CroRIS Tool

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CROHEP Meeting
February 18, 2025

A bit of context…

- Members of the Croatian academic community required to record their publications in CroRIS* (it used to be CROSBI up to summer of 2023)
- Having publications recorded in CroRIS is an important performance indicator for research institutions, relevant for program funding, etc.
- Recording publications from large collaborations even for a single year can become a formidable task

*Croatian Research Information System

and a bit of history

- Several years ago the CMS group at RBI started developing an automation tool for this task
- This eventually resulted in the development of the CROSBI tool
- Command-line Python-based tool that was opening CROSBI's new publication web form in a web browser and filling in the publication data, essentially emulating in an automated way what a human would manually do
- The tool served us well but the whole process was a bit fragile
  - Very sensitive to even minor changes in CROSBI's web form
  - Unexpected lags in communication with the CROSBI server occasionally resulted in certain steps timing out so the tool had to be restarted
  - Dependent on external software libraries whose long term availability could not be guaranteed

New CroRIS era

- With the introduction of CroRIS, the old CROSBI tool became useless
- Natural point to develop a new CroRIS tool
  - Development done in close communication with CroRIS admins and developers from SRCE and RBI's Centre for Scientific Information
- CroRIS tool produces a JSON file containing all necessary publication data that is then sent to the CroRIS system admins for import
- From the beginning written having in mind possible use cases outside the CMS community. Could also be interesting to theorists

Example JSON* output


```
[
  {
    "tip": 760,
    "status": 965,
    "suradnja_medjunarodna": "D",
    "recenzija": {
      "status": 900,
      "vrsta": 903
    },
    "ppg": [
      "1",
      "1.02",
      "1.02.02"
    ],
    "doi": "10.1016/j.physletb.2023.138389",
    "autor_string": "Tumasyan, Armen ; ... ; Giljanović, Duje ; Godinović, Nikola ; Lelas, Damir ; Puljak,
    Ivica ; Antunović, Željko ; Kovač, Marko ; Šćulac, Toni ; Brigljević, Vuko ; Chitroda, Bhakti Kanulal ;
    Ferenček, Dinko ; Mishra, Saswat ; Roguljić, Matej ; Starodumov, Andrey ; Šuša, Tatjana ; ... ; Bargassa,
    Pedrame ; ... ; Đurić, Senka ; ... ; Zhokin, Alexander",
    "autori": [
      {
        "croris_id": 34122,
        "oib": null,
        "mbz": null
      },
      {
        "croris_id": 14717,
        "oib": null,
        "mbz": null
      },
      {
        "croris_id": 27649,
        "oib": null,
        "mbz": null
      },
      {
        "croris_id": 4129,
        "oib": null,
        "mbz": null
      },
      {
```

```
        "mbz": null
      }
    ],
    "kolaboracija": "CMS Collaboration",
    "godina": "2024",
    "issn": "0370-2693",
    "e-issn": "1873-2445",
    "volumen": "850",
    "broj_rada": "138389",
    "ukupno_stranica": "13",
    "ml": [
      {
        "jezik": "en",
        "trans": "o",
        "naslov": "Measurements of azimuthal anisotropy of nonprompt D$^0$ mesons in PbPb collisions at $\
        \sqrt{s_\\mathrm{NN}}$ = 5.02 TeV",
        "sazetak": "Measurements of the elliptic ($v_2$) and triangular ($v_3$) azimuthal anisotropy
        coefficients are presented for D$^0$ mesons produced in b hadron decays (nonprompt D$^0$ mesons) in
        lead-lead collisions at $\\sqrt{s_\\mathrm{NN}}$ = 5.02 TeV. The results are compared with previously
        published charm meson anisotropies measured using prompt D$^0$ mesons. The data were collected with the
        CMS detector in 2018 with an integrated luminosity of 0.58 nb$^{-1}$. Azimuthal anisotropy is sensitive
        to the interactions of quarks with the hot and dense medium created in heavy ion collisions. Comparing
        results for prompt and nonprompt D$^0$ mesons can assist in understanding the mass dependence of these
        interactions. The nonprompt results show lower magnitudes of $v_2$ and $v_3$ and weaker dependences on
        the meson transverse momentum and collision centrality than those found for prompt D$^0$ mesons. The
        results are in agreement with theoretical predictions that include a mass dependence in the
        interactions of quarks with the medium.",
        "kljucne_rijeci": "High energy physics ; Experimental particle physics ; LHC ; CMS ; Heavy ions ; QPG ;
        Flow ; Heavy flavor ; D0: hadroproduction ; angular distribution: anisotropy ; decay: angular
        distribution ; quark: interaction ; D0: transverse momentum ; anisotropy: measured ; heavy ion:
        scattering ; lead ; mass: hierarchy ; D0: decay ; triangulation ; elliptic flow ; path length:
        dependence ; mass dependence ; CERN LHC Coll ; experimental results ; 5020 GeV-cms/nucleon"
      }
    ],
    "ustanove": [
      {
        "croris_id": 114,
        "mbu": null,
        "uloga": 941
      },
      {
```


*Follows specifications of the CROSBI API of CroRIS

How to get the CroRIS tool?

CroRIS tool

A tool for uploading publication entries to the CroRIS database. The instructions below were tested on Ubuntu 20.04 but might also work on other Linux distributions. The tool has been derived from an older CROSBI tool which is no longer in use.

Please note that this tool relies on the Inspire HEP database to fetch all the necessary publication data and, as such, is primarily targeting publications in branches of physics well covered by that database.

Getting started

Installation

```
virtualenv -p python3.8 croris-env
source croris-env/bin/activate
git clone https://github.com/ferencek/CroRIS.git
cd CroRIS
pip install -r requirements.txt
```

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How to get the CroRIS tool?

- Anyone interested in using the tool should follow instructions in the ReadMe file
- The tool originally hosted on CERN's GitLab. To allow reaching and supporting a wider user community, created a GitHub repository that is mirrored back to the GitLab repository
- Feel free to fork the repository and contribute back using GitHub pull requests
- Any feedback is welcome!