CAT development 2026

Taking care of our CAT



Bugs & enhancements

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16 - References exports for refsdb

References export for RefsDB has been implemented. The work was completed over a year ago and is awaiting Josh to validate and apply final modifications. Once validated, the loop can be closed. Until then, the feature remains staged for final checks and integration.

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21 - Repeated affiliations in final authors index

The affiliation deduplication logic in the author aggregation was insufficient due to legacy vs multiple affiliations fields.

Solution

- Use the `multiple_affiliations` field if non-empty
- Otherwise, if the legacy `affiliation` field exists → splits by `;` and produces a `set`.

25 - Wrong list of authors with manually changed names.

Non-CAT issue, but related to the various places names are stored in Indico.

Solution

Fix under "Participant roles", not in the contribution. The latter creates an override on the person link (i.e. only within that contribution) instead of the person itself (affecting all contributions etc. that person is linked to in the event).

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26 - Wrong authors list caused by duplicate authors in Indico.

Cause

The same physical author can have different email addresses in Indico depending on the contribution they submitted with. Since the author ID in MEOW is derived from the email slug (`slugify(email)`), different emails produce different IDs for the same person.

Solution

Correct the data directly in Indico: consolidate the author under a single email/account before regenerating the proceedings. For authors without email, add the email address in Indico.

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27 - Optimise size of `brief` / `volume` PDFs

Problem

The `brief` and `volume` PDFs generated by CAT at the end of the proceedings pipeline were larger than necessary.

Volume	Size reduction
Brief	≤60%
Full	≈20%

Solution

Added a **new distinct step** (`optimize_proceedings_pdfs`) in the proceedings generation flow, to optimise and linearize with `pyMuPDF`

Additional problem

- Optimisation of IPAC'26 pre-press was not working, possibly due to out-of-memory errors.
- Thanks to some automated tests, the problem was identified and a MEOW PR created - MEOW#31
- Now the files are compressed by `pyMuPDF` and then linearised by `qpdf` (new versions without bugs)

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28 - Wrong copyright statement URL & 29 - Correct DOI registration fields + data validation

- Correct the copyright statement source and template (regression).
- Add validation checks for DOI input fields before registration to prevent malformed entries.
- Run pre-DOI submitssion checks to ensure all fields are valid.

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32 - Only one paper (TUAG005) present after "Cruz, J" in the list of authors. The other one (TUCR001) is missing.

Affected (noticed in) ICALEPCS'25 & MEDSI2025

Cause

CAT using the Central Repository (the database of accounts in Indico) vs the `eventperson` (the profile of a person in an event)

Solution

Fix applied on May 5 2026.
Staffan and Kent were asked to re-create the proceedings and check.
No reaction, issue closed on October 7

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35 - Synchronisation of metadata for duplicated contributions

- Guarantees consistency among "duplicated" contributions (e.g.: student posters).
- Dynamically done in MEOW, no data modification in Indico.
- Switch to disable this in PURR.

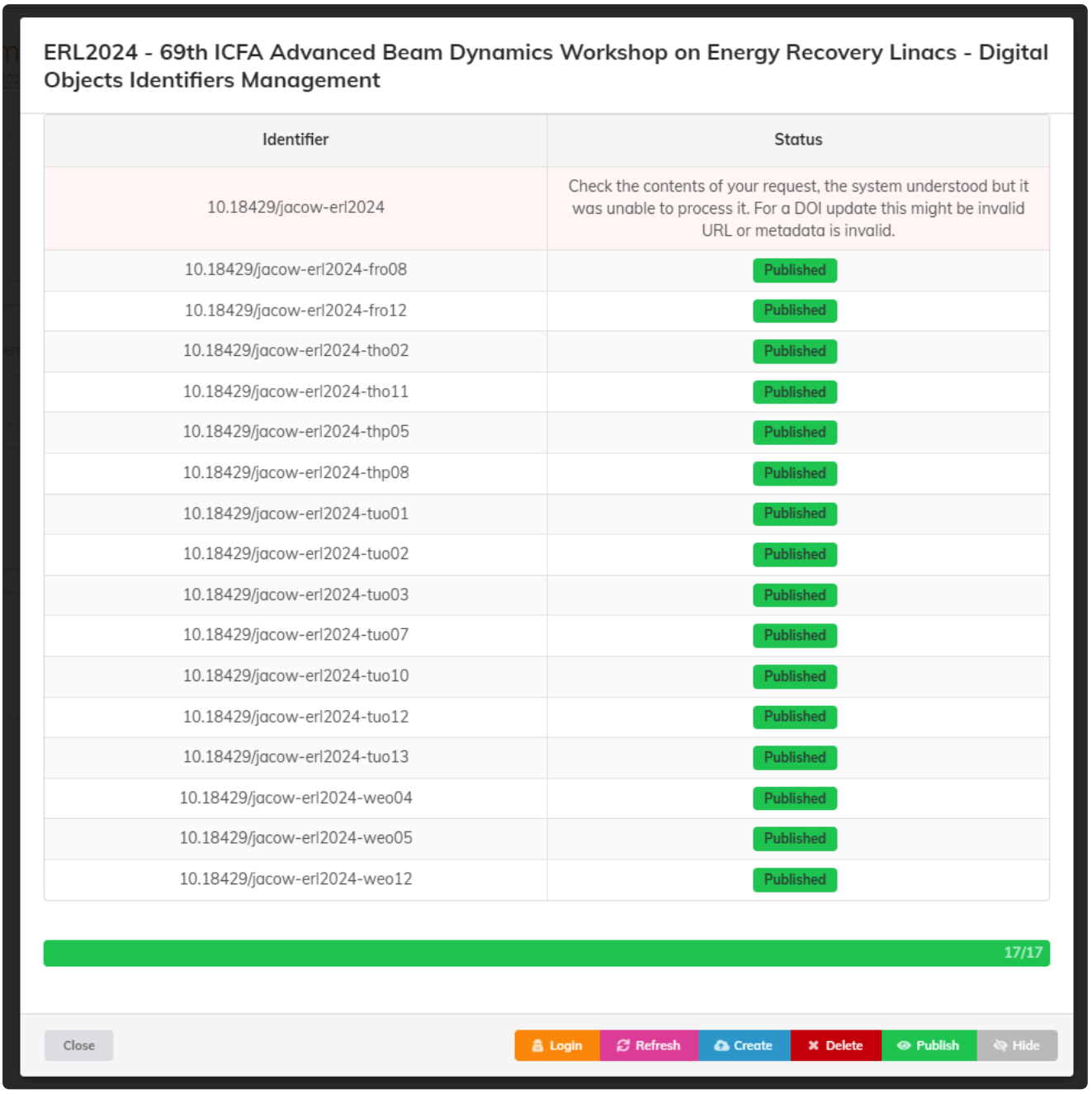
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38 - Parametrise the `CAT_preprint_marking` field in PURR

New in IPAC'26, on-demand "pre-print" stamp on proceedings.

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39 - Registration of the conference DOI fails in PURR



Fixed (regression? DataCite changes?)

The registered `nameIdentifier` actually is not a person identifier. It could be possibly improved by using the ORCID for the editors. To be discussed for a possible new issue release.

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33 - Missing wrapping for four papers in the proceedings volume.

Tricky to find out the issues and to solve, since the cause it's not being identified yet. Still under active work.

References

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31 - bibtex reference key with a space

`@inproceedings{cruz miranda:icalepcs2025-tucr001`
to
`@inproceedings{cruz-miranda:icalepcs2025-tucr001`

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36 - wrong latex command (\url instead of \doi) in proceedings page

Waiting for full CAT-generated references review from the Template WG.

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34 - Proceedings RIS Data Issue

By MEDSI 2025

- Missing ED (Editor) and KW (Keywords) in contribution's RIS
- Missing full institute RIS' export

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37 - Google Scholar compatibility: add Highwire citation metadata and crawlable publication links to contribution landing pages

Not a clear specification of the fields, reproduced what JPSP used to add.

MEOW PRs worth sharing

8 - Modifications to allow preprint marking

By Nicolas... originally not tested, hack by Ivan to have it work, then enhanced by Akera with #9.

9 - fix: preprint marking request was never applied

Fixes the PR above. Used the offline tooling (see below).

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27 - Add Highwire/Dublin Core citation metadata to DOI landing pages (CAT#37)

Contains details of the implementation.

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28 - Add Indico mock and offline abstract booklet test (#17)

Allows for automatic tests of new releases (PRs) by comparing proceedings created with pre/post PR code.

29 - Add Indico snapshot crawler for faithful test fixtures (#17)

Crawls real data from an Indico event to test the PRs to.

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30 - Add pre-press and final proceedings tests with fakeredis (#17)

Performs consistency checks between generated files, so they work with any event.

MEOW enhancements to be discussed

Enhancements to ease shared development

- New tools, partially for license issues (Redis -> ValKey, many tools -> `uv` and `ruff`)

- `systemd`, logging, monitoring (dashboard), backup & restore
- hugo -> jinja2 template system only (could simplify code and maintenance)
- full coverage of automatic testing

- Create a repository of fixtures (export of some conferences to static data) / feature in PURR to create the fixture and export it.
- pipeline of creating the proceedings from a dashboard from the fixtures -> pipeline gitlab, automate the publishing to proceedings.jacow.org.
- pipeline for meow deployment on meow.elettra.eu