

Data Production AFG: Introduction and Mock Data Challenge



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05 May 2022

Data Production AFG - Scope

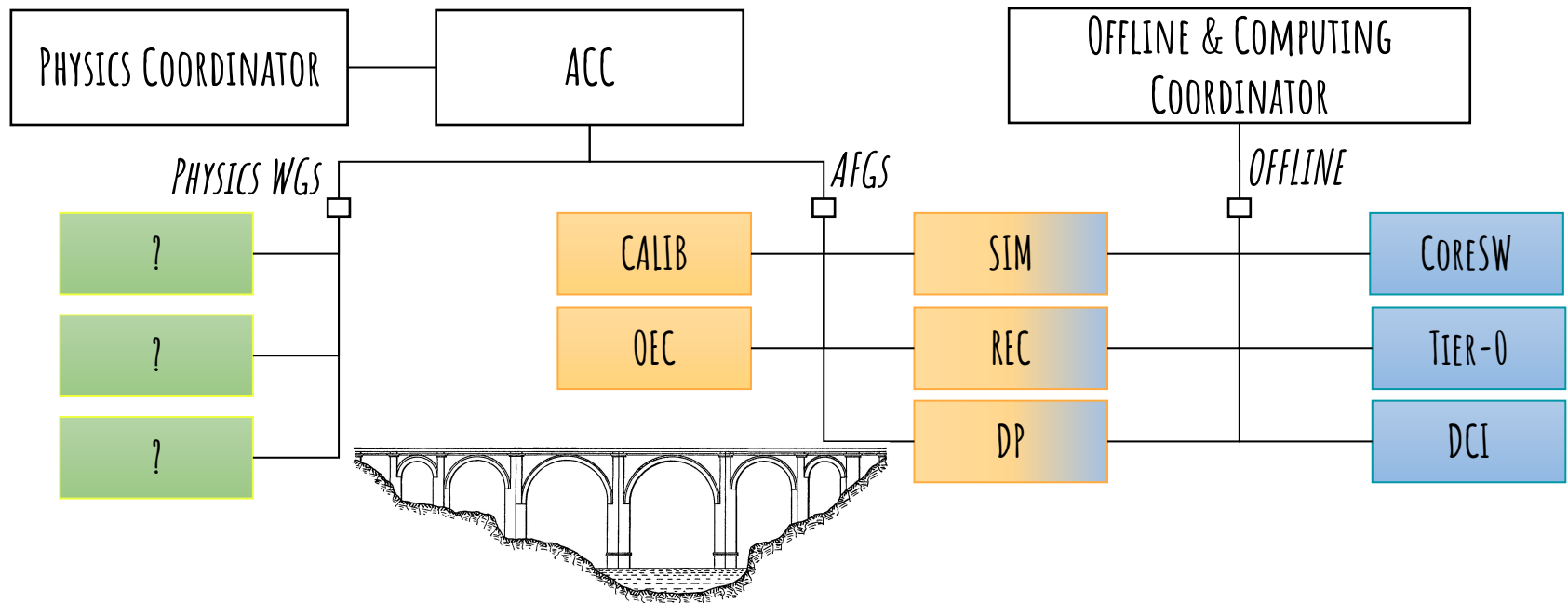
The **Data Production Analysis Foundation Group** (DP-AFG) was established by the Analysis Coordination Committee (ACC) on 18/11/2021.

https://juno.ihep.ac.cn/mediawiki/index.php/Analysis_Foundation_Groups/Data_production

Work scope:

- Design the production data flow and provide necessary software tools;
- Manage the Monte Carlo generation and real data production, as well as the data access;
- Data quality check, including the onsite data quality monitoring and the offline data monitoring;
- Cooperate with Tier0 computing and the distributed computing infrastructure (DCI) groups to manage the computing resources;
- Plan the production with ACC;
- Provide efficient and user-friendly web service for users to look up data and information of production (DataBase!).

AFG? PWG? OFFLINE? What is their relation?*



The Data production AFG should be the bridge between Physics analysis & Computing as well as a shared group between AFGs and Offline

The Mock Data Challenge

PURPOSE: the Mock Data Challenge wants to test the goodness of all the JUNO's software chain from a qualitatively/time side.

For each species of interest (backgrounds/signals) we already converged on the number of events to be generated.

STATUS: The Mock Data Challenge has already started (backgrounds only) but there isn't an "official" timeline.

It is divided into several stages, each consistent with a software release.

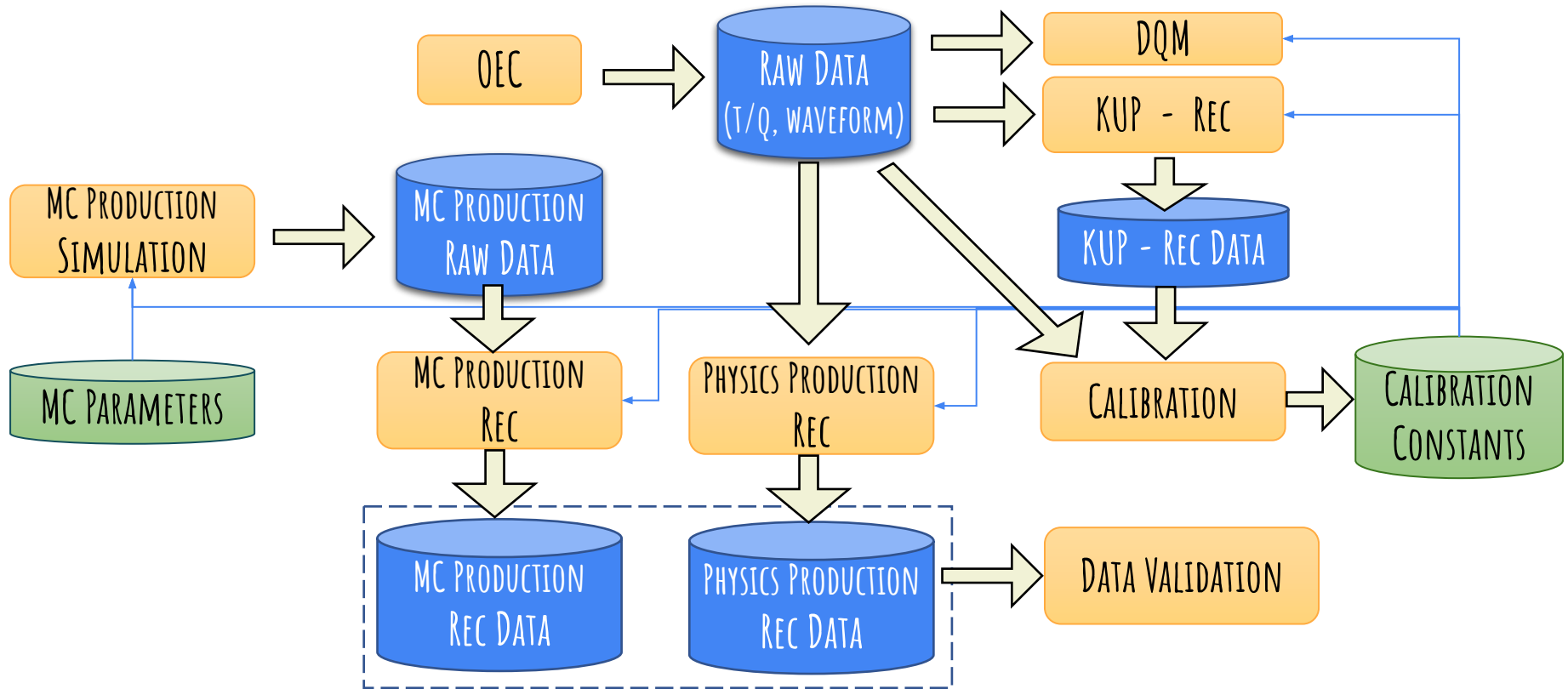
The J22.1.0-rc0 focus on the update of detector simulation: it's ready and it's being used to produce the detector simulation samples.

The new release (rc1) will focus on the update of EDM, electronics simulation and OEC. As there are still some problems found, the production of this stage is not started yet.

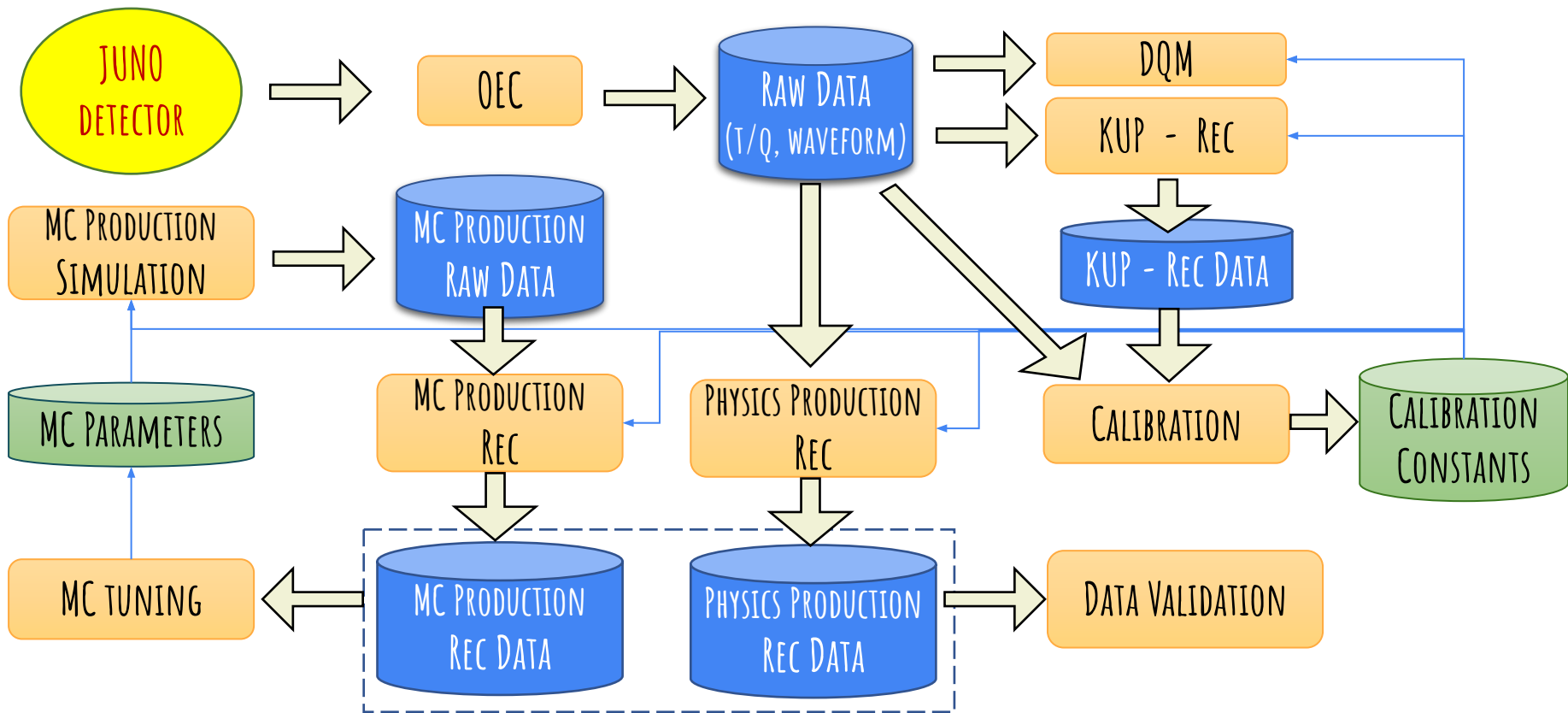
The next-new release (rc2) will focus on the update of reconstruction algorithm.

https://juno.ihep.ac.cn/mediawiki/index.php/Analysis_Foundation_Groups/Data_production/Mock_Data_Challenges

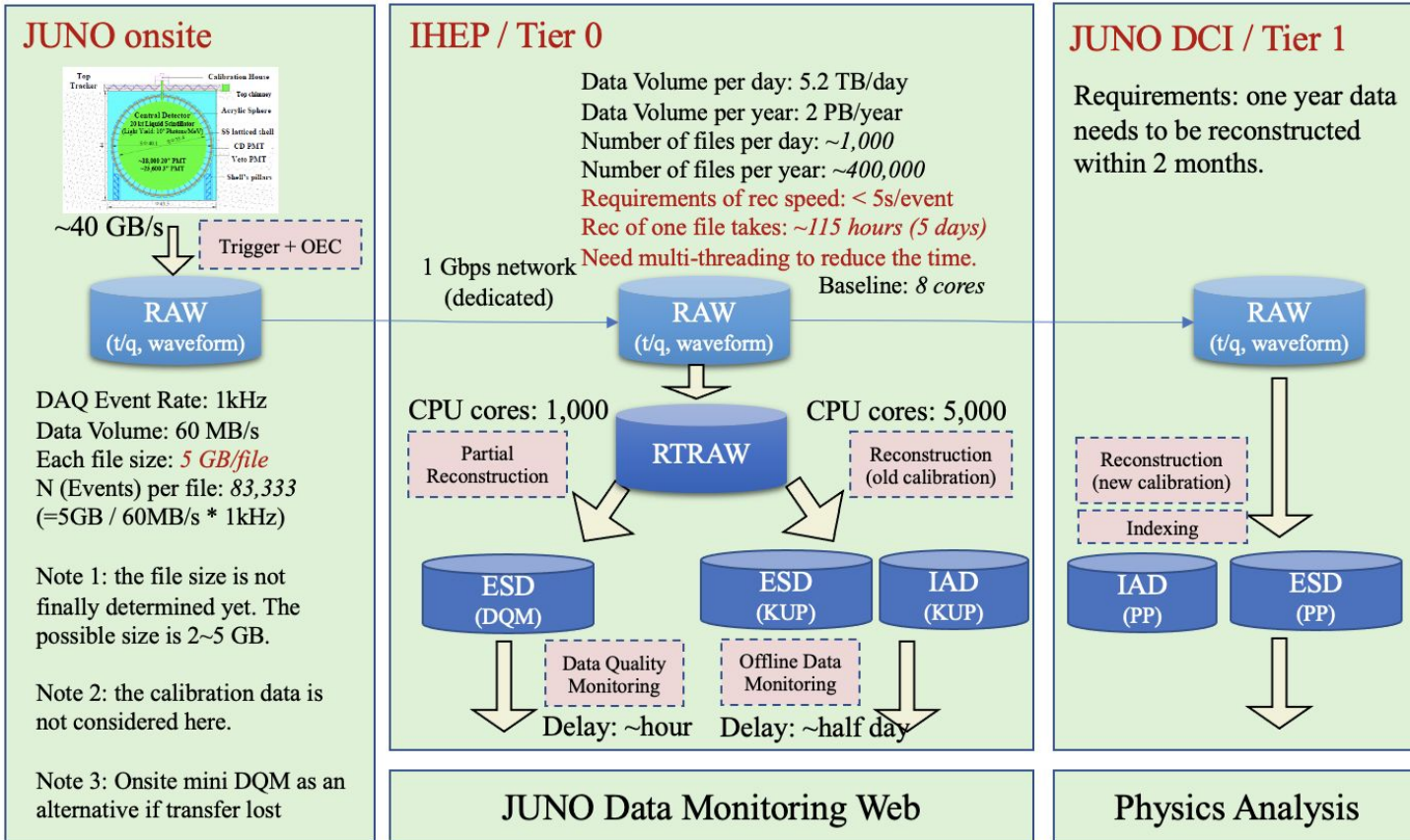
The Mock Data Challenge



The full chain of the Data Production



Data Production: Real Processing



Manpower

CONVENERS:

- Tao Lin, IHEP
- Zhengyun You, SYSU
- Alessandra Carlotta Re, INFN-MI

OTHER MEMBERS:

- Benda Xu (Faculty, Tsinghua) Monte Carlo data validation
- Sicheng Yuan (PhD student, IHEP) Keep-up data production
- Kaixuan Huang (PhD student, SYSU) Data Quality Monitoring
- Cailian Jiang, Jilei and Rui (MasterStudents?)
- Someone from Livia's group

