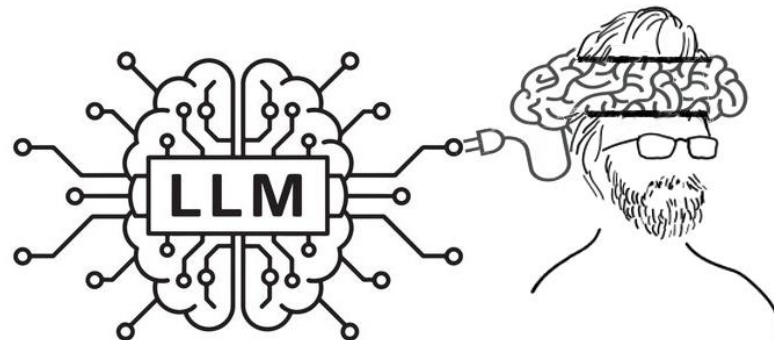




Meeting EPICS management and Analysis with Python (maybe with the help of LLM)

Alexis Gaget IRFU / DIS /LDiSC





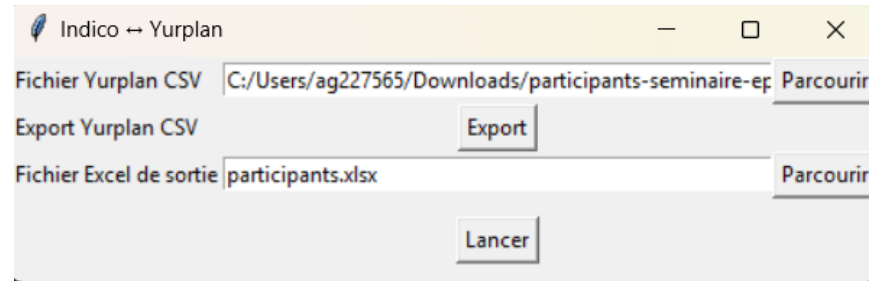
1 ■ Registrations

Registrations

- Registrations on indico
- Payment on Yurplan



We needed a tool to correlate Indico registrations and Yurplan payment



=> « My favorite LLM, please!! I don't have time!! I need to accelerate particules, help me create this script in python with a simple GUI »:

- Indico API to automatically request participants information.
 - Need a indico API Token
 - LLM not very good at giving correct API request, I had to find myself correct request.
- Extract information from a csv exported from Yurplan (download link)
 - LLM very good at that
- Correlate informations and extract result in a excel file.

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
	Name	Email	Status	Prix	Training Session	Droit à l'image	Welcome drink	Workshop jeudi	Workshop vendredi	Dinner	dinner choice	Visit	Farewell drink	Montant payé	commentai
0	Esteban Rubio	rubio@physi.uni-heidelberg.de	complete	150	0	1	1	1	0	0	0	0	0	0	1
1	Olivier Zimmermann	ozimmer@lpsc.in2p3.fr	complete	220	0	1	0	1	1	1	1 Vegetarian	0	0	0	2
2	Julien MARPAUD	julien.marpaud@lpsc.in2p3.fr	complete	220	0	1	0	1	1	1	1 Standard	0	0	0	2
3	Antoine BACK	antoine.back@ijclab.in2p3.fr	complete	0	0	1	0	1	0	0	0	0	0	0	0
4	Zoltán Balázs Runyó	zoltan.runyo@eilabs.com	complete	220	0	1	1	1	1	1	1 Standard	0	0	0	2
5	Musshca BADINGA	musshca.badinga@ganil.fr	complete	150	1	1	0	1	1	1	0	1	0	0	1
6	Kristóf ELI	kristof.eli@fomatom.com	complete	220	0	1	1	1	1	1	1 Standard	0	0	0	2
7			unpaid	150	0	0	1	1	1	1	0	1	1	0	0
8			unpaid	220	0	1	1	1	1	1	1 Standard	0	0	0	1
9			unpaid	220	1	1	1	1	1	1	1 Standard	1	1	0	0
10			unpaid	150	0	1	0	0	0	0	0	0	0	0	0
11			unpaid	0	0	1	1	1	1	1	2 Standard	1	1	0	0
12			unpaid	150	0	0	1	1	1	1	0	1	1	0	0
13			unpaid	220	0	1	1	1	1	1	1 Standard	1	0	0	0
14	TOTAL			23580	42	141	120	137	125	112	0	96	46	0	

Registrations

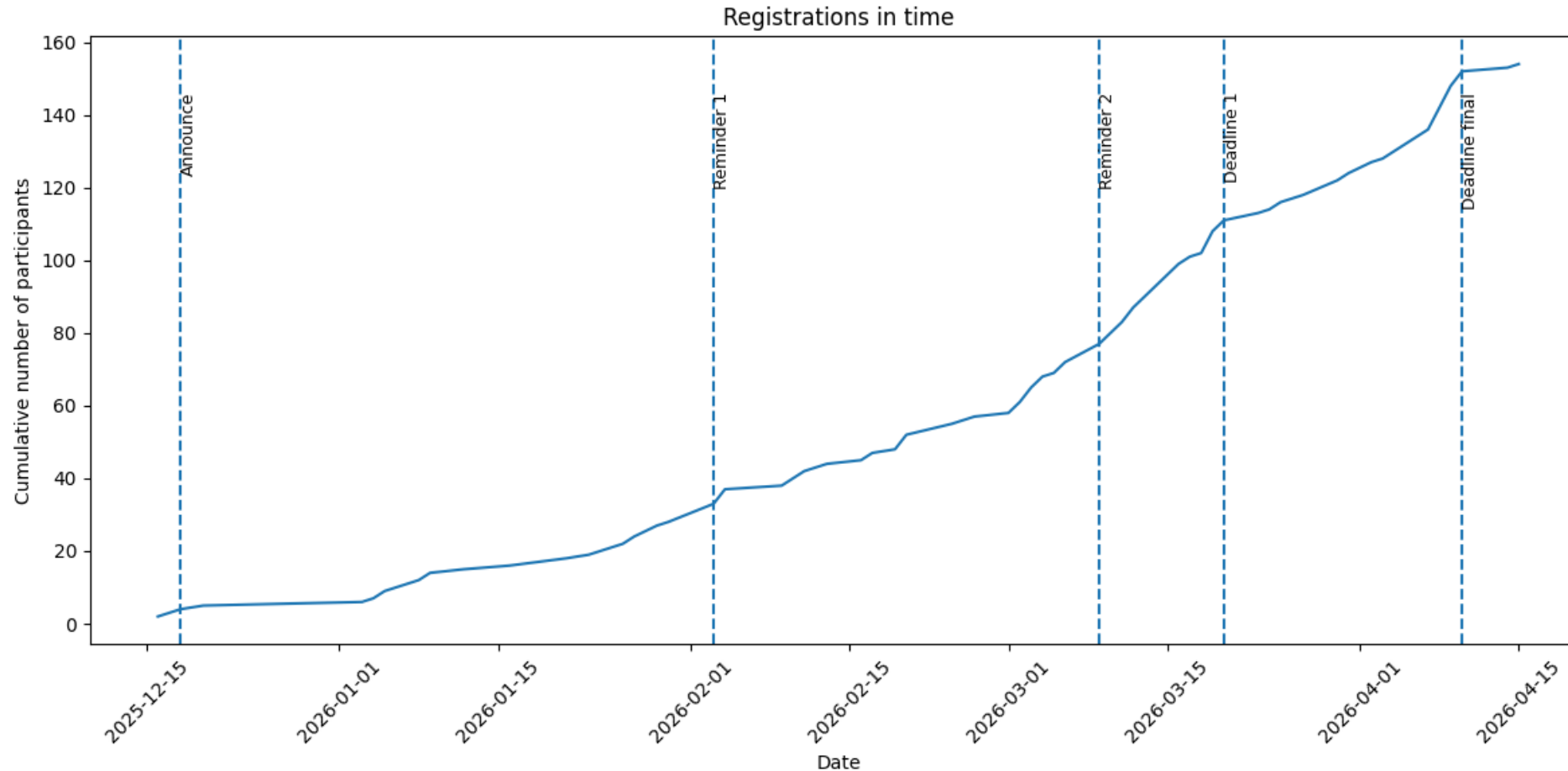
What LLMs (or me) can't foresee ? humans behavior

- Peoples who just pay but did not register (very generous of you 🖤) 😊
- Peoples who registered only for the workshop without registering for the conference (nor paying the fees, less generous of you 🖤) 🧡
- Peoples with multiple first names (too many ? Who am I to judge) 🧡
- Peoples that withdrew (but still appearing in yurplan) 🧡
- Yurplans changing its CSV format and it's website UI around February, so the python script was no longer able to export it automatically ...



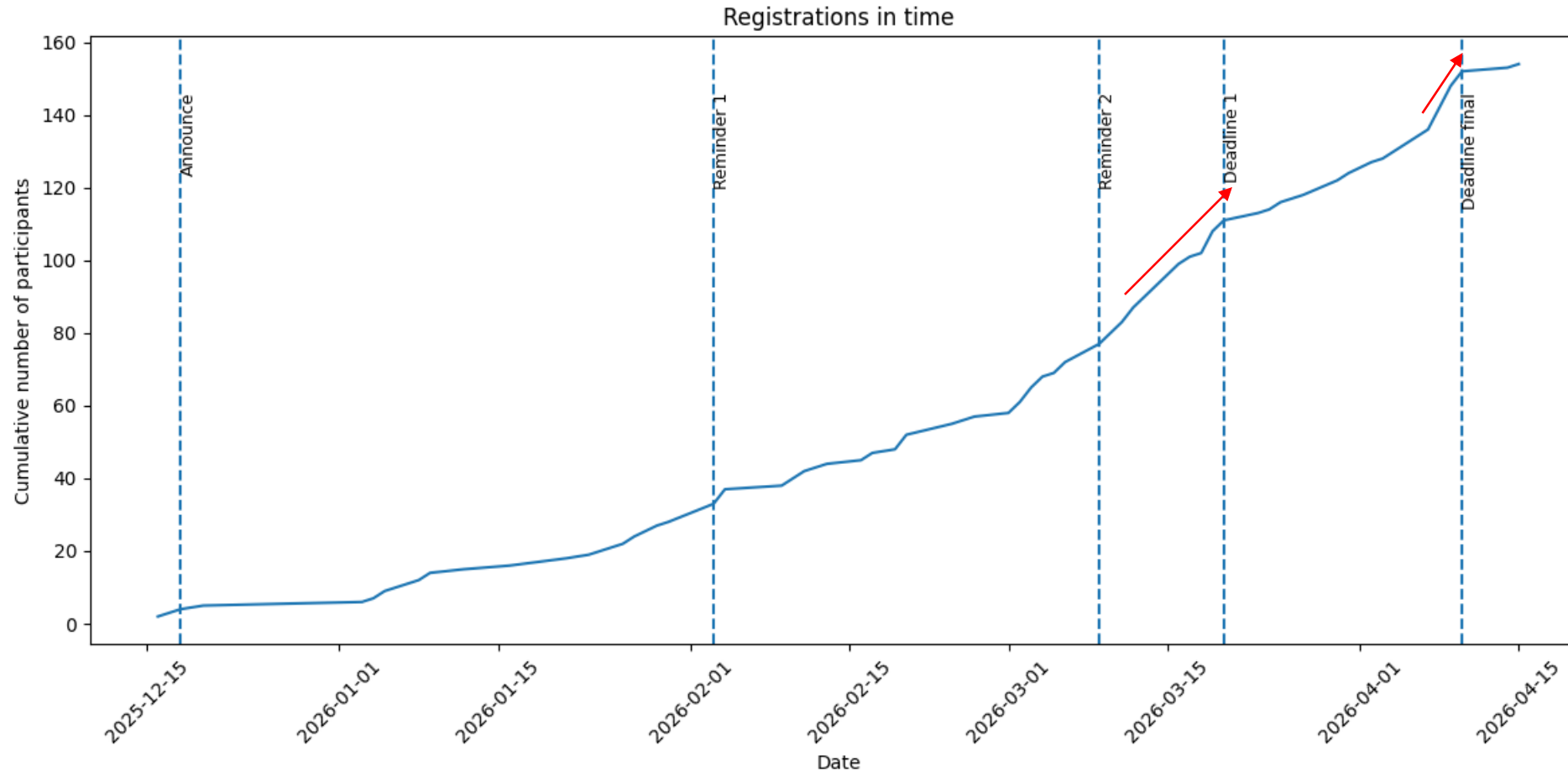
Registrations

- Another independant script provides some statistics on registrations
 - Indico API request then JSON extraction and analysis.



Registrations

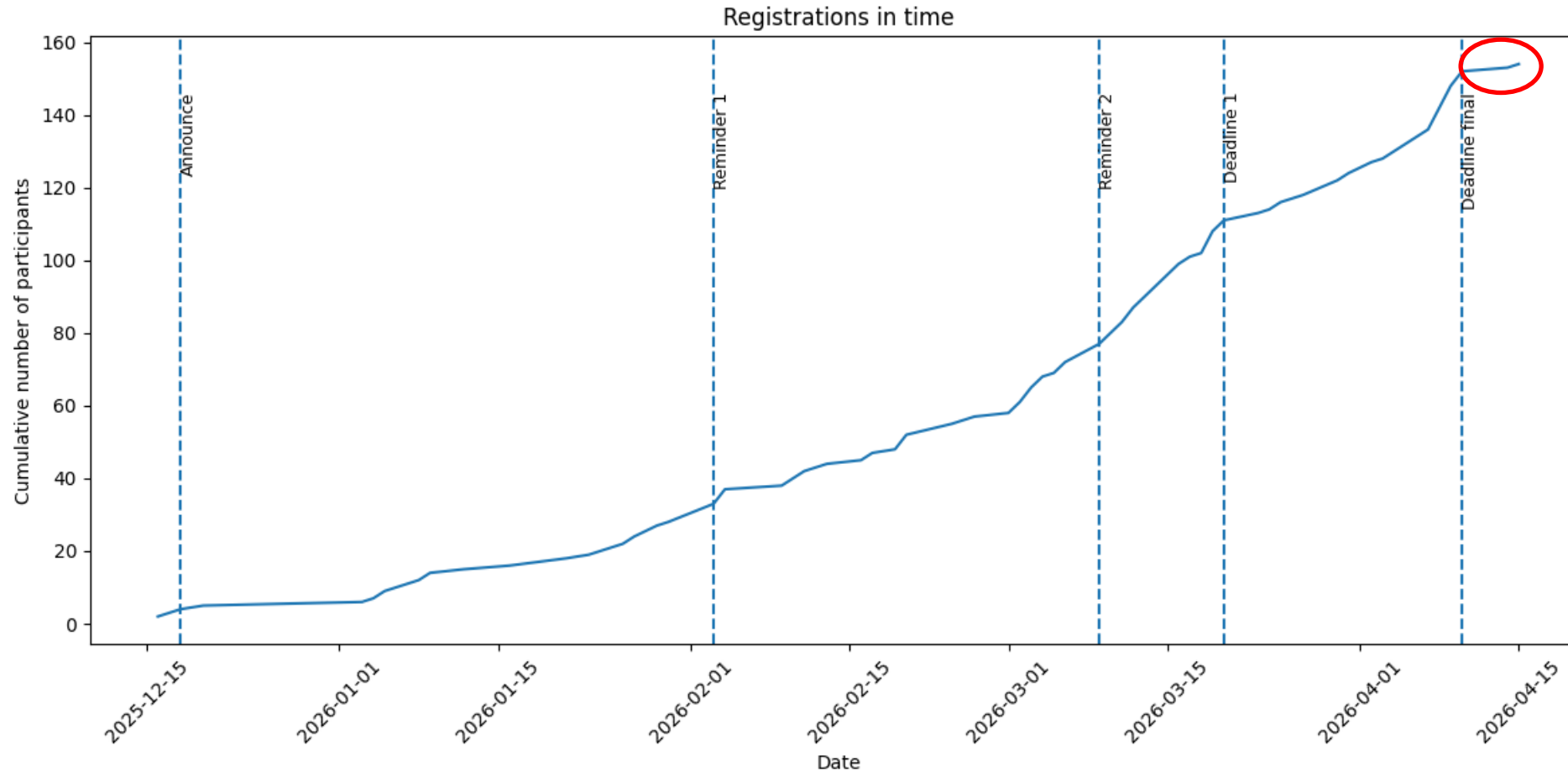
- Another independant script provides some statistics on registrations
 - Indico API request then JSON extraction and analysis.



Deadline effect 😊

Registrations

- Another independant script provides some statistics on registrations
 - Indico API request then JSON extraction and analysis.

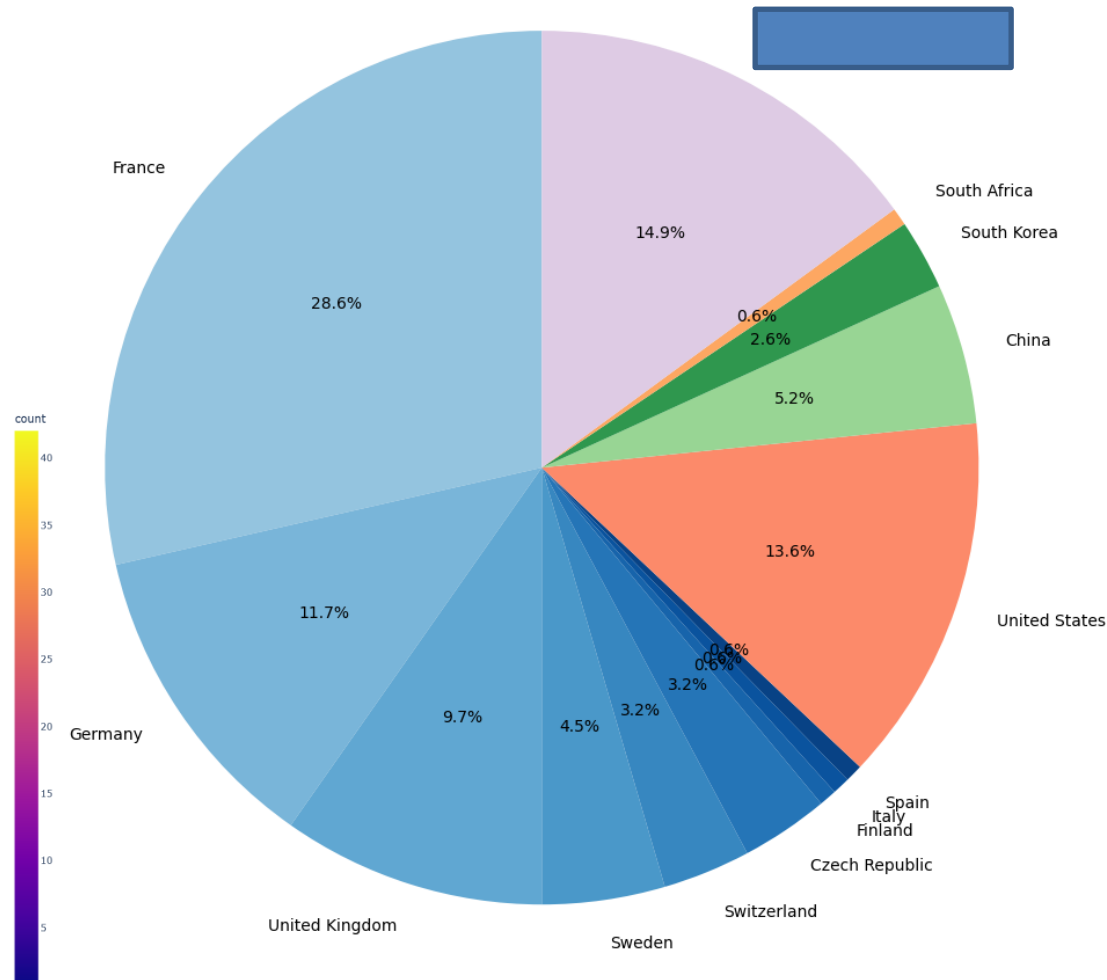
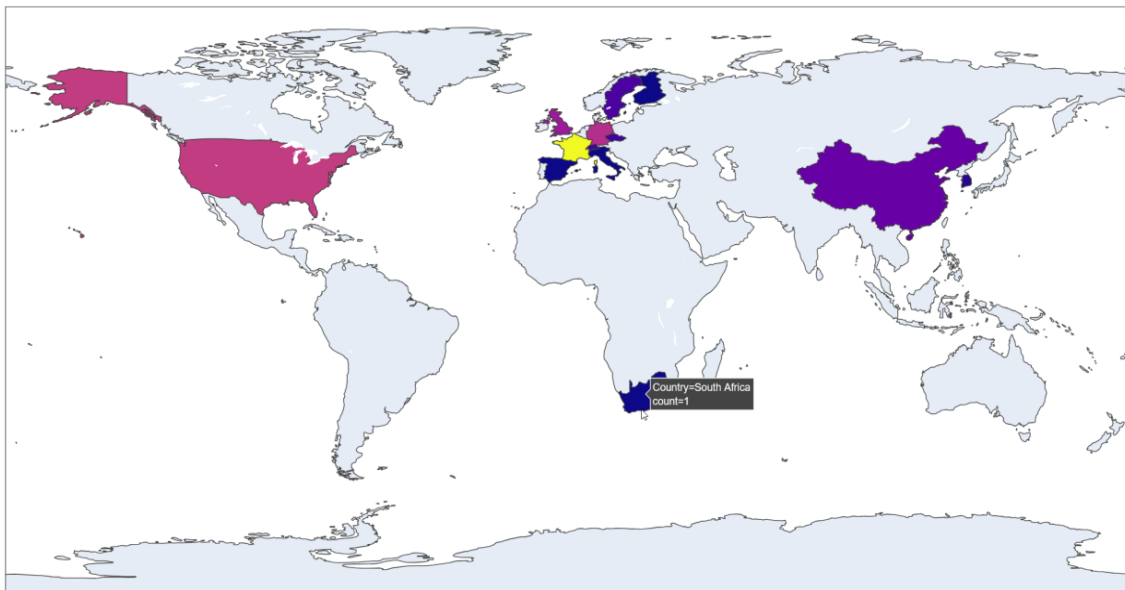


Line not so dead

Registrations

- Interactive map and country pie:
 - Indico API request then JSON extraction and analysis.

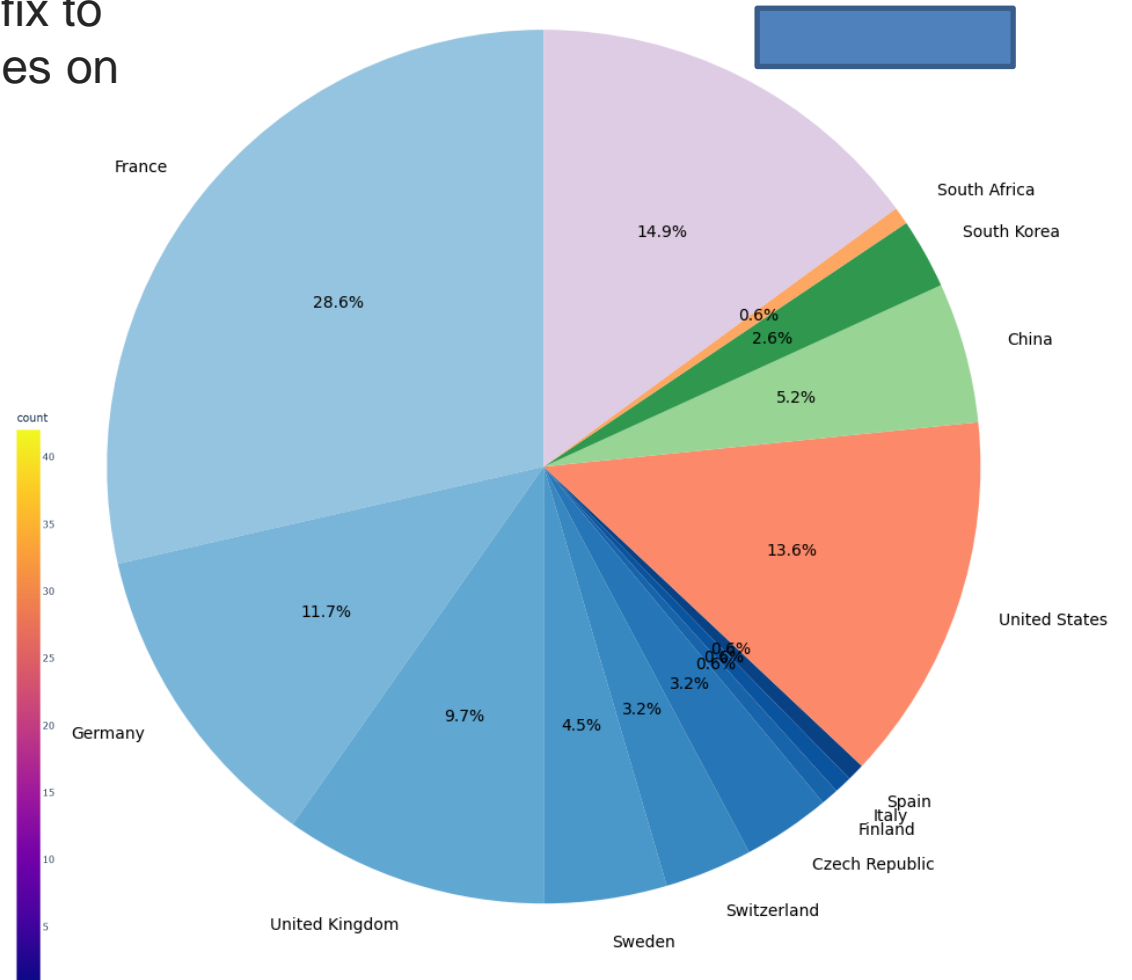
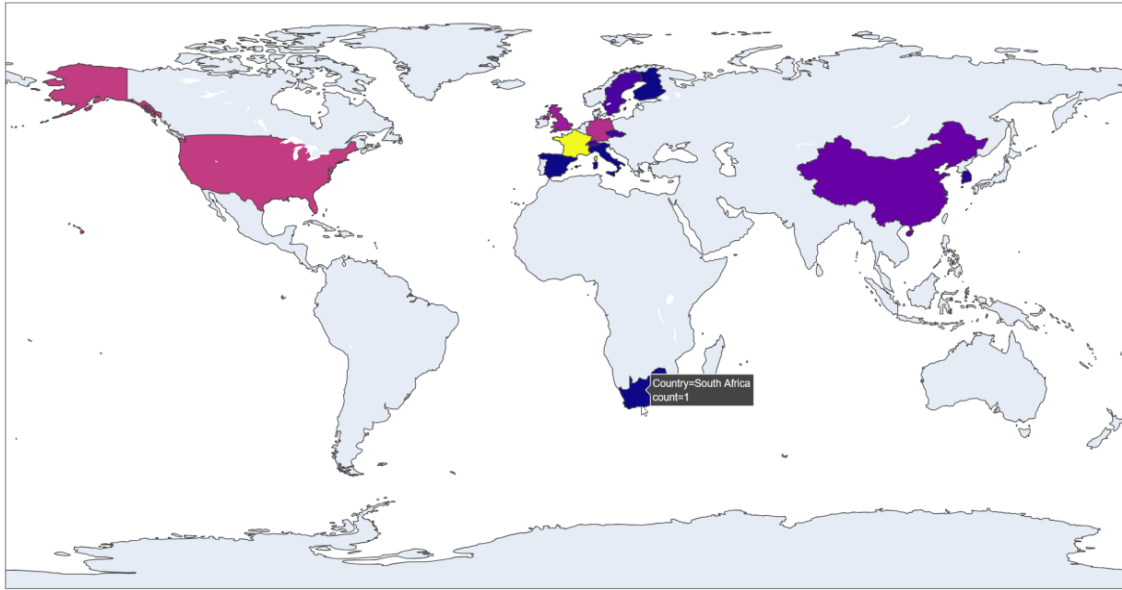
Participants by country (map)



Registrations

- How to guess nationality ? I have associated email prefix to country (alexis,gaget@cea.fr => France etc ...). Libraries on python can do that.
 - Some exceptions : ess.eu => Sweden
 - And what about *.com ?

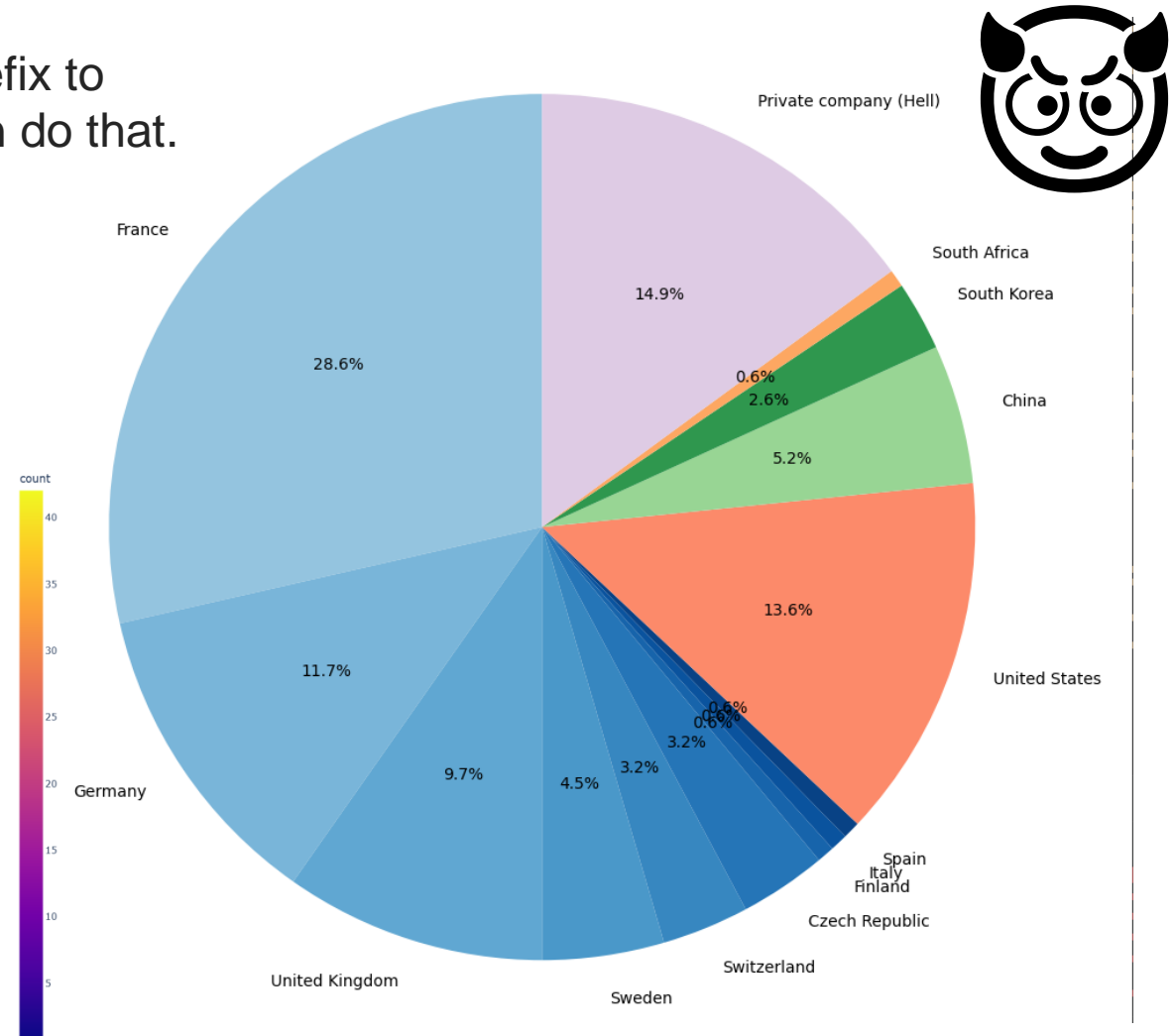
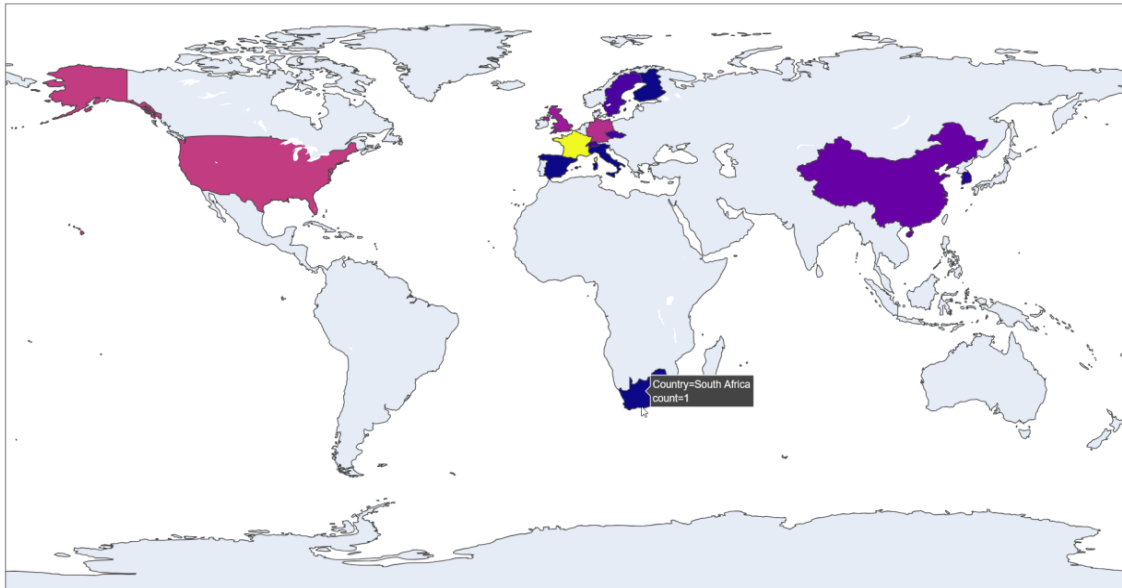
Participants by country (map)



Registrations

- How to guess nationality ? I have associated email prefix to country (*.fr => France etc ...). Libraries on python can do that.
 - What about *.com ? They directly goes to hell

Participants by country (map)

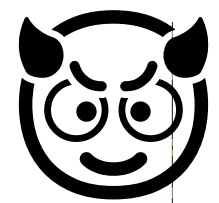
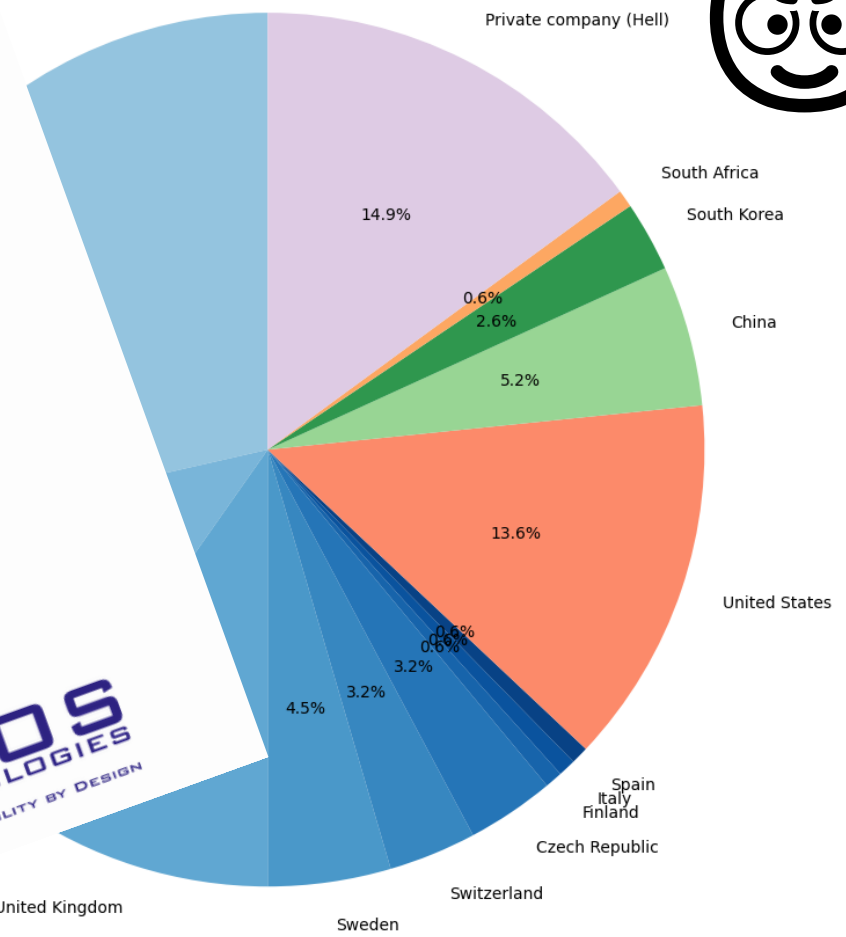
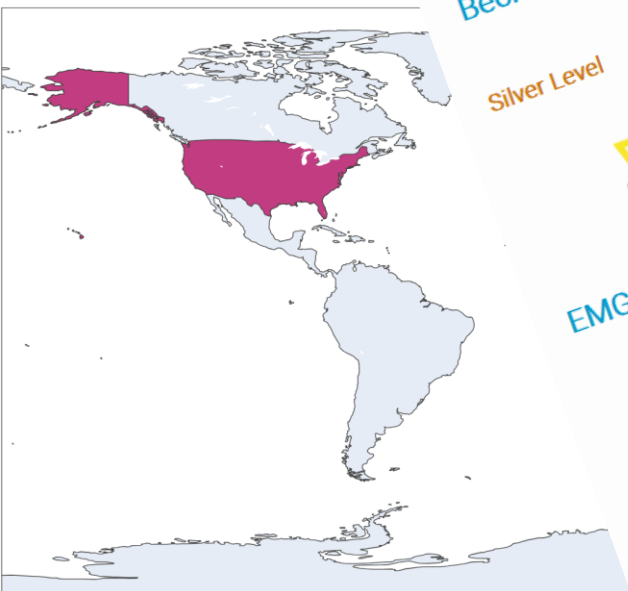


Registrations

Except for our sponsors who goes to heaven !!

• How

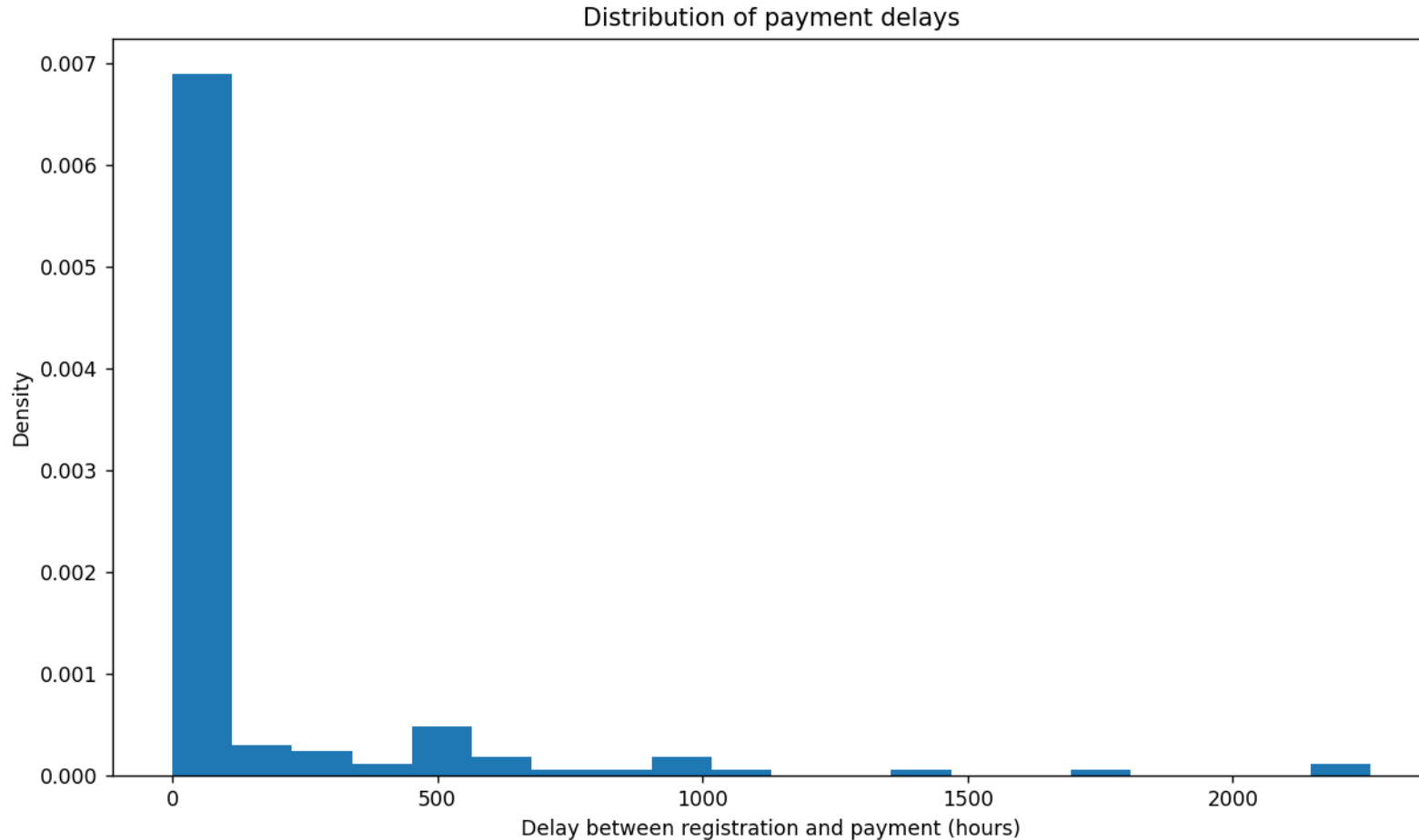
Participants by c



Registrations



- Informations becomes more and more useful



- 2 of you takes more than 2000 hours (~3 months) between registrations and payment.

Workshops



Create a file with a list of email for each workshops

```
PS H:\Documents\EPICS\meetingEPICS> poetry run python .\src\registrations\workshops.py --config confWorkshop.yaml
2026-04-10 14:30:34,049 [INFO] Starting workshop extraction
2026-04-10 14:30:36,585 [INFO] Fetched 85 registrations
2026-04-10 14:32:43,007 [INFO] EtherCAT: 24 participants
2026-04-10 14:32:43,062 [INFO] training_session___streamdevic: 23 participants
2026-04-10 14:32:43,097 [INFO] training_session___phoebus_app: 35 participants
2026-04-10 14:32:43,128 [INFO] pva_with_python___room_1z71: 34 participants
2026-04-10 14:32:43,159 [INFO] Motor: 20 participants
2026-04-10 14:32:43,196 [INFO] deployment_and_packaging_of_ep: 39 participants
2026-04-10 14:32:43,227 [INFO] EPICS7: 30 participants
2026-04-10 14:32:43,282 [INFO] OPCUA: 24 participants
2026-04-10 14:32:43,322 [INFO] training_session___phoebus_ser: 27 participants
2026-04-10 14:32:43,365 [INFO] CyberSecurity: 36 participants
2026-04-10 14:32:43,403 [INFO] training_session___introductio: 24 participants
2026-04-10 14:32:43,441 [INFO] Timing: 23 participants
2026-04-10 14:32:43,499 [INFO] oactree_sequencer: 21 participants
2026-04-10 14:32:43,654 [INFO] MTCA: 10 participants
2026-04-10 14:32:43,694 [INFO] GUI: 32 participants
2026-04-10 14:32:43,694 [INFO] Done
```



2 ■ Abstracts

Abstract script



```
PS H:\Documents\EPICS\meetingEPICS> poetry run python src/abstract/cloud.py src/abstract/abstracts.json --
stopwords .\excludeWords.txt --occurrence-file occu.txt
2026-04-19 22:28:29,649 [INFO] Starting word cloud generation
2026-04-19 22:28:29,711 [INFO] Loading JSON file: src\abstract\abstracts.json
2026-04-19 22:28:29,784 [INFO] Loading custom stopwords from excludeWords.txt
2026-04-19 22:28:29,822 [INFO] Found most probably 6 Abstracts generated by AI
2026-04-19 22:28:29,822 [INFO] Found 82 abstracts
2026-04-19 22:28:29,822 [INFO] Found 37 Talks : 12.333333 hours
2026-04-19 22:28:29,823 [INFO] Found 45 Lightning Talks : 3.750000 hours
2026-04-19 22:28:29,829 [INFO] Abstract time in hour: 18.083333
2026-04-19 22:28:29,829 [INFO] Unique words count: 2319
```

Abstract script

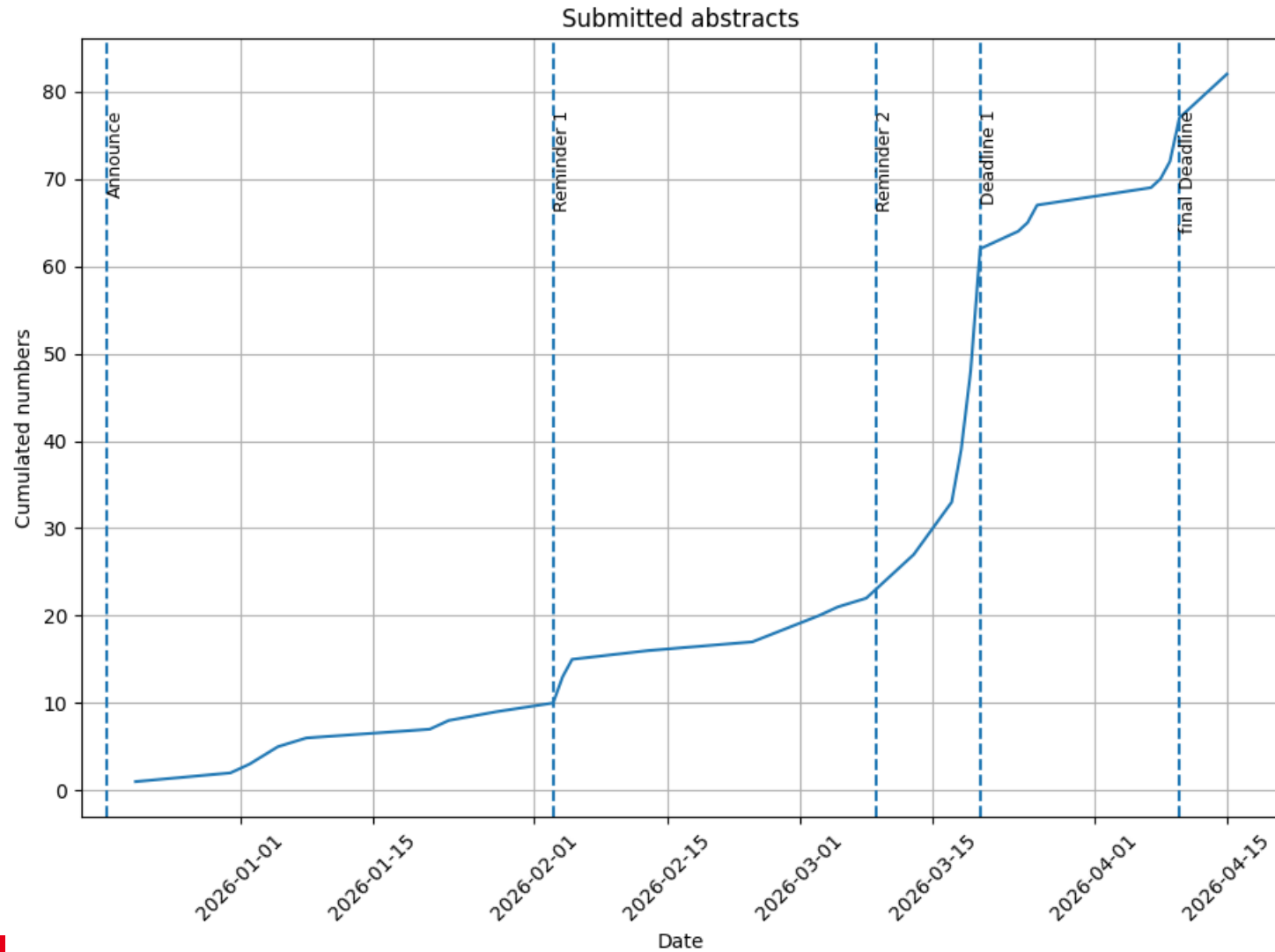


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PS H:\Documents\EPICS\meetingEPICS> poetry run python src/abstract/cloud.py src/abstract/abstracts.json --
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2026-04-19 22:28:29,649 [INFO] Starting word cloud generation
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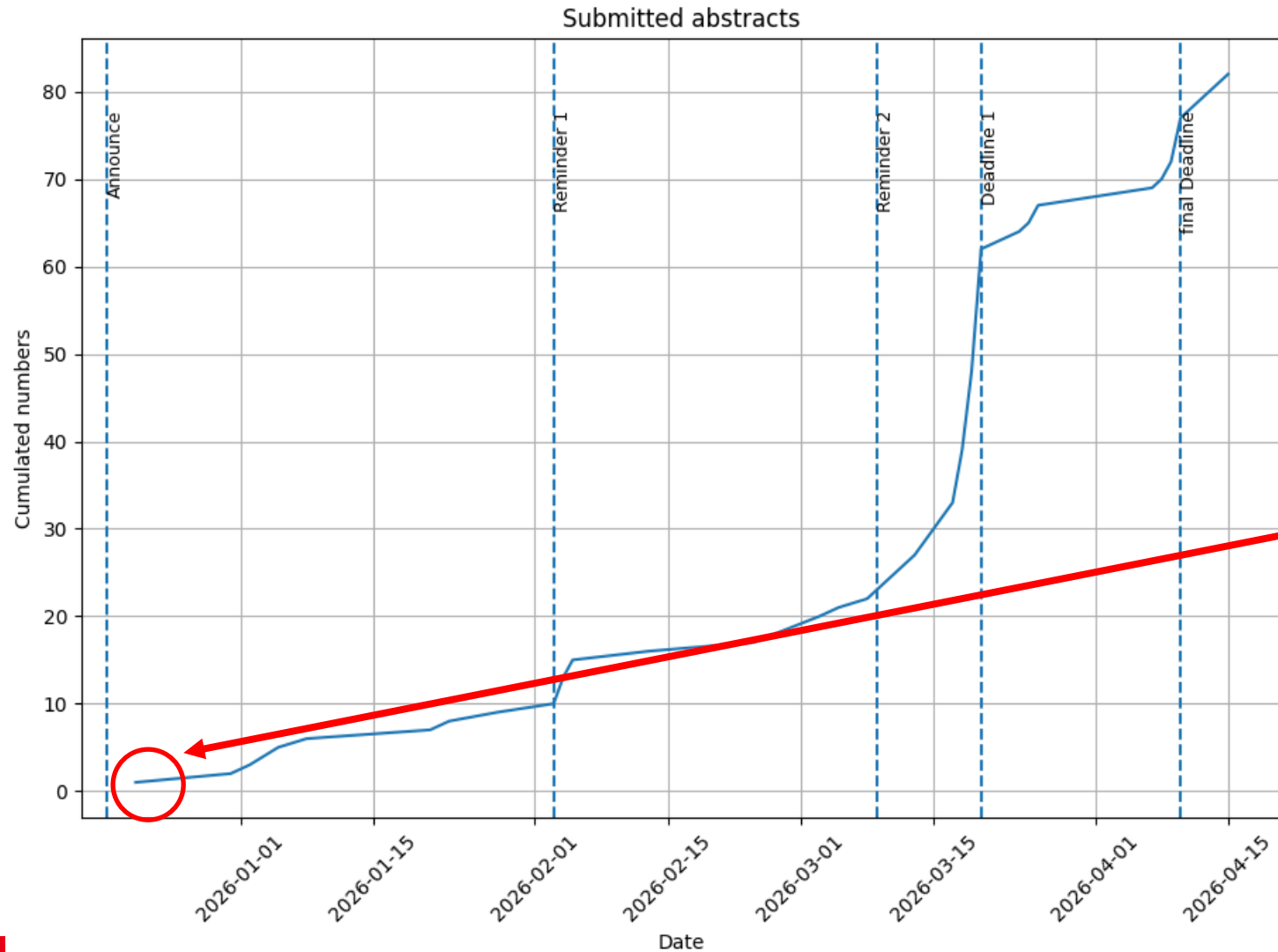
**Function developed entirely manually because I got, what we called
« l'esprit de contradiction »**

Idea : Remi Nicole

Abstracts



Abstracts

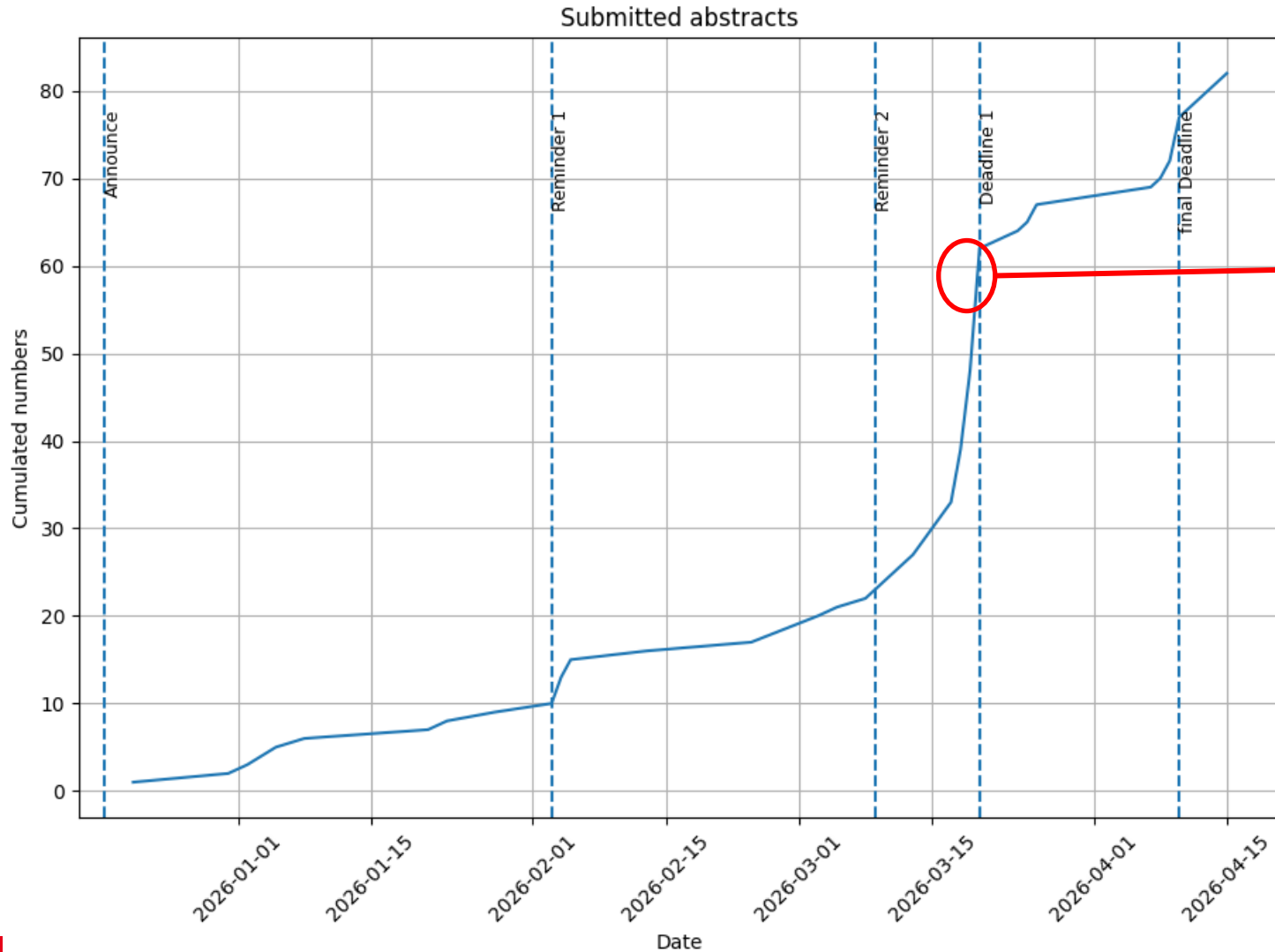


The first abstract on
21th of December 2025
Heinz hunkes
Description of his
abstract at this time :

« *TBW* »

Yes, but still first

Abstracts

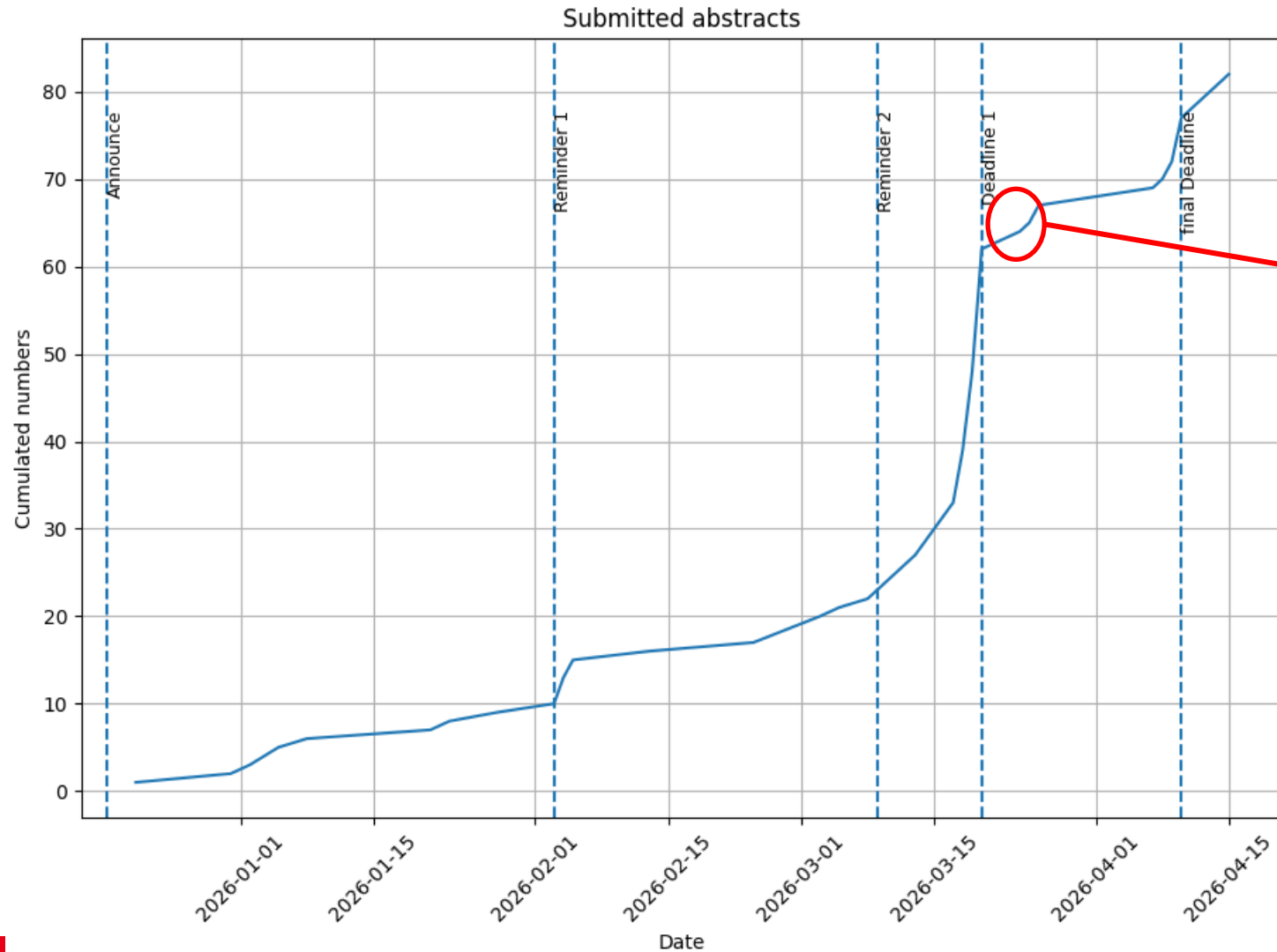


« If it continues, we're going to end up with more abstracts than particles in the universe by the beginning of the conference » Stéphane Tzvetkov, March 20th



Stéphane

Abstracts

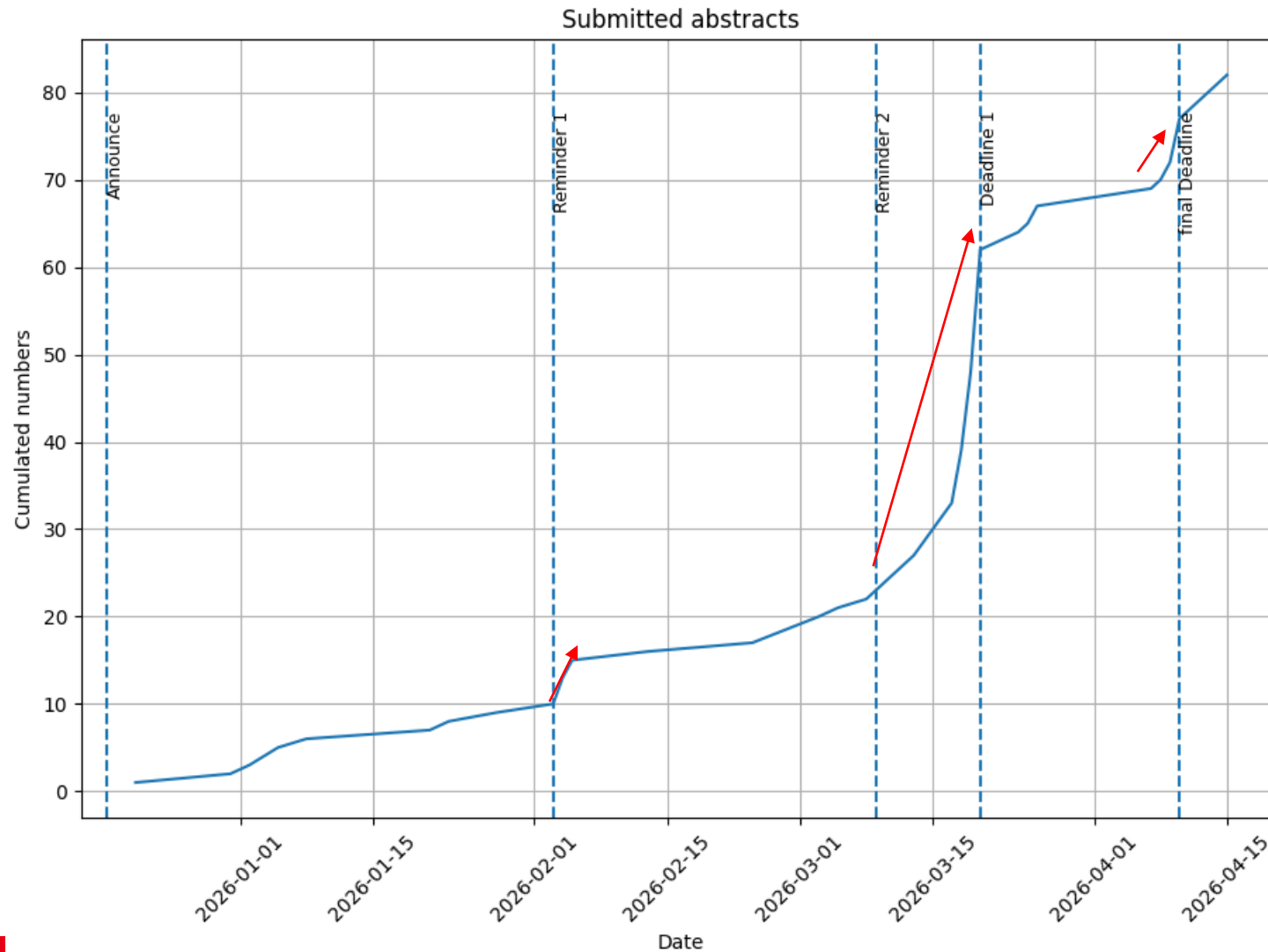


« I'm disappointed ... » Stéphane Tzvetkov, March 21th



Stéphane

Abstracts



Reminders and deadlines have an impressive effect on the number of abstracts.

The more deadlines you have, the more abstracts you get ?

The next meeting organizer can test this theory.

Conclusion

When you have no time for that kind of stuff, LLM is working very well !!

I can offer this script to the community and the next meeting EPICS organizer. I don't know where yet.

« If you give these scripts to the community are you going to maintained them ? »





Merci

CEA SACLAY

alexis.gaget@cea.fr