

CEDAR Xmas Hackathon 2020

Marine Hotel, North Berwick & ZOOM
16-17 December 2020



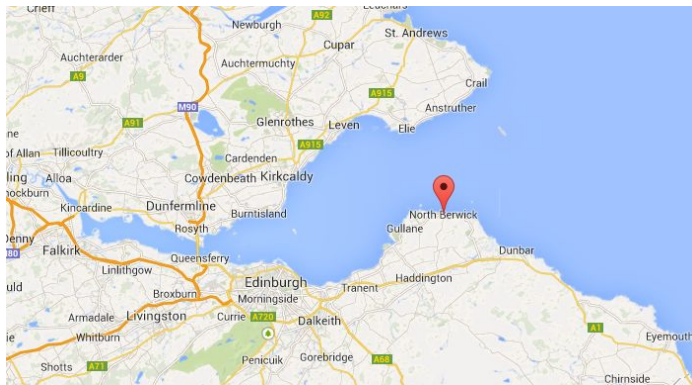
Intro

❖ Welcome to the CEDAR Hackathon 2020

- No, there haven't been any others!
Think of it as a Rivet “Lunga substitute”
- For those here in person, it's likely the first face-to-face meeting since March
- Some Covid-safety & rules info on the next slide

❖ How it'll work

- “Plenary” sessions like this: everyone gathers together (incl ZOOM) to discuss/chat
- Right now: review topics, form working groups
- Next: hack! ZOOM breakouts, Mattermost, [GDoc](#) for in-group communications. Coffees & lunch
- Re-gather for more plenaries (twice a day)



Safety

❖ Welcome to North Berwick

- East Lothian is in Scottish Covid Tier 2
Rules:
<https://www.gov.scot/publications/coronavirus-covid-19-protection-levels/pages/protection-level-2/>
- Generally: sanitize, distance, open space.
Be aware of others' concerns & risk appetites
- Eating & drinking:
 - the hotel procedures should keep us right for breakfast and lunch; later:
 - indoors = last entry at 7pm, finish by 8pm, alcohol only with food
 - outdoors = last entry 9.30pm, finish by 10.30pm, food not required
- ***If we do this well and safely, we'll be allowed a repeat. If not... so behave!***



Science topics

DISCUSS!



Rivet analysis coverage (no searches, no I

Rivet analyses exist for 845451 papers = 35%, 113 priority analyses required.

Total number of Rivet papers scanned = 7260, at 2023-07-02

Breakdown by identified experiment (in development)

Any	ALICE	ATLAS	CMS	LHCb
Rivet wanted (total)	72	111	126	103
Rivet REALLY wanted	17	42	81	9
Rivet provided	1410 ± 14%	13624 ± 8%	77333 ± 18%	13114

Root plot	Root plot
ALICE	ALICE
CMS	CMS
LHCb	LHCb
Forward	Forward
HERA	HERA
e ⁺ e ⁻	e ⁺ e ⁻
12-13	12-13

ATLAS: Measurement of the $t\bar{t}$ production cross-section in the leptonic channel

https://arxiv.org/abs/1802.02444v1 [2018.10.19] Report ID: CERN-EP-2020-086

Links: Rivet CDS arXiv

ATLAS: Measurements of top-quark pair single- and double-differential cross-sections

https://arxiv.org/abs/1801.04344v1 [2018.02.24] Report ID: CERN-EP-2020-083

Links: Rivet CDS arXiv

ATLAS: Measurements of the Higgs boson inclusive and differential fiducial cross-sections

https://arxiv.org/abs/1704.04939v1 [2017.04.09] Report ID: CERN-EP-2020-020

Links: Rivet CDS arXiv

ATLAS: Measurement of the Lund jet plane using charged particles in 13 TeV proton-proton collisions with the ATLAS detector

https://arxiv.org/abs/1702.02618v1 [2017.02.04] Report ID: CERN-EP-2020-020

Links: Rivet CDS arXiv

ATLAS: Measurements of the production cross-section for a Z boson in association with t -quarks in proton-proton collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector

https://arxiv.org/abs/1704.04344v1 [2017.04.09] Report ID: CERN-EP-2020-020

Links: Rivet CDS arXiv

ATLAS: Measurement of isolated photon plus top jet production in pp collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector

https://arxiv.org/abs/1702.02618v1 [2017.02.04] Report ID: CERN-EP-2020-020

Links: Rivet CDS arXiv

AT-drop jet observables in pp collisions with the ATLAS detector at $\sqrt{s} = 13$ TeV

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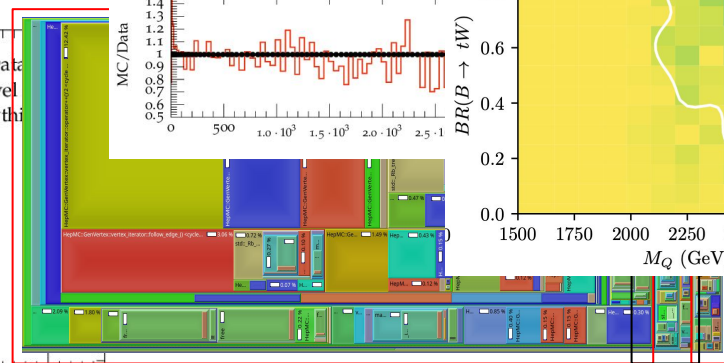
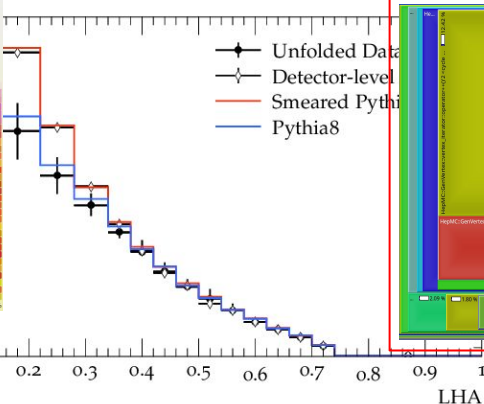
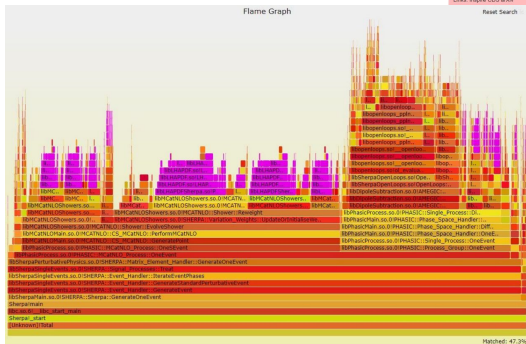
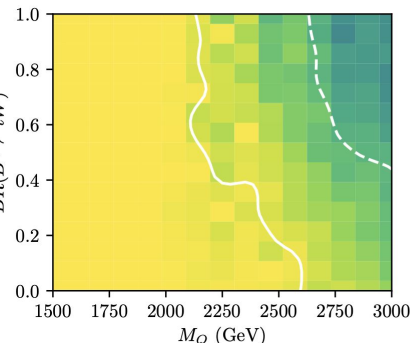
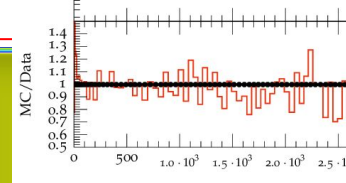
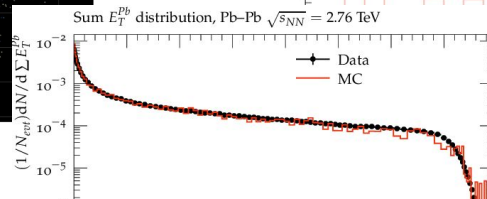
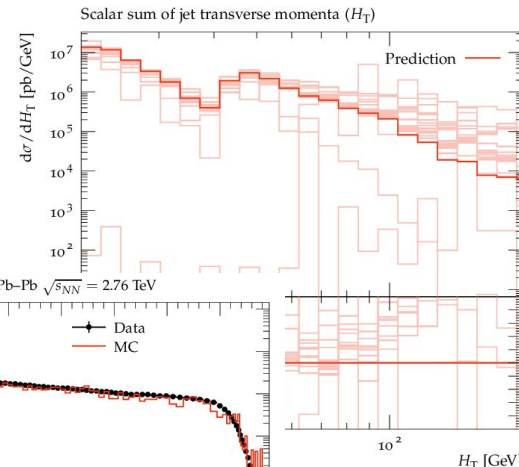
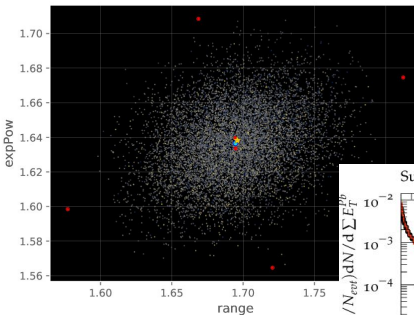
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HepMC

Rivet FJ