Activities ongoing

CMS:
- Vector Boson Scattering ssWW analysis in hadronic tau and light lepton (*INFN e Univ. Perugia*);
- Heavy Neutral Lepton search on heavy neutrinos in the D_S decays (*INFN e Univ. Bologna*); Joint WP2 meeting (2 May)
  - Studies for performance comparison speed-up, using in-site metrics and RDF monitoring, talk WP5 (3 Nov);
- Search of rare events in τ→3μ (*INFN e Polit. Bari*). Explorative phase with RDF, currently porting the old ntupliser to flat data format.
- Continuous Integration pipeline, triggering analysis execution on AF (*INFN, Firenze*)
- top quark+MET analysis (*INFN e Univ. Napoli*). Still in an explorative phase, talk WP5 (24 May);

ATLAS:
- Search for new phenomena in events with two opposite-charge leptons, jets and missing transverse momentum (*UniSalento e INFN Lecce*). *Currently in a joint effort with INFN e Univ. Napoli.*
- *UniCal*: possible applications within several subjects: top physics, flavour tagging, trigger analysis.

Future colliders:
- Feasibility studies started on FCCee pseudo-data (*INFN e Univ. Napoli*), exploiting Naples facility. Approach already adopting *Dask, Jupyter and ROOT RDataFrame*. talk WP5 (13 Oct).

LHCb:
- Survey still ongoing (planning to contact more institutions). If someone is interested to the UC activities, please contact us!

Milestone 7 report document

Milestone 7 (deadline 26 Feb):

- Section 2 TAR2.6 Intermediate report is **complete** (finalizing some comments). It is included in our workflow document.

Milestone 7 (February 2024)

Intermediate report End of October 2023:

. . .

MS7 Final Report:

. . .

News from WP5

- No WP5 meeting after our previous news report. No news to report.

A reminder:

- An early-access version of high rate platform is now available, and users can start to play and help developers with feedbacks and bug reports. Talk WP5 (2 Feb 2024)
  - **Entrypoint**: https://hub.192.135.24.49.myip.cloud.infn.it
- The creation of the documentation has started. The official URL is: https://icsc-spoke2-repo.github.io/HighRateAnalysis-WP5

Included in tracking document

Talk done:
- Workshop sul calcolo nell'INFN (CCR): 22-26 May 2023 (Loano, IT) link
  - *Esperienza di un'analisi dati CMS nell'INFN 'Analysis Facility' framework* (T.Diotalevi)
- ECFA Workshop on physics at e+e- Higgs/EW/Top Factories: 10-13 October 2023 (Paestum, IT) link
  - *Benchmark interactive analysis for future colliders* (A. D'Onofrio)

Abstract accepted:
- ACAT: 11-15 March (Stony Brook, USA) link
  - Poster: *Quasi interactive analysis of High Energy Physics big data with high throughput* (submitted by PIs)
  - Poster: *Declarative paradigms for analysis description and implementation* (submitted by P.Mastrandrea)

Abstract submitted:
- IFAE: 3-5 April (Firenze, IT) link
  - *Analisi quasi-interattiva per big data con alto throughput per la Fisica delle Alte Energie* (speaker TBD)
- ICHEP: 18-24 July (Prague, CZ) link
  - *Enhancing CMS data analyses using a distributed high throughput platform* (submitted by T.Diotalevi)
  - *Benchmarking distributed-interactive HEP analysis workflows on the new Italian National Centre analysis infrastructure* (submitted by A. D'Onofrio)

KPI – Key Performance Indicator

KPI ID	Description	Acceptance threshold	Status
KPI2.2.2.1	Implementation of N data analyses in the AF	$N \geq 2$	>50%
KPI2.2.2.2	Reference documentation of the AF	≥ 1 dedicated web site	Complete
KPI2.2.2.3	Hands-on workshops for AF users	≥ 1 workshops	0%
KPI2.2.2.4	Scaling up the testbed AF infrastructure, serving k tenants, for a total of N data analyses	$\geq (200 \cdot M)$ cores	Waiting for resources (RAC request approved)
KPI2.2.2.5	Talks at conferences/workshops about AF activities	≥ 1 talk	Complete

Thank you

cn1-spoke2-wp2-analysisfacility@lists.infn.it   (click here to subscribe or get in touch in case of issues)