

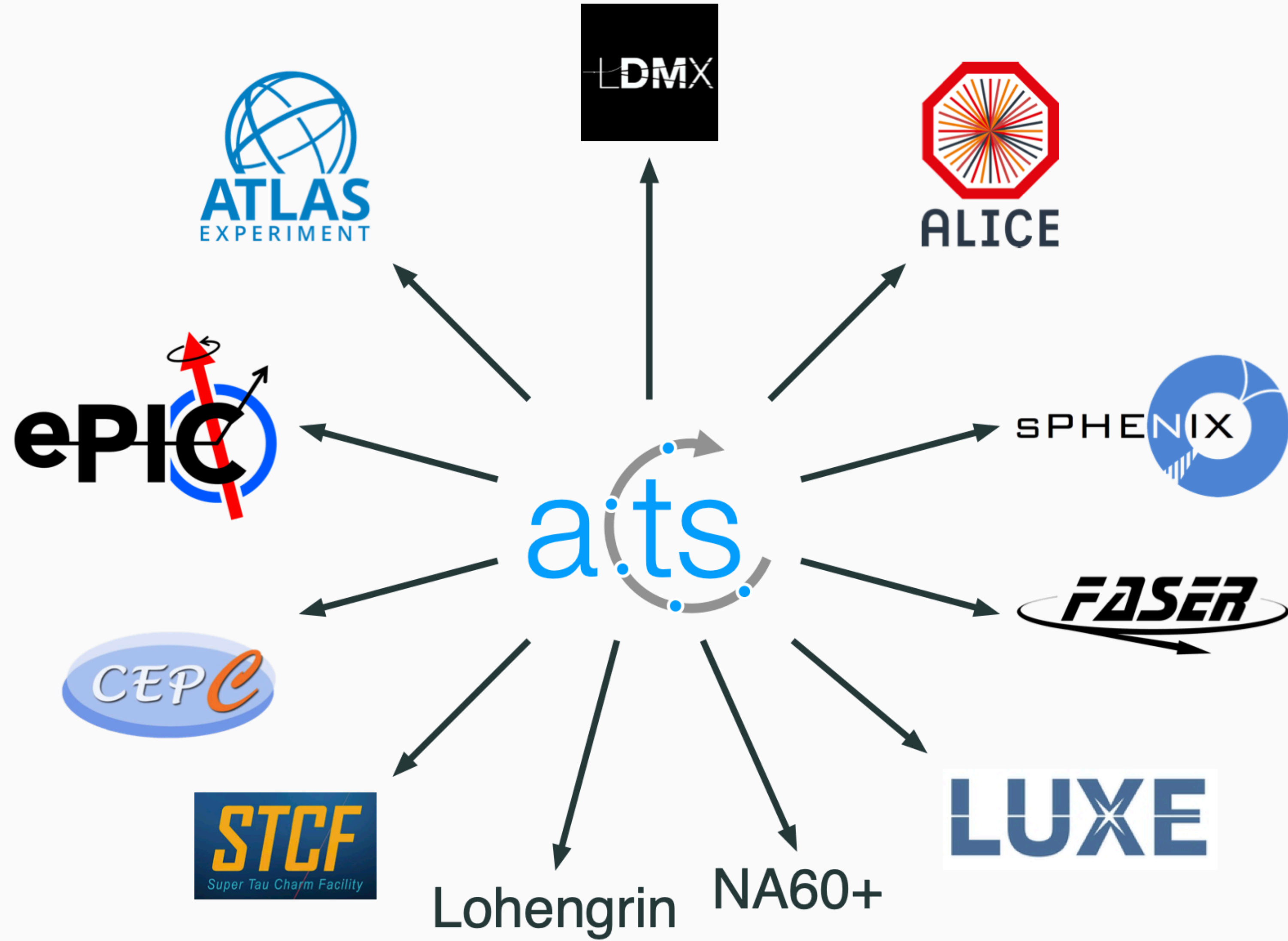
A landscape photograph featuring a vibrant green field in the foreground that slopes gently upwards towards the right. The sky above is a clear, bright blue, with a single, small, fluffy white cloud positioned in the upper left quadrant. The overall scene is bright and open.

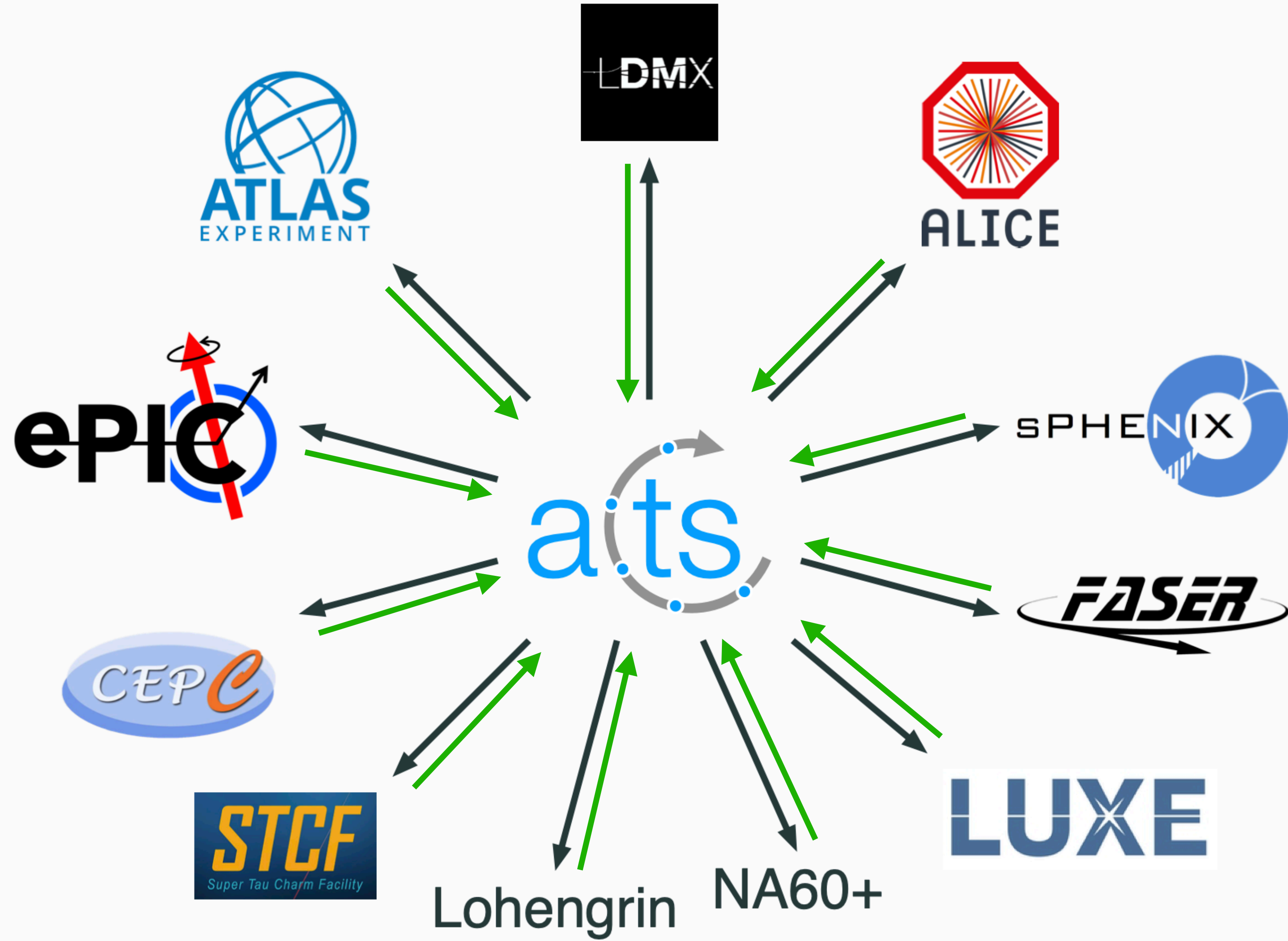
A few conclusions

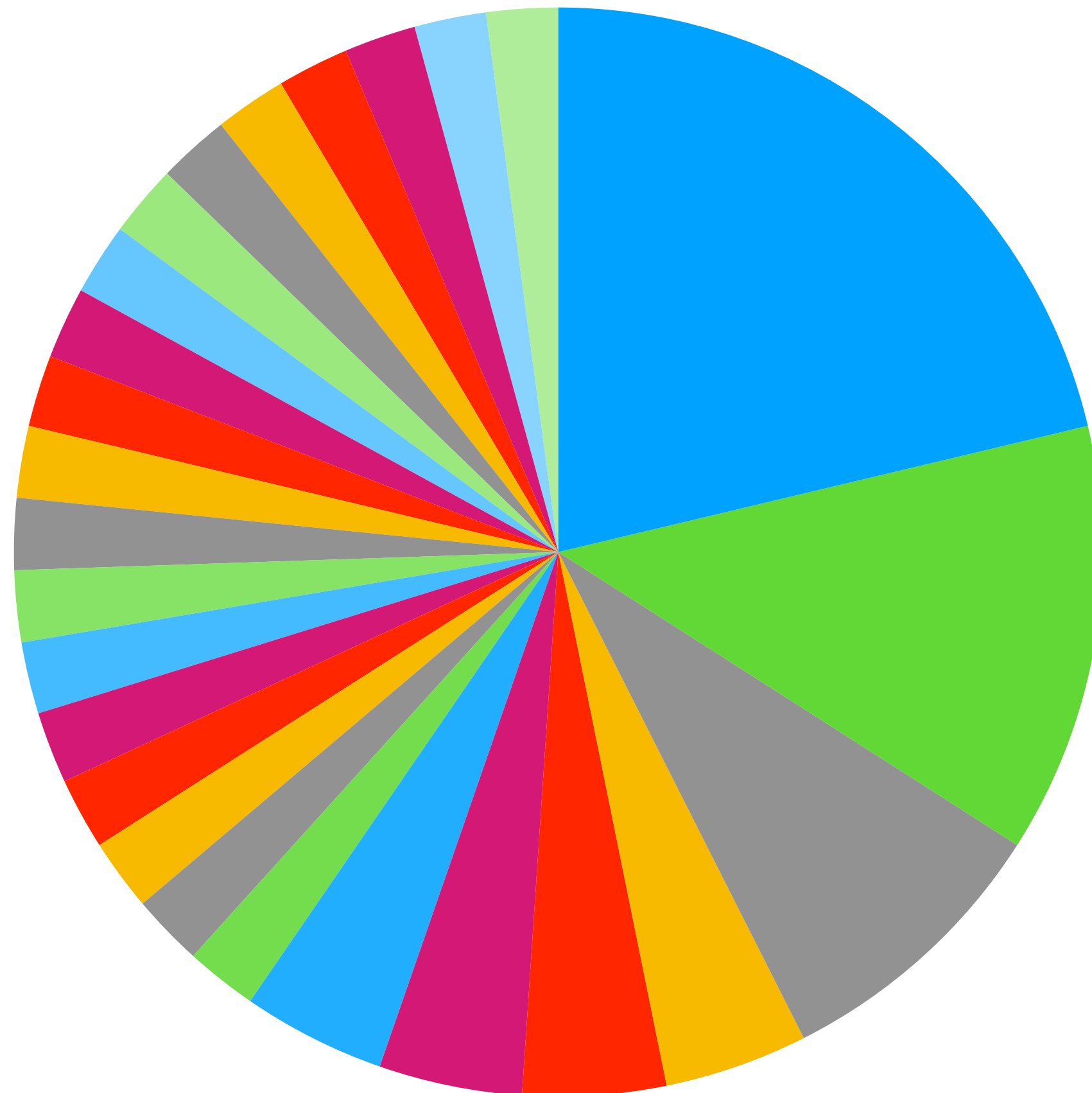
Andi

A few corrections

NOT not-boss-andi,





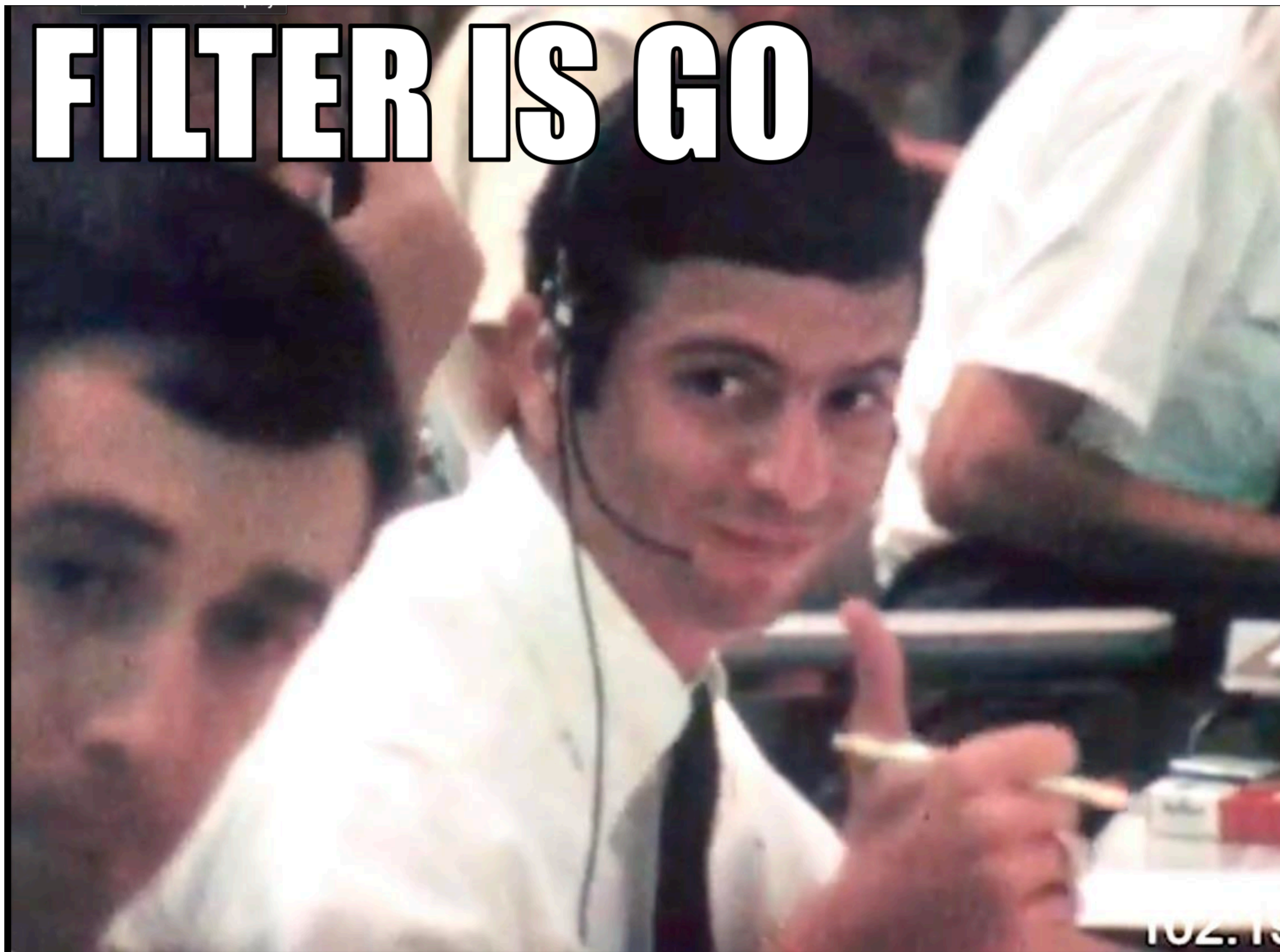


- CERN
- University of California Berkeley (US)
- AGH University of Krakow (PL)
- Chinese Academy of Sciences (CN)
- Heidelberg University (DE)
- Universidade de Sao Paulo (BR)
- Zhengzhou University (CN)
- Aristotle University of Thessaloniki (GR)
- Brookhaven National Laboratory (US)
- Computer Science, University of Huddersfield (UK)
- Duke University (US)
- IJCLab, Université Paris-Saclay (FR)
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- Technische Universitaet Muenchen (DE)
- Technische Universitaet Wien (AT)
- Universita e INFN, Firenze (IT)
- Universita e INFN, Torino (IT)
- University of Graz (AT)
- University of Oregon (US)
- University of Thessaly (GR)
- Weizmann Institute of Science (ISR)





FILTER IS GO



An early use of the **Kalman Filter** was for the US Space Programme. This is **Flight Dynamics Officer**, Jay Greene, 35 minutes before the **Apollo 11** moon landing on 20th July 1969.

The Kalman Filter was used to calculate the LEM's trajectory. During the descent, "**Filter is go**" was regularly reported to confirm that the computer was keeping up with the calculations.



102:15

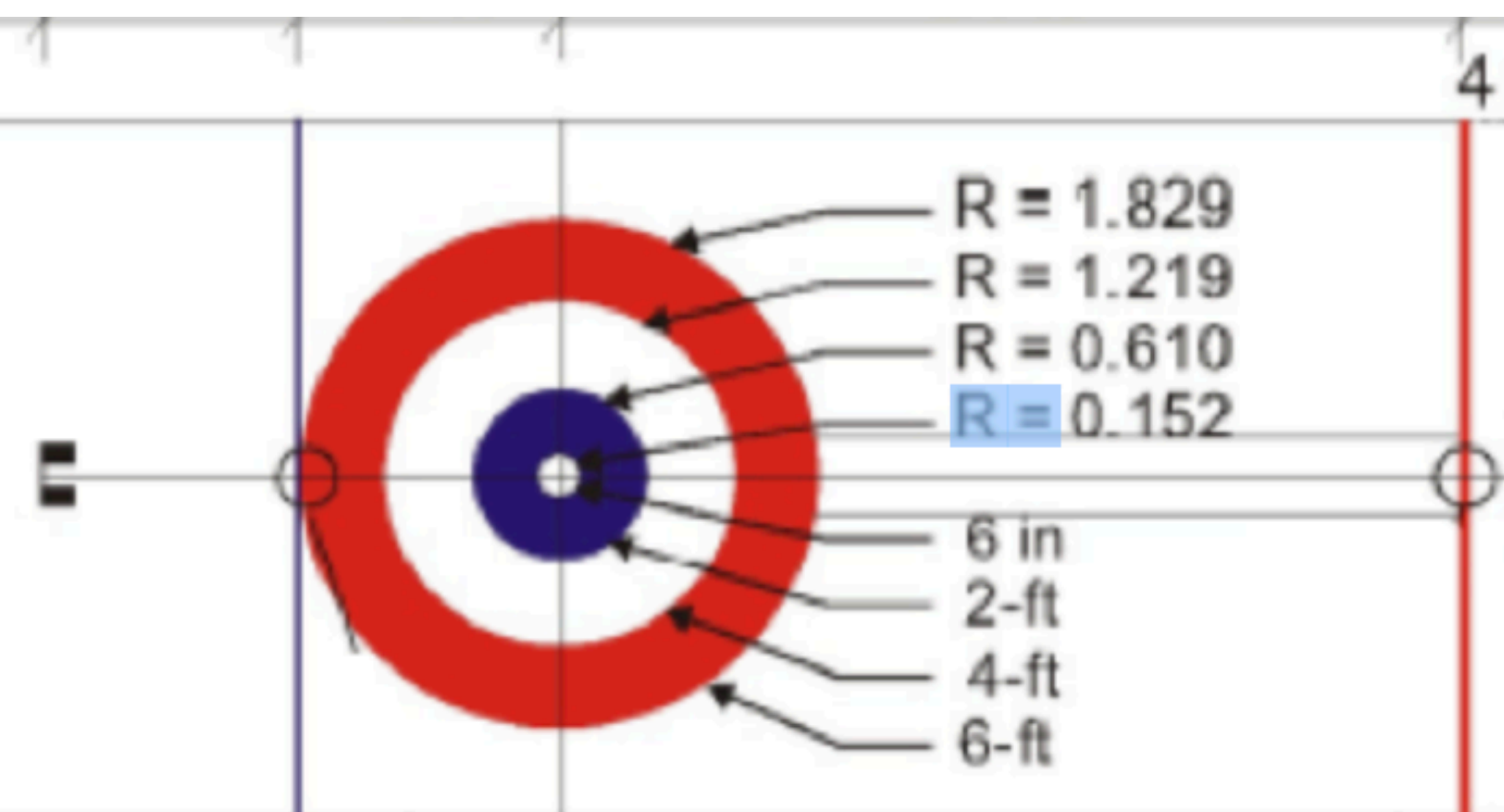
102:31:32:01

FILTER IS GO

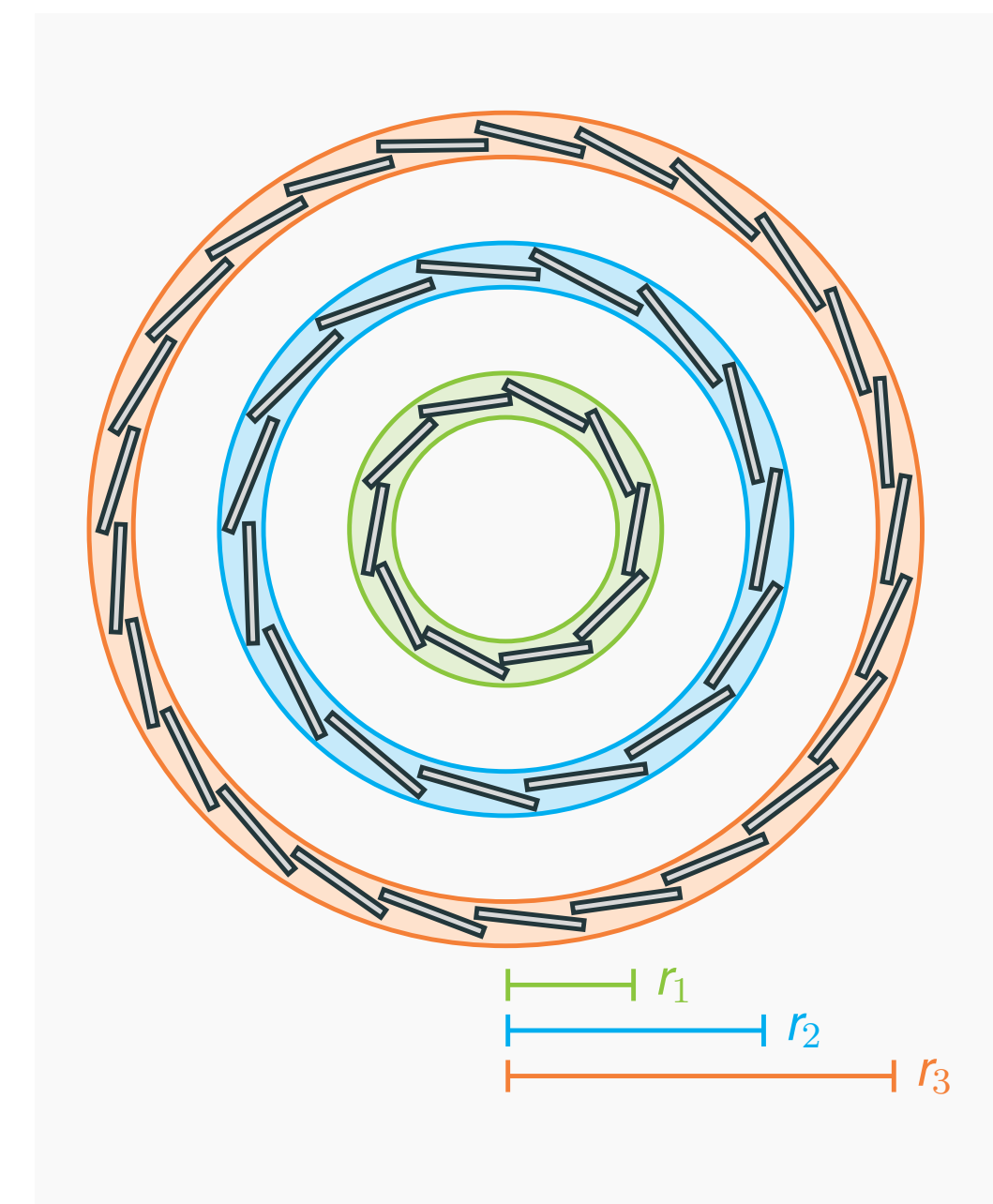
An early use of the **Kalman Filter** was for the US Space Programme. This is **Flight Dynamics Officer**, Jay Greene, 35 minutes before the **Apollo 11** moon landing on 20th July 1969. The Kalman Filter was used to calculate the LEM's trajectory. During the descent, "**Filter is go**" was regularly reported to confirm that the computer was keeping up with the calculations.



Curling house



ACTS detector

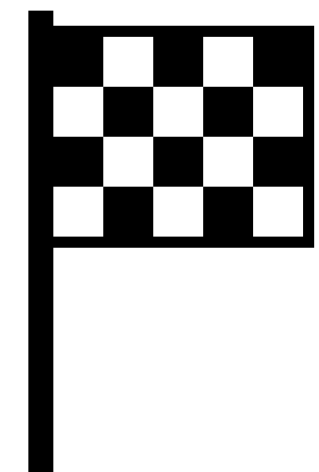
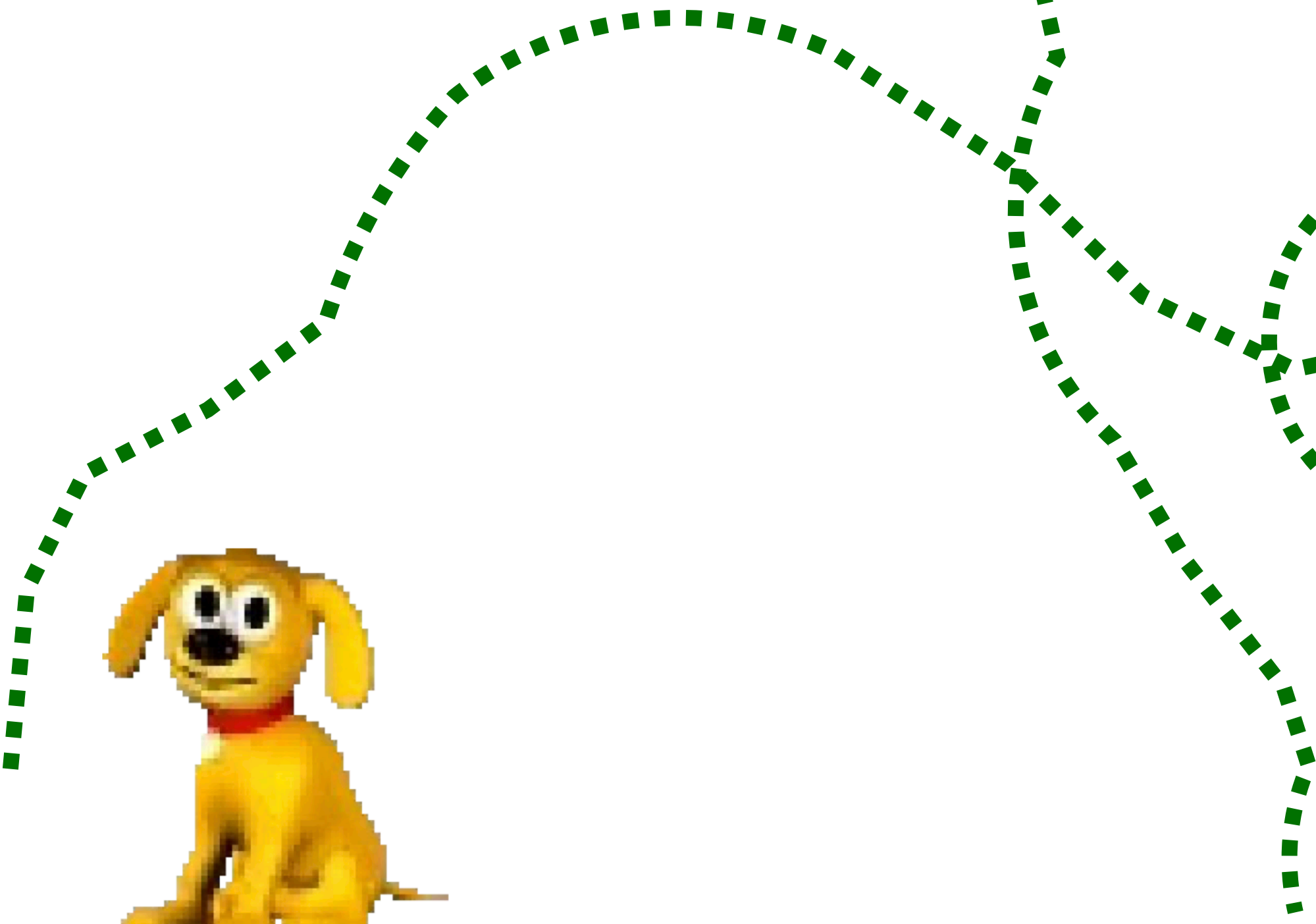




fire is good



this fire is bad



Hands-on sessions ...



A: 0
B: 0

7. ActsScalar removal -> PR #3873

Interested parties: Paul, not-boss-andi, Stephen, Alex

refactor!: remove ActsScalar #3873

 Open

AJPfleger wants to merge 9 commits into `acts-project:main` from `AJPfleger:remove-actsscalar` 

 Conversation 4

 Commits 9

 Checks 42

 Files changed 320



AJPfleger commented yesterday · edited ▾

Member ...

We concluded, that there is not really a use for `ActsScalar` as it is now:

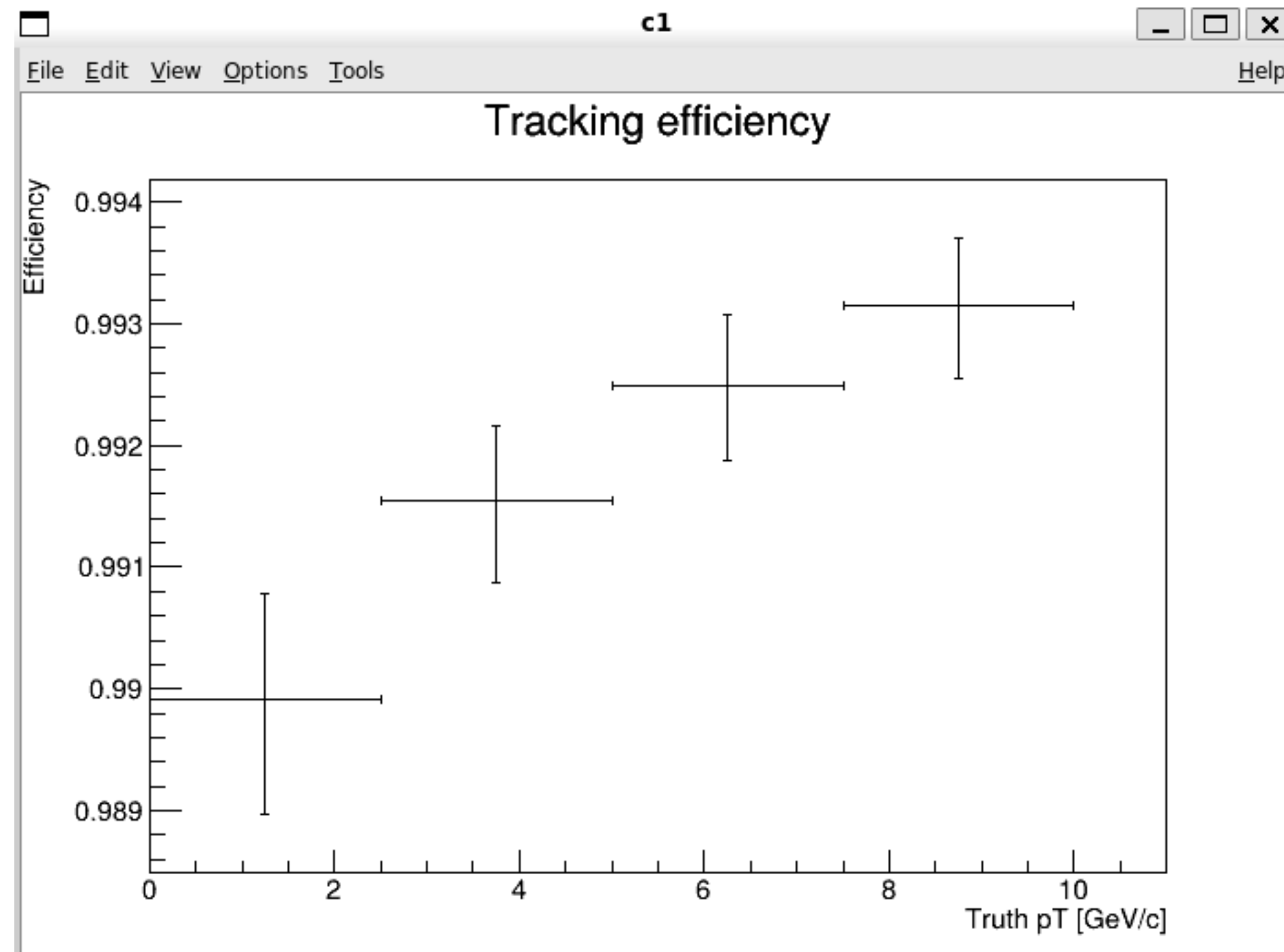
- CPUs should have the same performance for `float` and `double`
- If we wanted to check performance, we would want separate scalar types for all components
- It is too complicated to adapt everything correctly.



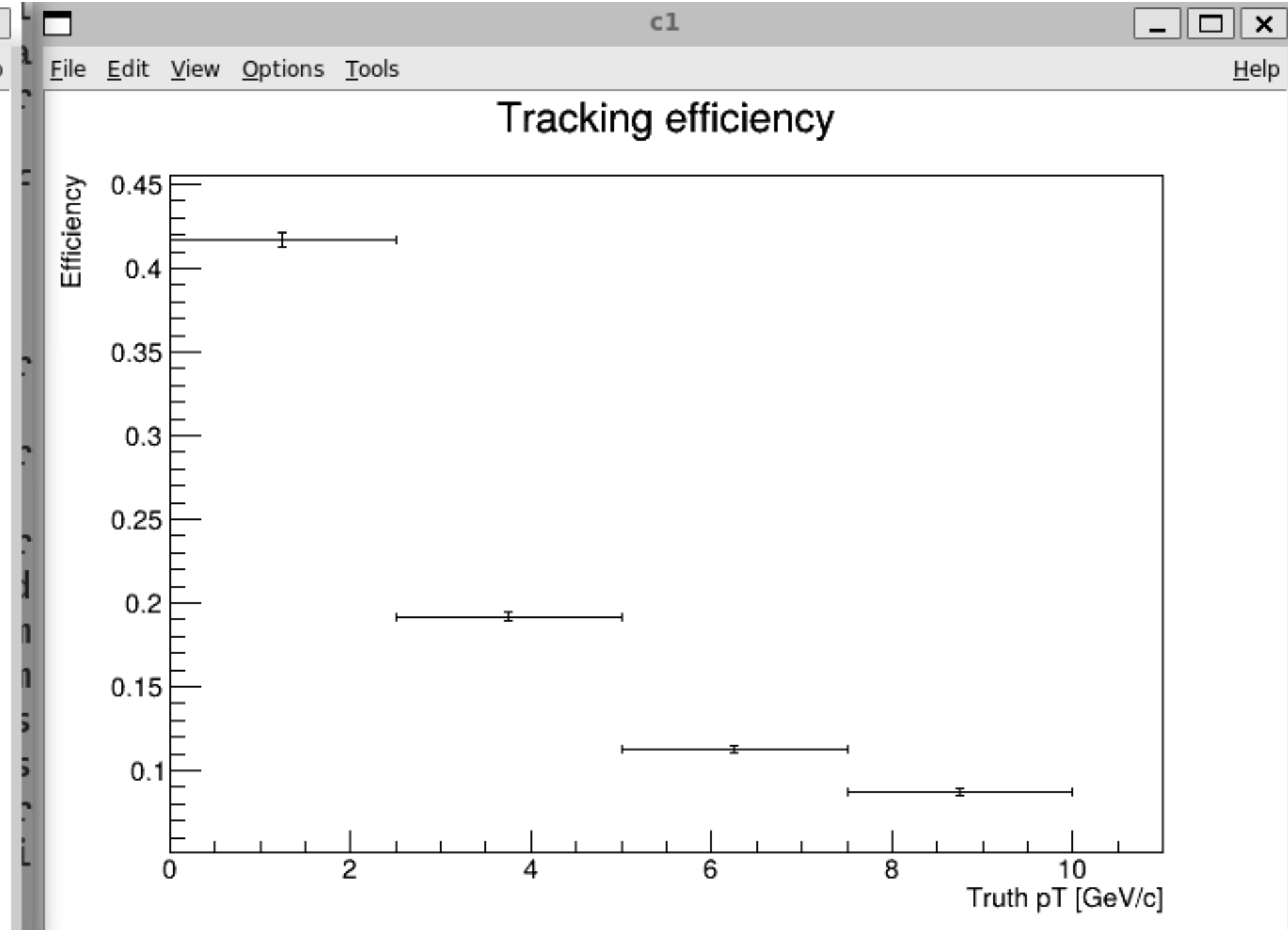
AJPfleger added 5 commits yesterday

11. Misalignment decoration for ODD

Interested parties: Xiaocong Zequn, boss-Andi



ODD perfectly aligned



ODD misaligned with
new DD4hepGeometryContext

Neeza found her 40 modules ...

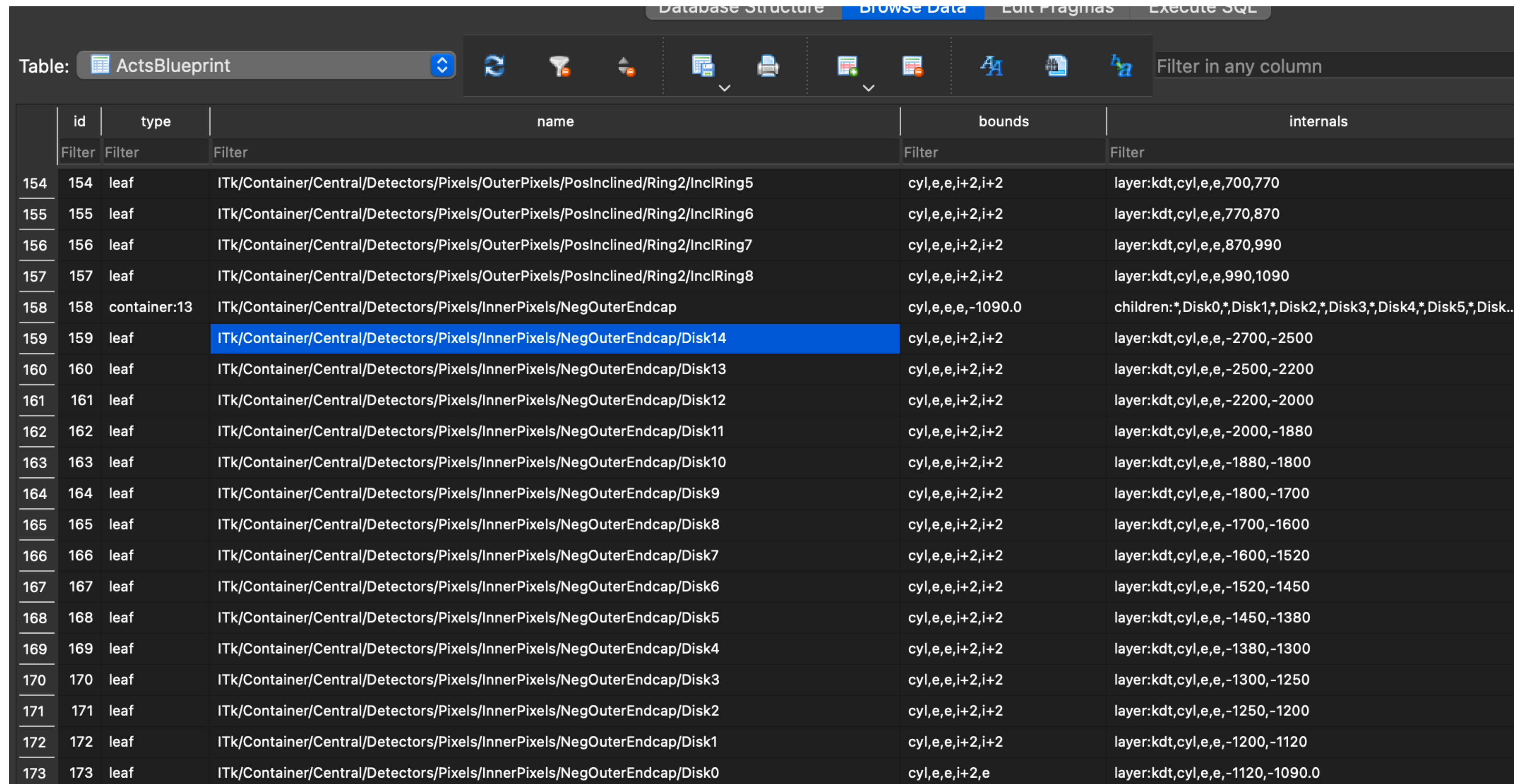
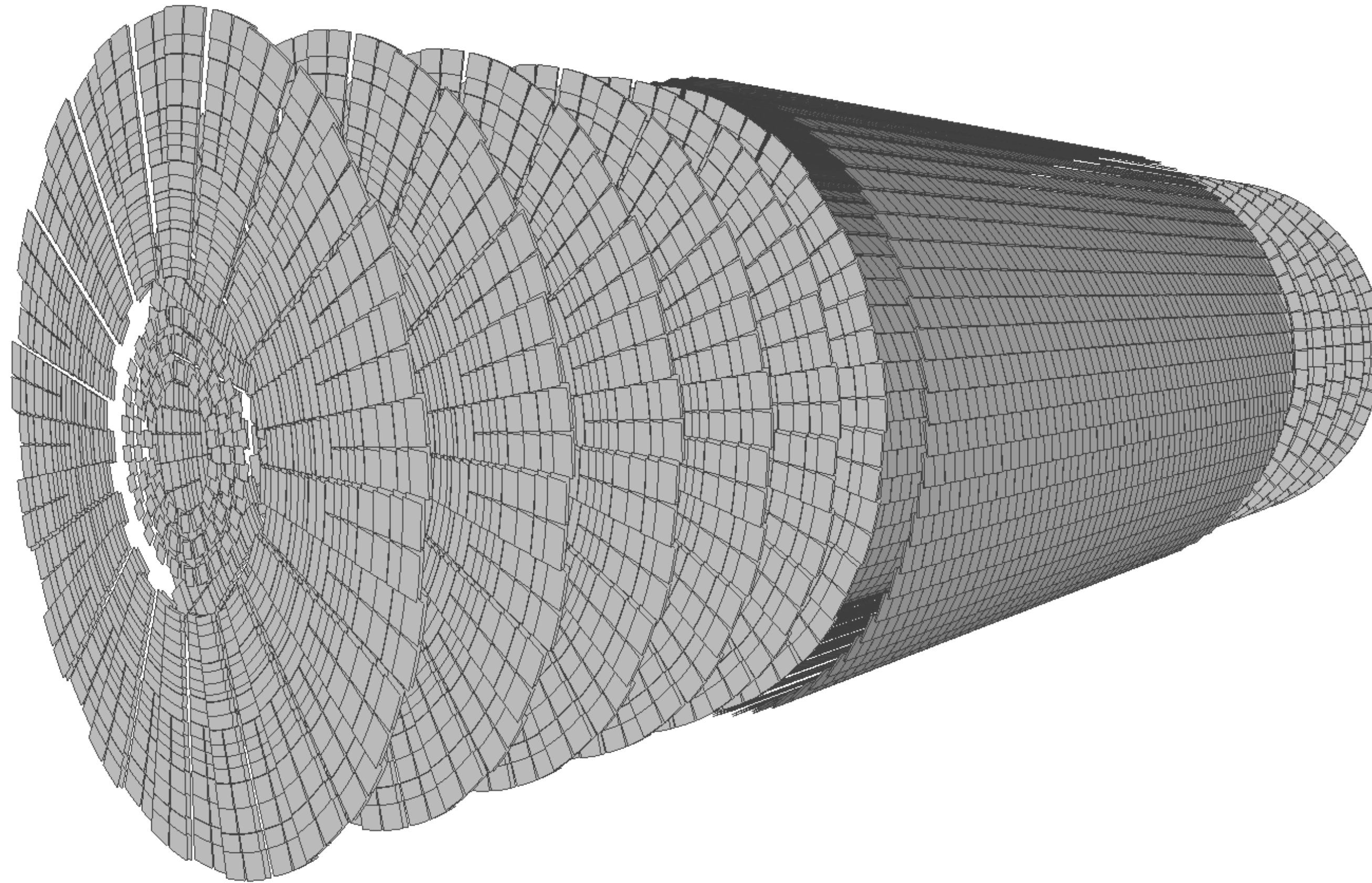


Table: ActsBlueprint

	id	type	name	bounds	internals
	Filter	Filter	Filter	Filter	Filter
154	154	leaf	ITk/Container/Central/Detectors/Pixels/OuterPixels/PosInclined/Ring2/InclRing5	cyl,e,e,i+2,i+2	layer:kdt,cyl,e,e,700,770
155	155	leaf	ITk/Container/Central/Detectors/Pixels/OuterPixels/PosInclined/Ring2/InclRing6	cyl,e,e,i+2,i+2	layer:kdt,cyl,e,e,770,870
156	156	leaf	ITk/Container/Central/Detectors/Pixels/OuterPixels/PosInclined/Ring2/InclRing7	cyl,e,e,i+2,i+2	layer:kdt,cyl,e,e,870,990
157	157	leaf	ITk/Container/Central/Detectors/Pixels/OuterPixels/PosInclined/Ring2/InclRing8	cyl,e,e,i+2,i+2	layer:kdt,cyl,e,e,990,1090
158	158	container:13	ITk/Container/Central/Detectors/Pixels/InnerPixels/NegOuterEndcap	cyl,e,e,e,-1090.0	children:*,Disk0,*,Disk1,*,Disk2,*,Disk3,*,Disk4,*,Disk5,*,Disk...
159	159	leaf	ITk/Container/Central/Detectors/Pixels/InnerPixels/NegOuterEndcap/Disk14	cyl,e,e,i+2,i+2	layer:kdt,cyl,e,e,-2700,-2500
160	160	leaf	ITk/Container/Central/Detectors/Pixels/InnerPixels/NegOuterEndcap/Disk13	cyl,e,e,i+2,i+2	layer:kdt,cyl,e,e,-2500,-2200
161	161	leaf	ITk/Container/Central/Detectors/Pixels/InnerPixels/NegOuterEndcap/Disk12	cyl,e,e,i+2,i+2	layer:kdt,cyl,e,e,-2200,-2000
162	162	leaf	ITk/Container/Central/Detectors/Pixels/InnerPixels/NegOuterEndcap/Disk11	cyl,e,e,i+2,i+2	layer:kdt,cyl,e,e,-2000,-1880
163	163	leaf	ITk/Container/Central/Detectors/Pixels/InnerPixels/NegOuterEndcap/Disk10	cyl,e,e,i+2,i+2	layer:kdt,cyl,e,e,-1880,-1800
164	164	leaf	ITk/Container/Central/Detectors/Pixels/InnerPixels/NegOuterEndcap/Disk9	cyl,e,e,i+2,i+2	layer:kdt,cyl,e,e,-1800,-1700
165	165	leaf	ITk/Container/Central/Detectors/Pixels/InnerPixels/NegOuterEndcap/Disk8	cyl,e,e,i+2,i+2	layer:kdt,cyl,e,e,-1700,-1600
166	166	leaf	ITk/Container/Central/Detectors/Pixels/InnerPixels/NegOuterEndcap/Disk7	cyl,e,e,i+2,i+2	layer:kdt,cyl,e,e,-1600,-1520
167	167	leaf	ITk/Container/Central/Detectors/Pixels/InnerPixels/NegOuterEndcap/Disk6	cyl,e,e,i+2,i+2	layer:kdt,cyl,e,e,-1520,-1450
168	168	leaf	ITk/Container/Central/Detectors/Pixels/InnerPixels/NegOuterEndcap/Disk5	cyl,e,e,i+2,i+2	layer:kdt,cyl,e,e,-1450,-1380
169	169	leaf	ITk/Container/Central/Detectors/Pixels/InnerPixels/NegOuterEndcap/Disk4	cyl,e,e,i+2,i+2	layer:kdt,cyl,e,e,-1380,-1300
170	170	leaf	ITk/Container/Central/Detectors/Pixels/InnerPixels/NegOuterEndcap/Disk3	cyl,e,e,i+2,i+2	layer:kdt,cyl,e,e,-1300,-1250
171	171	leaf	ITk/Container/Central/Detectors/Pixels/InnerPixels/NegOuterEndcap/Disk2	cyl,e,e,i+2,i+2	layer:kdt,cyl,e,e,-1250,-1200
172	172	leaf	ITk/Container/Central/Detectors/Pixels/InnerPixels/NegOuterEndcap/Disk1	cyl,e,e,i+2,i+2	layer:kdt,cyl,e,e,-1200,-1120
173	173	leaf	ITk/Container/Central/Detectors/Pixels/InnerPixels/NegOuterEndcap/Disk0	cyl,e,e,i+2,e	layer:kdt,cyl,e,e,-1120,-1090.0

... which I had lost because I can't count to 14

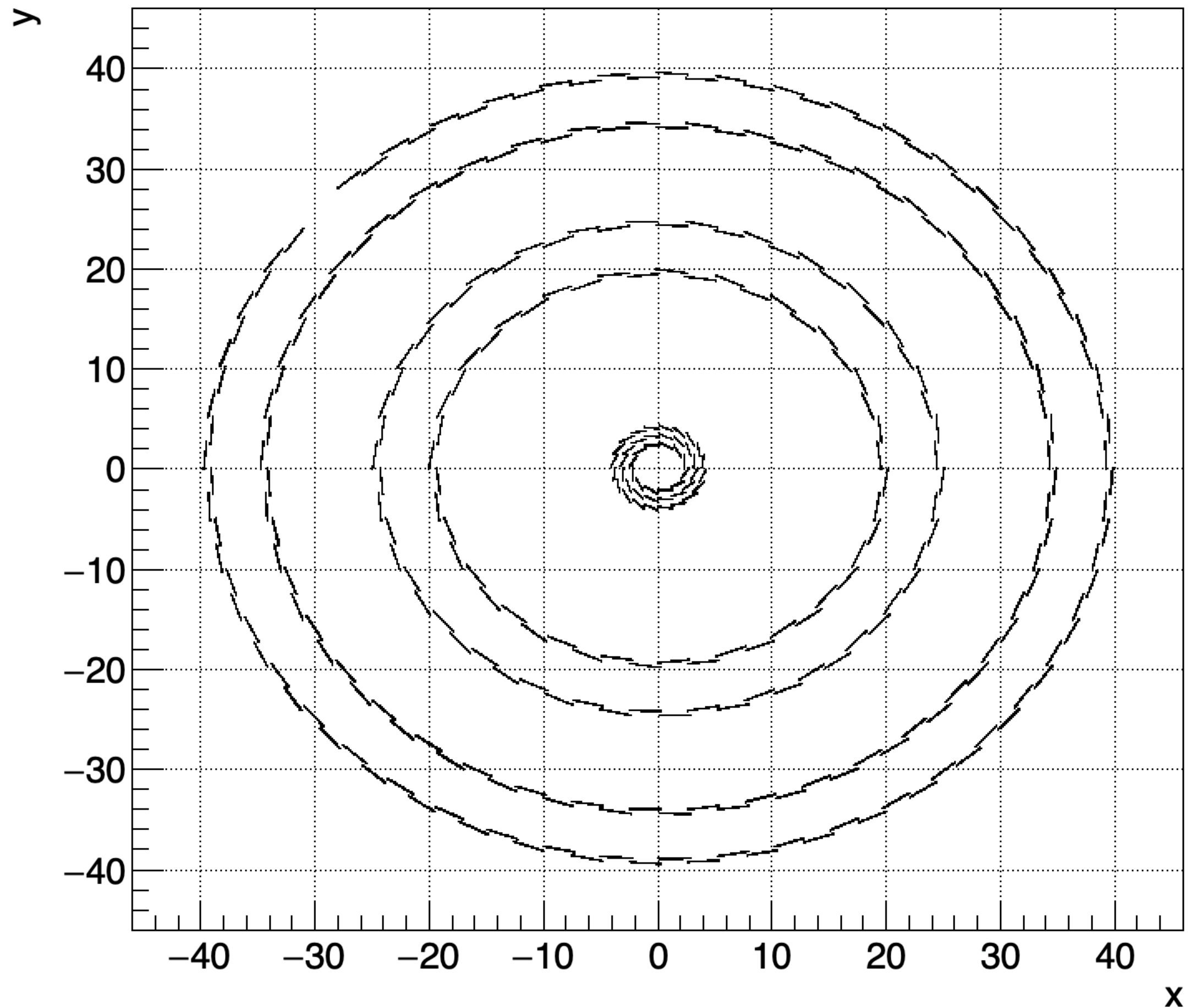
The ITk in detray is complete



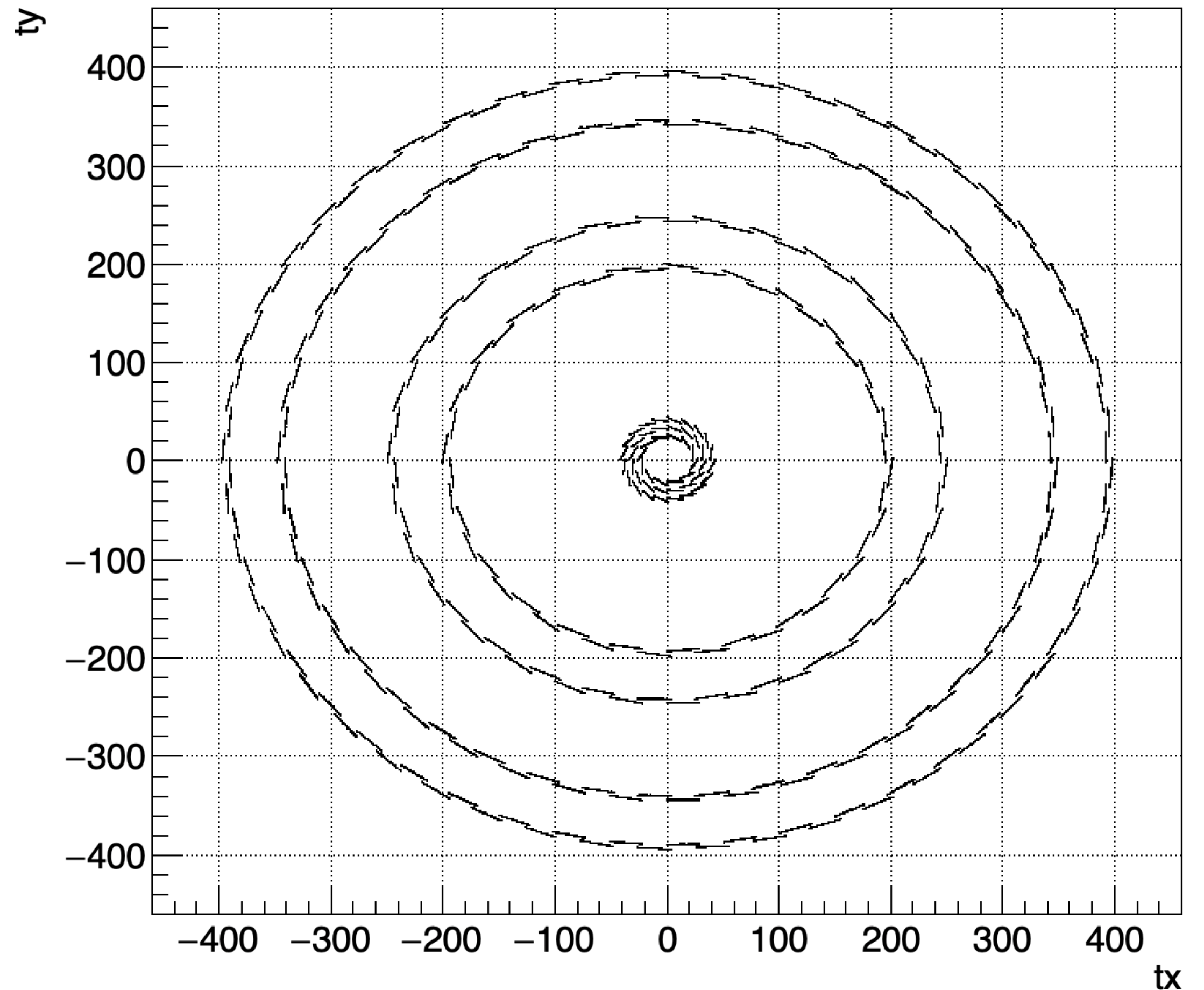
ALICE ITS2 (Run 3) geometry to ACTS

- Exploratory exercise, in view of the future ALICE 3 reconstruction
- ITS2 (Run-3) 7-layer pixel tracker, tracks to be connected to TPC tracks

Real clusters (Pb-Pb 2023)



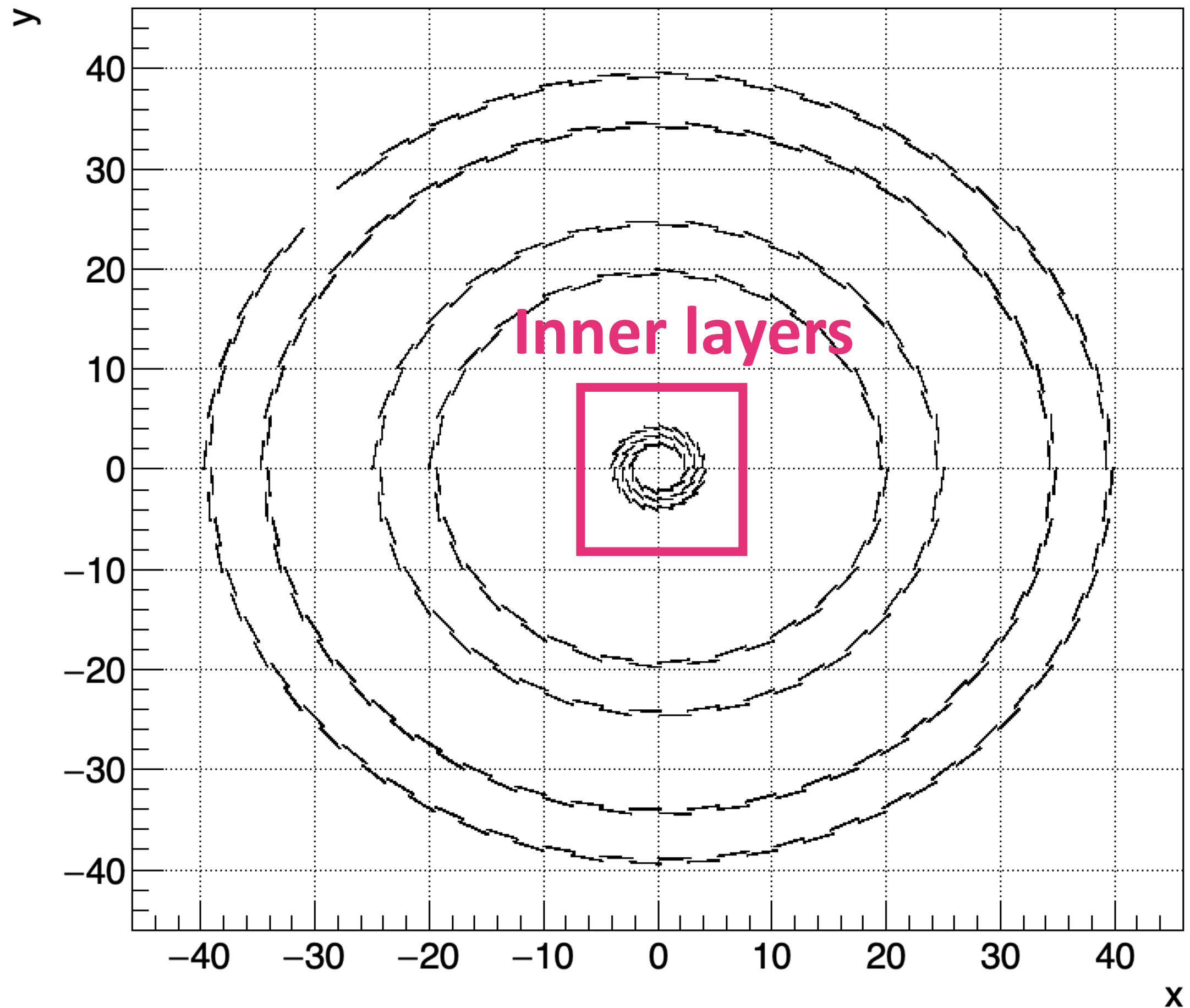
MC hits with ACTS



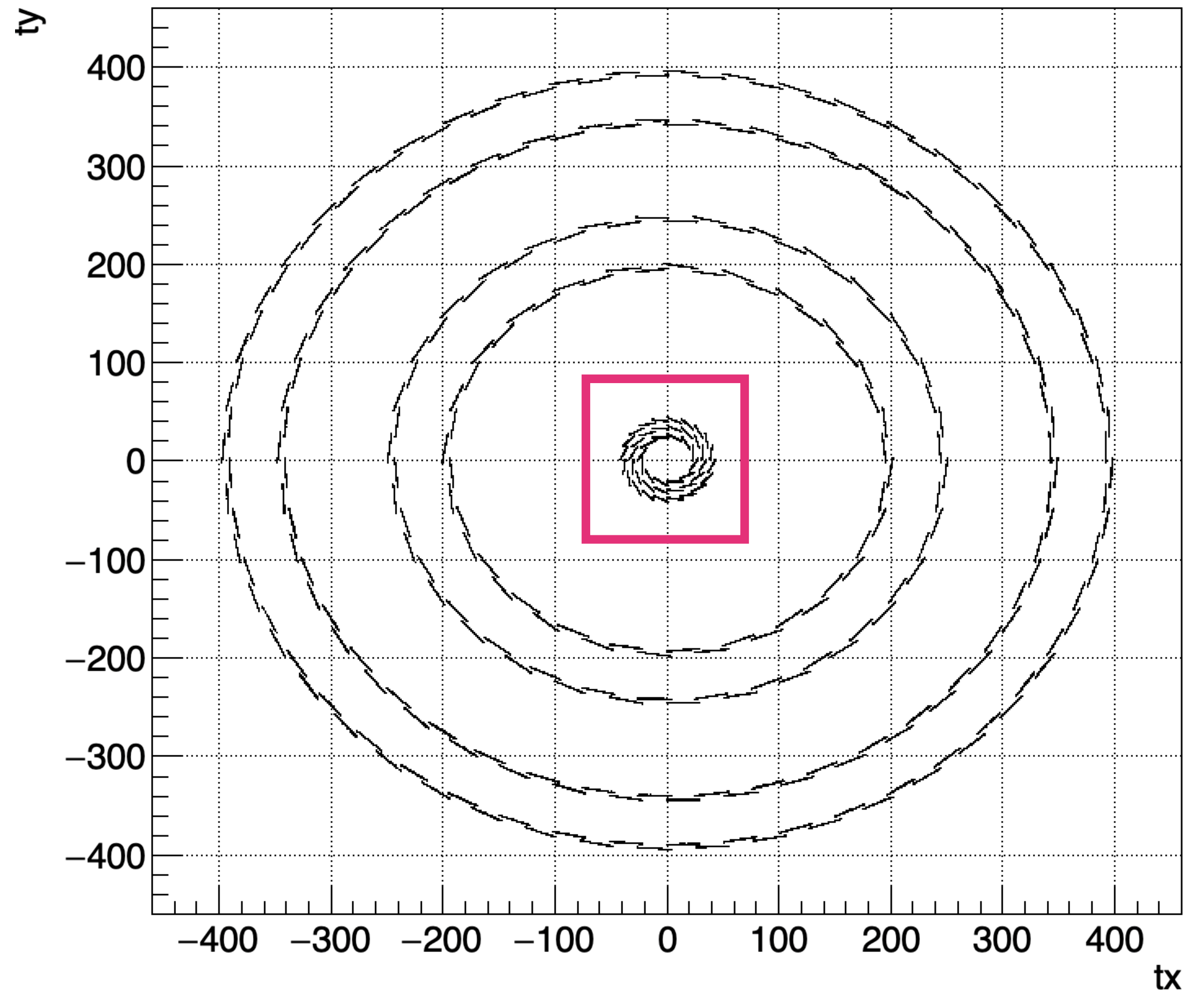
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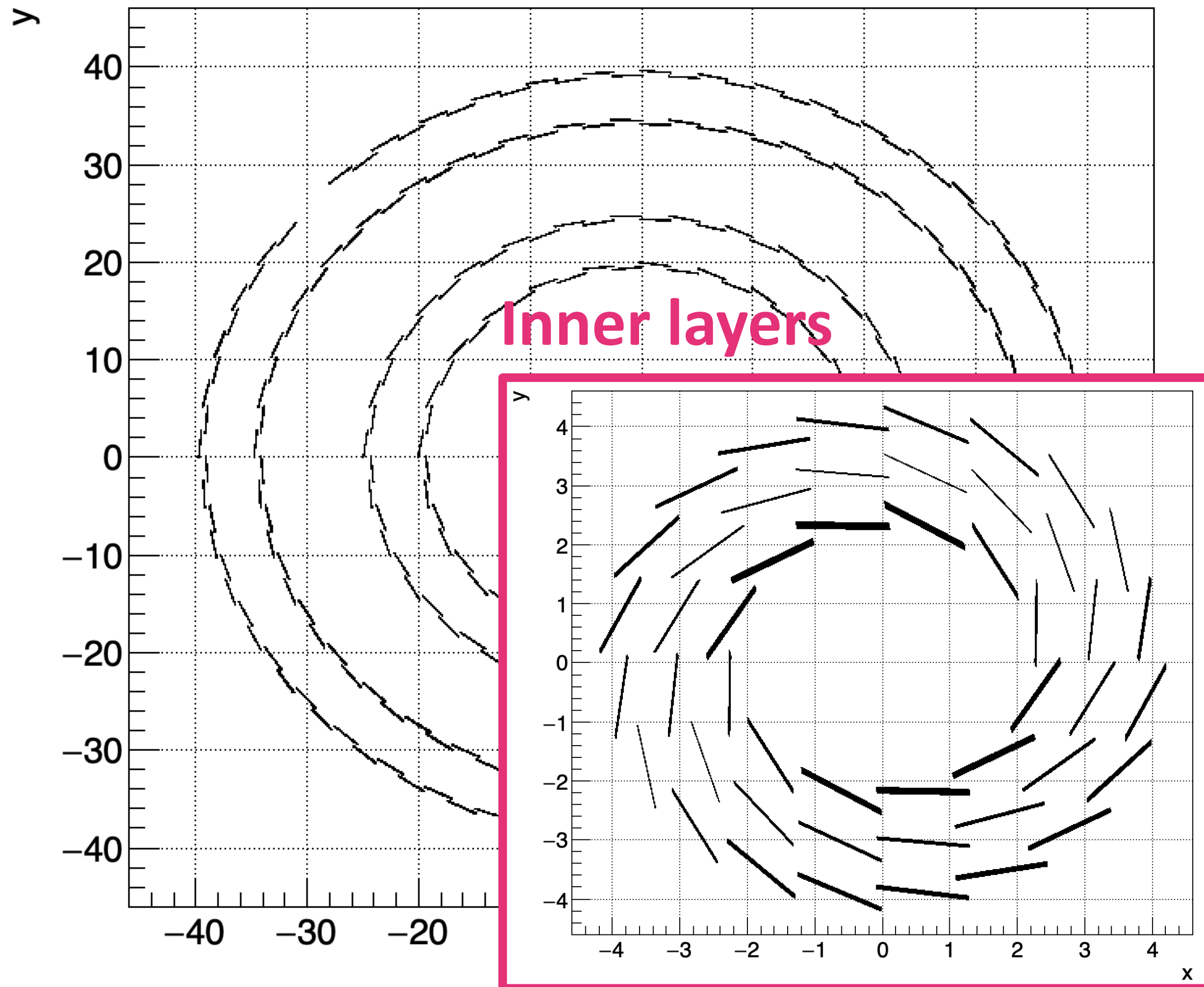
MC hits with ACTS



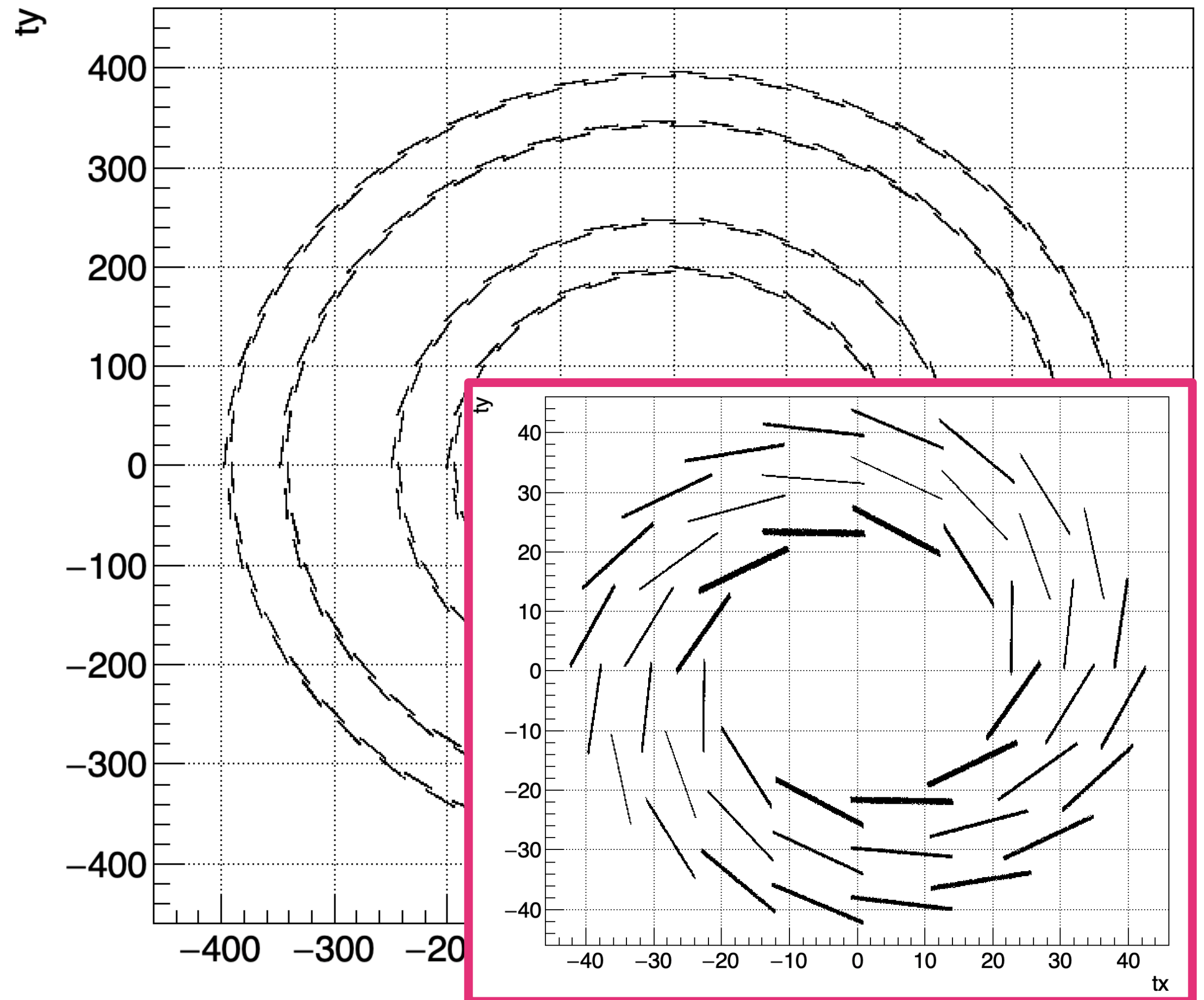
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Real clusters (Pb-Pb 2023)



MC hits with ACTS



PR traffic during the WS on acts-project/acts

<input type="checkbox"/>  71 Open ✓ 3,247 Closed	Author ▾	Label ▾	Projects ▾	Milestones ▾	Reviews ▾	Assignee ▾	Sort ▾
<input type="checkbox"/>  feat: Updates to GBTS for Athena Implementation (Breaking Change) ✕ Component - Core Component - Examples Seeding Track Finding #3882 opened 15 hours ago by Rosie-Hasan · Draft 3							
<input type="checkbox"/>  docs: Add troubleshooting section for Spack ✕ Component - Documentation #3881 opened 16 hours ago by stephenswat next 2							
<input type="checkbox"/>  chore: add dependabot jobs for all python requirements ✕ WIP Infrastructure blocked #3880 opened 16 hours ago by AJPfleger · Draft next 3							
<input type="checkbox"/>  docs(sphinx): remove outdated warnings from ignore list ● Component - Documentation #3878 opened 19 hours ago by AJPfleger next 1							
<input type="checkbox"/>  feat: Helpers to calculate residuals, chi2 and unbiased states ✕ Component - Core Component - Examples #3877 opened yesterday by andiwand · Draft next 10							
<input type="checkbox"/>  feat: Update GNN plugin ✕ Component - Examples Component - Plugins WIP Track Finding #3876 opened 2 days ago by benjaminhuth next 15							
<input type="checkbox"/>  chore: bump Python requirements ● Component - Documentation Component - Examples Infrastructure #3875 opened 2 days ago by AJPfleger next 3							
<input type="checkbox"/>  refactor!: remove ActsScalar ● Breaks Athena build Clustering Component - Core Component - Documentation Component - Examples Component - Fatras Component - Plugins Event Data Model Seeding SP formation Track Fitting Vertexing #3873 opened 2 days ago by AJPfleger next 4							
<input type="checkbox"/>  feat: Gen3 blueprint geometry construction ✕ Component - Core Component - Examples blocked #3869 opened 3 days ago by paulgessinger · Draft next 1							

In conclusion

- **Curling** is more popular than I thought (potentially also more interesting)
- I really enjoyed the workshop, atmosphere, **community**
- November spot seems to fit well, I suggest we should keep it (real-outside CERN WS next year?)
- I personally want to thank **Noemi & Paul** who took most of the organisation off my hands



Alex really needs to be careful about biases

Finally



Snow has arrived on the Jura, end of year is coming.

A **BIG THANK YOU** for all your work throughout 2024.





fire is good

