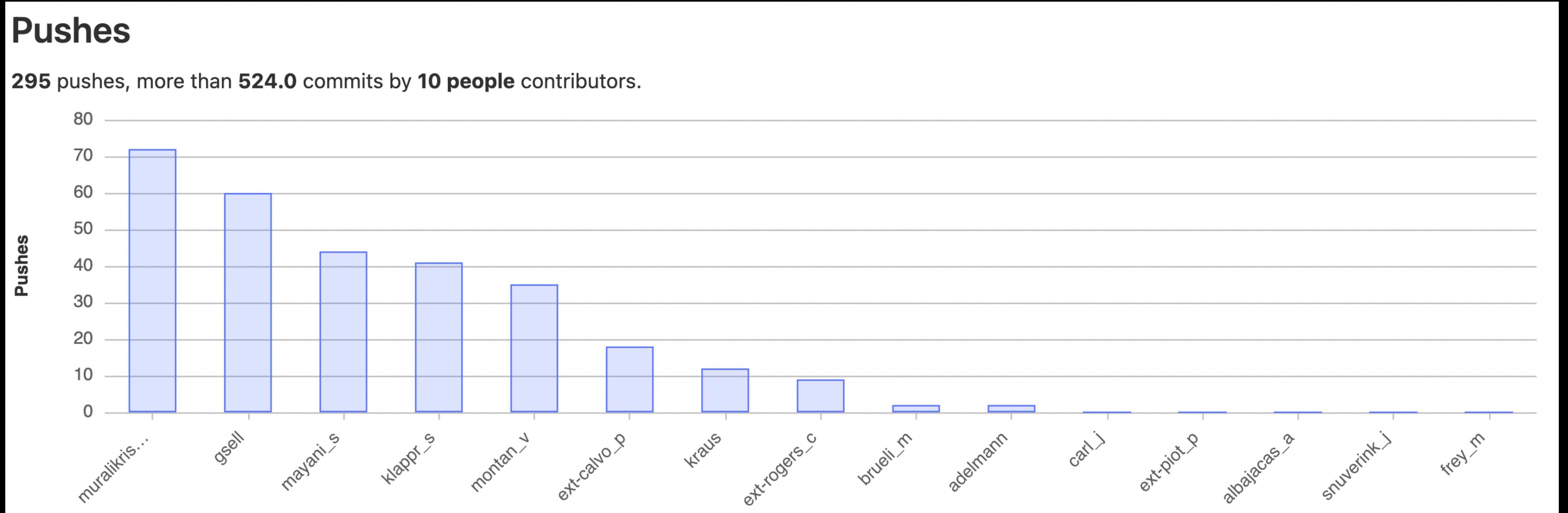


Virtual OPAL Developer Meeting 2022 December - Introduction

https://gitlab.psi.ch/groups/OPAL/-/contribution_analytics?start_date=2022-09-15



Content

1. Updates OPAL (A Adelmann)
2. Updates on IPPL V 2.x (S Muralikrishnan)
3. pyOPAL (N. Neveu & Ch Rogers)
4. Next releases (A Gsell)
5. Pressing open issues (all)

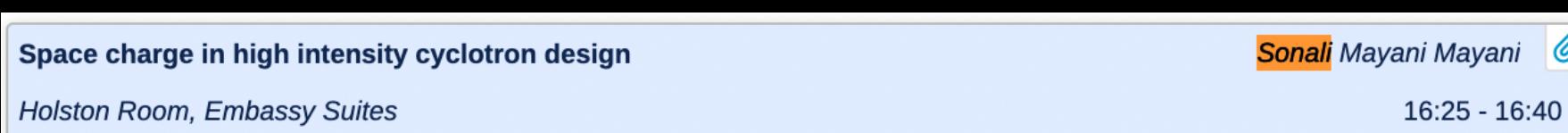
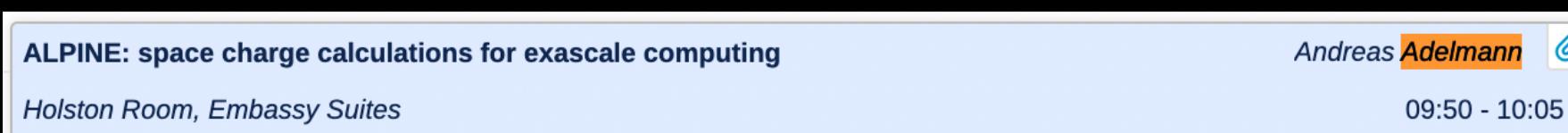
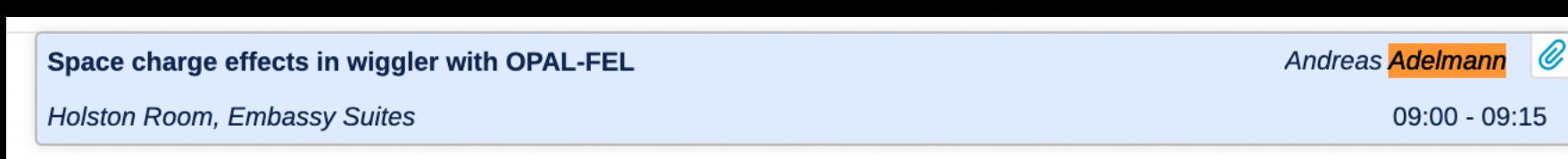
Updates

* WELCOME Philippe Piot



Updates

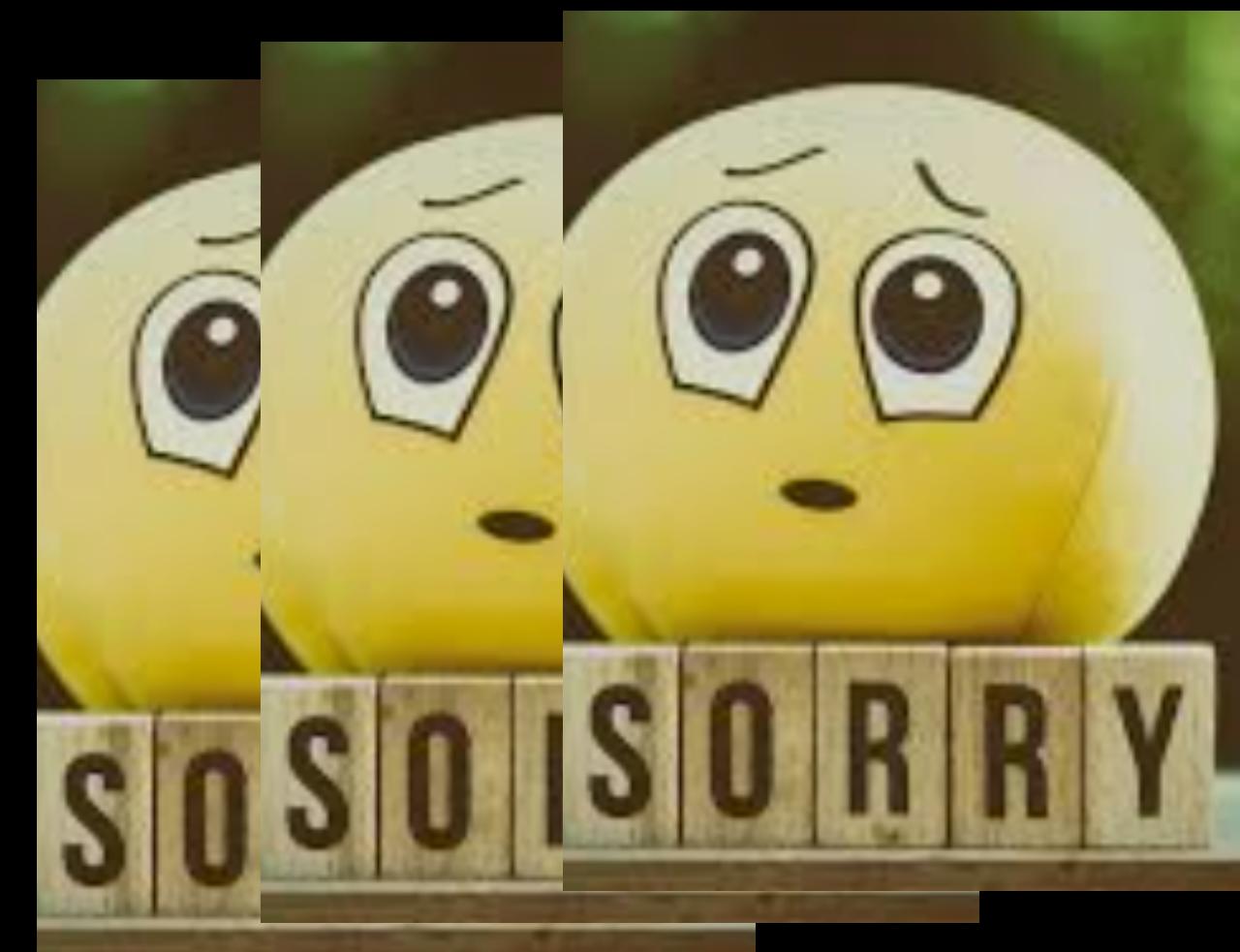
- * 100 101 member in the active mailing list (opal@lists.psi.ch)
- * presenting at SpaceCharge 2022
- * we had 3 oral presentation related to OPAL



At present the focus in large is on:

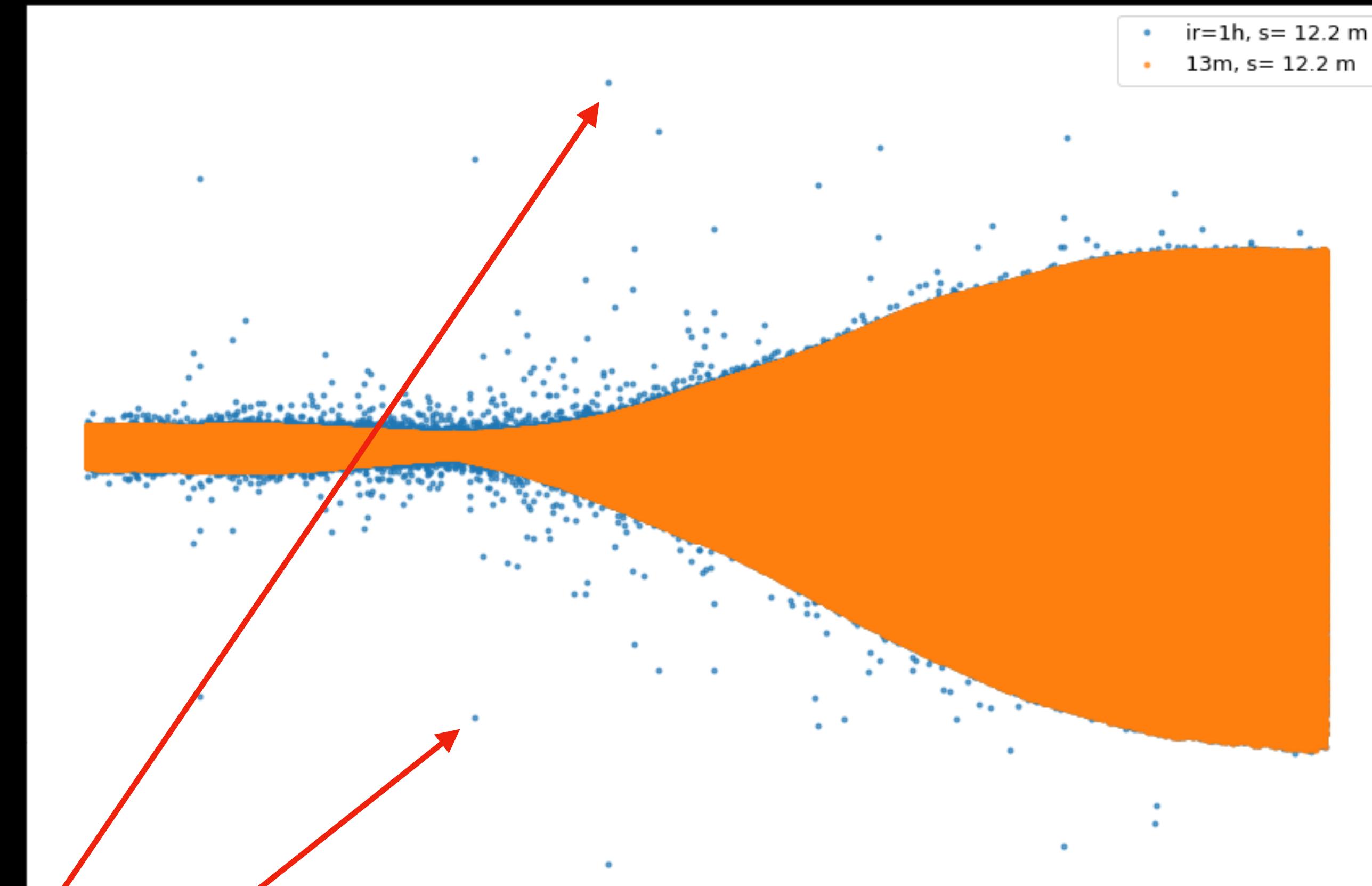
- continue consolidation & code cleanup
 - * remove sampler / optimiser ?
- working on bugfixes / feature requests
 - 11 11 bugs 20 19 feature requests
- Hiring Post Doc
<https://www.psi.ch/en/pa/job-opportunities/54968-postdoctoral-fellow>

* delayed OPAL paper



Current projects - 1

- IPPL 2.x (Sri & Matthias)
 - ✓ paper submitted CPC
(<https://arxiv.org/abs/2205.11052>)
- Ch Rogers / N Neveu
 - FFA modeling (Ring element)
 - pyOPAL
- Sri, Sonali & AA + MSc student
 - SwissFEL modeling there are hints that collisions play a role (from P3M model)
 - 3 new students for spring semester 2023 (dim-indep. IPPL, mixed-prec, Langevin coll.)



Current projects - 2

- Prepare OPAL for IPPL 2.x (AA)
 - ✓ adapt cmake such that IPPL is an external library
 - ✓ header file adaption
- Volunteer for replacing **Tensor** and/in **Quaternion** class

The screenshot shows the Boost QVM documentation page. At the top, there's a green banner with the Boost logo and a note about old documentation. Below the banner, the title "QVM: Quaternions, Vectors, Matrices" is prominently displayed. Underneath the title, there's a section titled "Quaternions, Vectors, Matrices". A snippet of code is shown, illustrating how to create a quaternion object that rotates around the X axis.

This is the documentation for an old version of boost. Click here for the latest Boost documentation.

“...one of the most highly regarded and expertly designed
— Herb Sutter and Andrei Alexandrescu

QVM: Quaternions, Vectors, Matrices

Quaternions, Vectors, Matrices

```
Out of the box Boost QVM defines generic yet simple quat, vec and mat types. For example, the following snippet creates a quaternion object that rotates around the X axis:
```