffee breaks $\times 2$, lunch at 1pm, dinner at 7.30pm
- ▶ **Internet:** far from wonderful, but should be sufficient
- ▶ **Weather:** who knows?! Fingers crossed...
- ▶ Keep a tally of how much you drink and settle up before leaving! Pay me £5 if you want whisky.

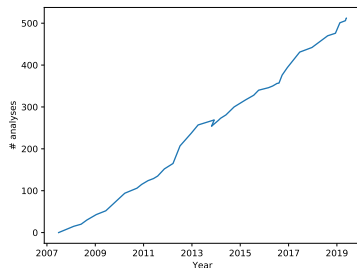
Achievements & failures

Hits:

- ▶ **analysis coverage** reports: more work than anticipated, but very helpful.
- ▶ Several releases, including heavy ion and ep features (cf. workshops)
- ▶ First public re-entrant histogramming and finalize

Misses:

- ▶ Multiweight version 3 still missing: TO BE RESOLVED!
- ▶ HepData (non-)sync still a big issue
- ▶ Lots of outreach & response to BSM, HI, *ep* communities needed



Main topics

- ▶ **Planning:** Release plans (version 3!), experiment/MC requirements & analysis coverage, validation, data infrastructure connections, papers
- ▶ **Core:** performance, multiweights, histogram wrangling, HepMC3, event slimming, speed & thread safety
- ▶ **Statistics:** histogram types, integer binning, replacement plotting & speed, HepData
- ▶ **Physics:** heavy ion observables, ep lepton & frame, dressed lepton definition
- ▶ **BSM:** detector smearing, smearing function specification, cutflow plotting, likelihoods and connections to limit-setting tools, LLPs?

Track & update via [the Google Doc](#)