## Stave production monitoring

Ivan Ravasenga, Bogolyubov Institute for Theo. Phys.

14/10/2019

Monitoring from January 2018 to 14/10/2019

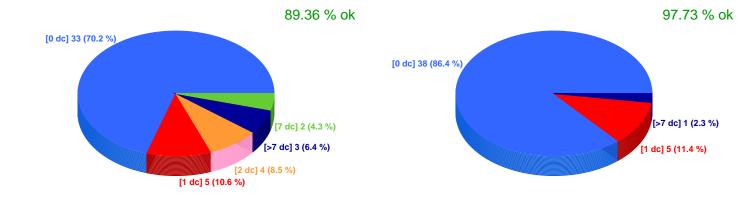
Stave meeting

# HS monitoring

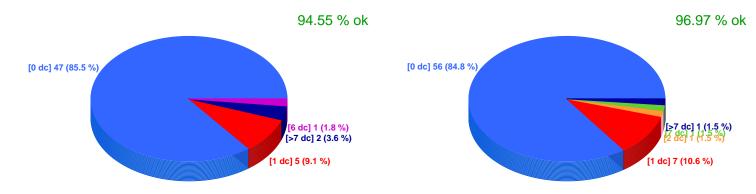
## **HSs of previous week**

**HSs** of this week

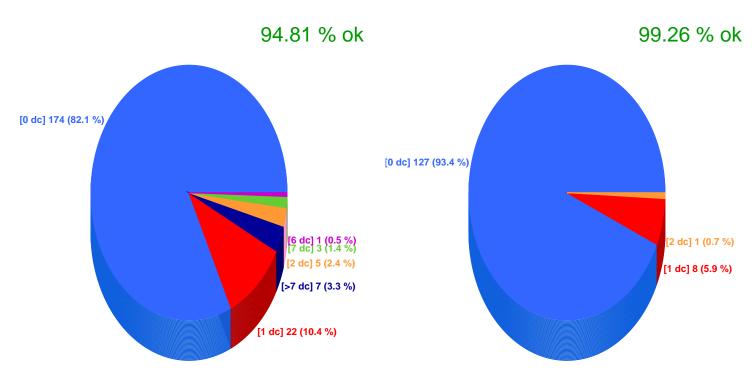






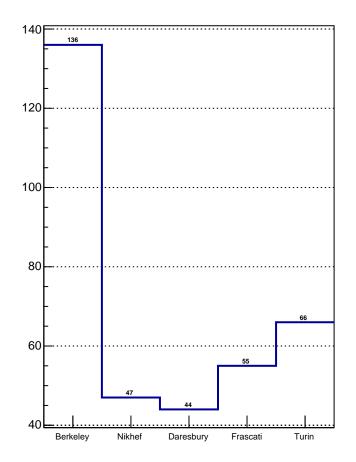


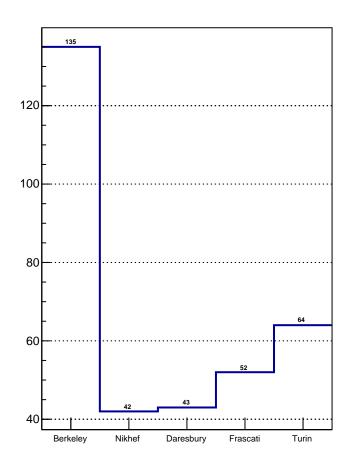
HS - OL HS - ML

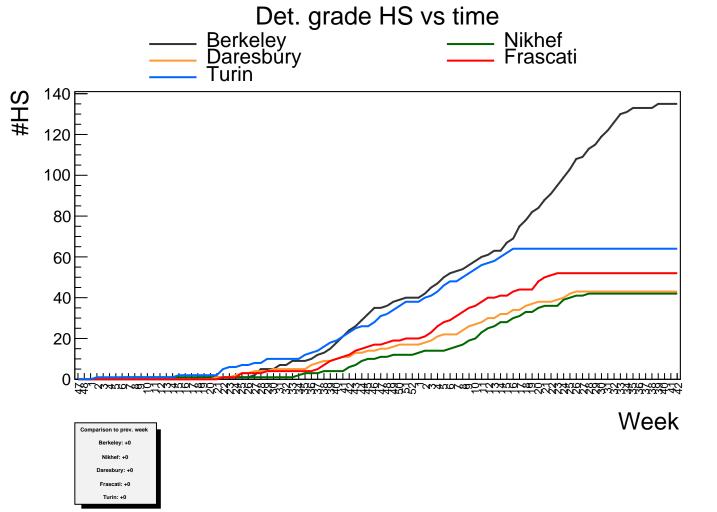


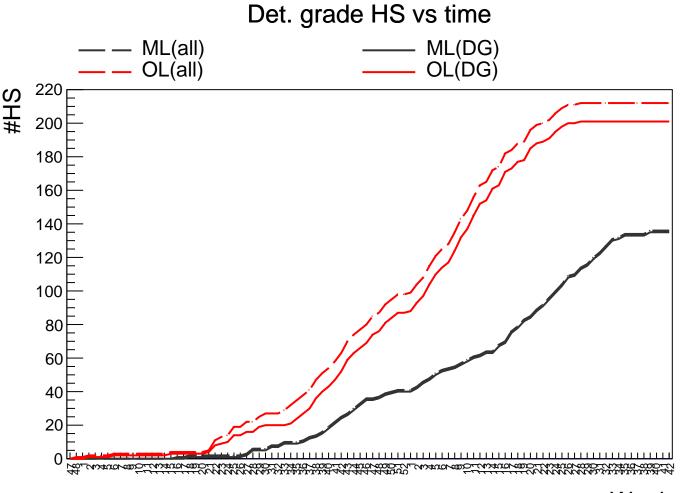


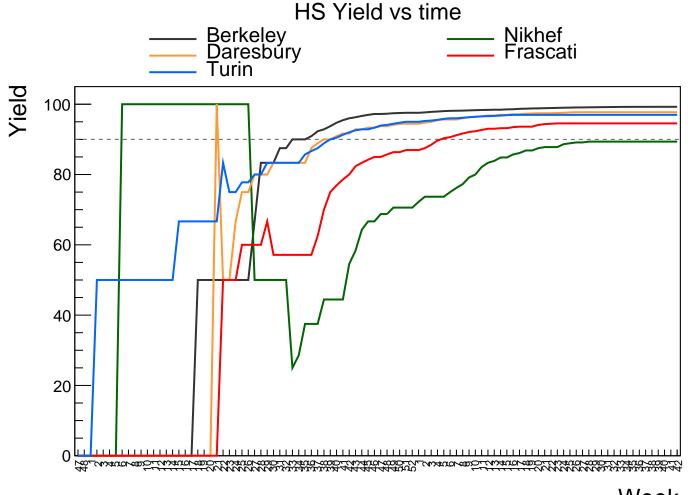
#### Det. Grade HS



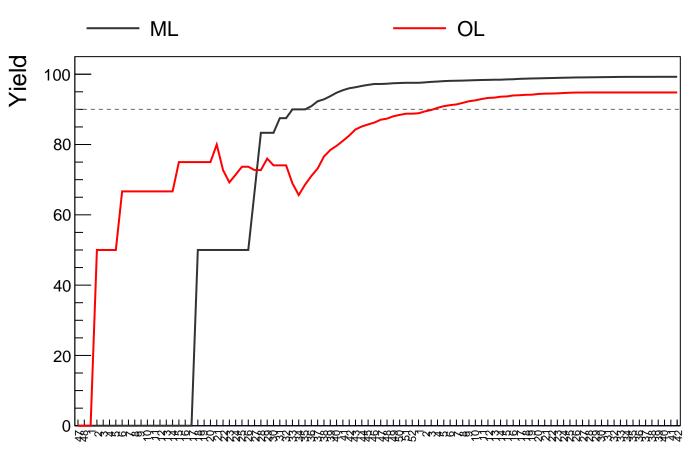








#### HS Yield vs time



Stave monitoring

## Staves of previous week

F-OL-Stave-026: (U,L)=(0, 0) bad chips

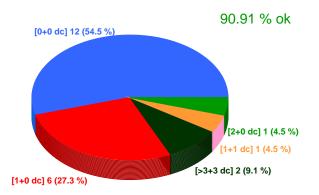
Staves of this week

[0+0 dc] 11 (52.4 %)
[>3+3 dc] 3 (14.3 %)

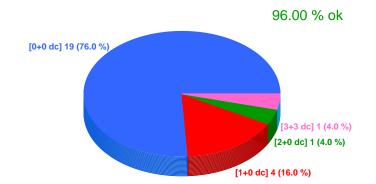
[1+0 dc] 3 (14.3 %)

Stave - Nikhef

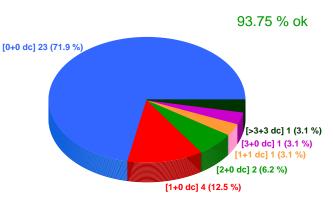
Stave - Daresbury

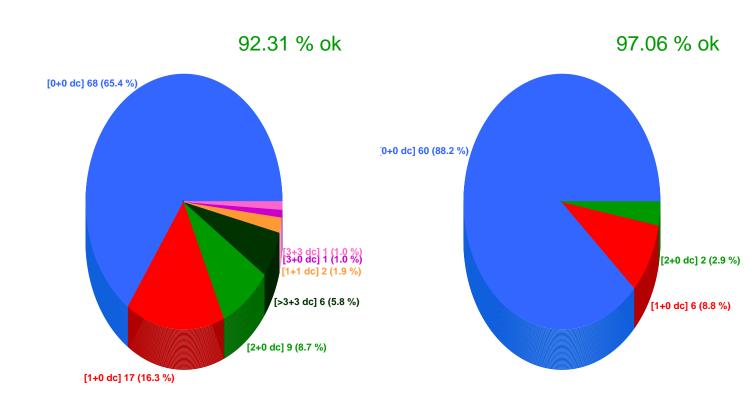


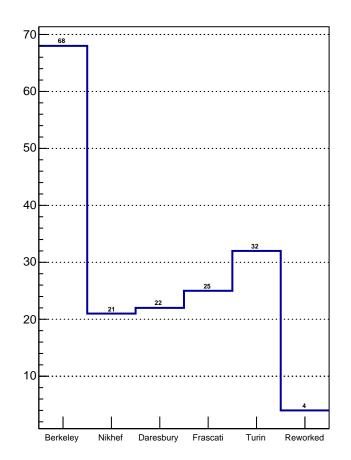
Stave - Frascati

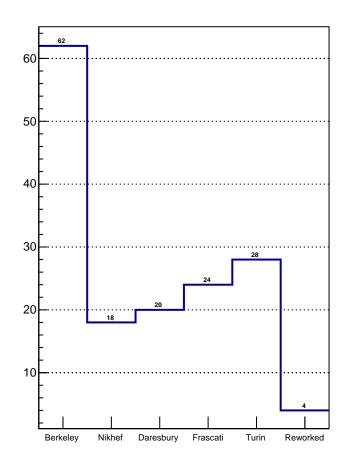


Stave - Turin



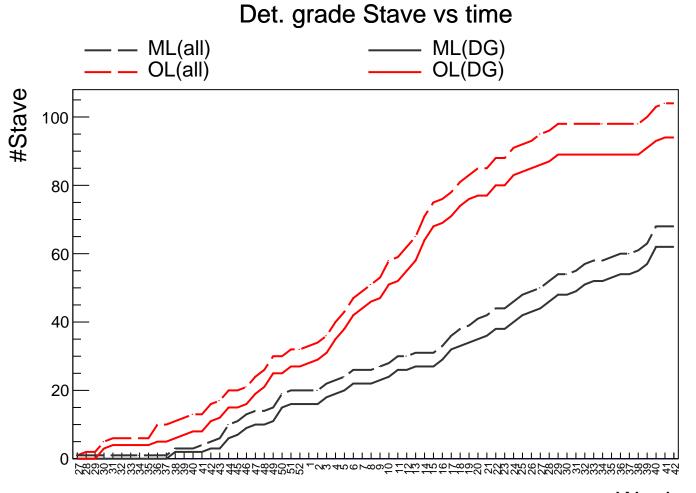


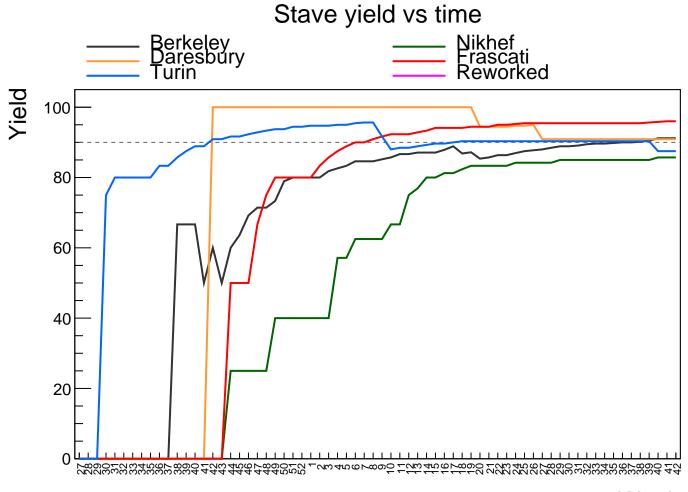




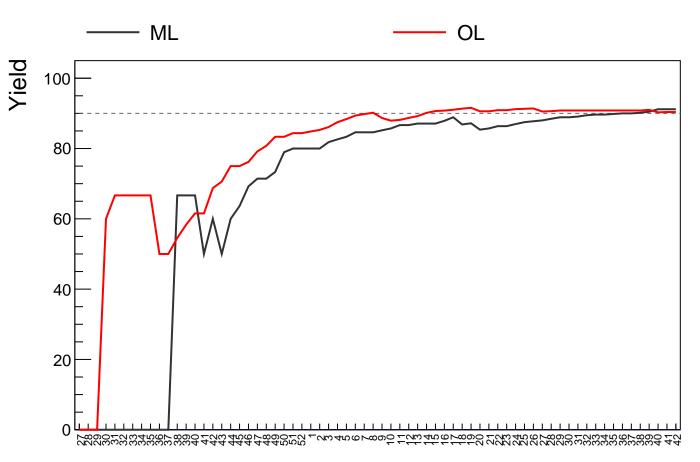
Det. grade Stave vs time Berkeley Daresbury Turin Nikhef Frascati Reworked #Stave 70 60 50 40 30 20 10 Week Comparison to prev. weel Berkeley: +0 Nikhef: +0 Daresbury: +0 Frascati: +0 Turin: +0

Reworked: +0





#### Stave yield vs time



```
Production rate (October 2018 - prev. week)**
            \rightarrow Berkeley: 1.25(all) -- 1.15(DG)
             → Nikhef: 0.35(all) -- 0.35(DG)
           \rightarrow Daresbury: 0.42(all) -- 0.38(DG)
            → Frascati: 0.46(all) -- 0.46(DG)
     \rightarrow Turin: 0.76(all) -- 0.69(DG) \rightarrow Prod. ended
                 OL: 1.99(all) -- 1.88(DG)
                 ML: 1.25(all) -- 1.15(DG)
Rework rate (from June 1st, 2019): 0.20(all) -- 0.20(DG)
```

\*\*Christmas holiday excluded (2 weeks)

```
Production rate 2019 (month by month)**
                 January
    → Berkeley: 1.00(all) -- 1.00(DG)
     → Nikhef: 0.50(all) -- 0.50(DG)
   → Daresbury: 0.75(all) -- 0.75(DG)
     → Frascati: 1.00(all) -- 1.00(DG)
     → Turin: 0.25(all) -- 0.25(DG)
         OL: 2.50(all) -- 2.50(DG)
         ML: 1.00(all) -- 1.00(DG)
                February
    → Berkeley: 0.80(all) -- 0.80(DG)
     → Nikhef: 0.20(all) -- 0.20(DG)
   → Daresbury: 0.80(all) -- 0.80(DG)
     → Frascati: 0.80(all) -- 0.80(DG)
      → Turin: 0.80(all) -- 0.60(DG)
         OL: 2.60(all) -- 2.40(DG)
         ML: 0.80(all) -- 0.80(DG)
                 March
    → Berkeley: 1.00(all) -- 1.00(DG)
     → Nikhef: 1.00(all) -- 1.00(DG)
    → Daresbury: 0.40(all) -- 0.40(DG)
     → Frascati: 0.60(all) -- 0.60(DG)
      → Turin: 0.80(all) -- 0.40(DG)
        OL: 2.80(all) -- 2.40(DG)
         ML: 1.00(all) -- 1.00(DG)
                  April
    → Berkeley: 1.40(all) -- 1.20(DG)
     → Nikhef: 0.80(all) -- 0.80(DG)
   → Daresbury: 1.00(all) -- 1.00(DG)
     → Frascati: 0.60(all) -- 0.60(DG)
      → Turin: 0.80(all) -- 0.80(DG)
         OL: 3.20(all) -- 3.20(DG)
         ML: 1.40(all) -- 1.20(DG)
    → Berkeley: 1.60(all) -- 1.20(DG)
     → Nikhef: 0.40(all) -- 0.40(DG)
   → Daresbury: 0.60(all) -- 0.40(DG)
     → Frascati: 0.60(all) -- 0.60(DG)
      → Turin: Production ended
        OL: 1.60(all) -- 1.40(DG)
         ML: 1.60(all) -- 1.20(DG)
                  June
    → Berkeley: 1.25(all) -- 1.25(DG)
     → Nikhef: 0.25(all) -- 0.25(DG)
   → Daresbury: 0.50(all) -- 0.50(DG)
     → Frascati: 0.50(all) -- 0.50(DG)
      → Turin: 0.00(all) -- 0.00(DG)
         OL: 1.25(all) -- 1.25(DG)
         ML: 1.25(all) -- 1.25(DG)
```

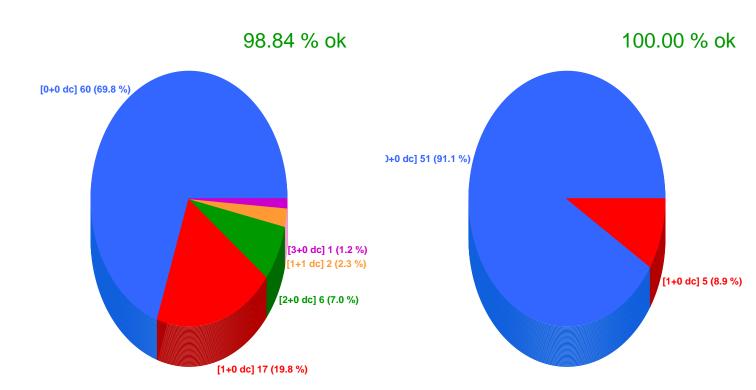
Stave reception @CERN

# A-OL-Stave-018: (U,L)=(0, 0) bad chips A-OL-Stave-017: (U,L)=(2, 0) bad chips B-ML-Stave-068: (U,L)=(1, 0) bad chips

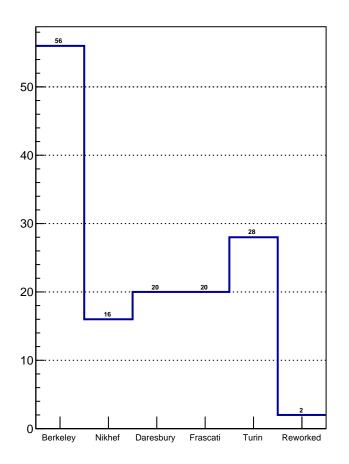
B-ML-Stave-014: (U,L)=(0, 0) bad chips B-ML-Stave-006: (U,L)=(0, 0) bad chips

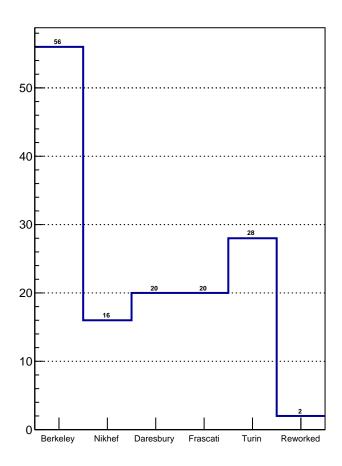
B-ML-Stave-067: (U,L)=(0, 0) bad chips B-ML-Stave-066: (U,L)=(0, 0) bad chips B-ML-Stave-065: (U,L)=(0, 0) bad chips B-ML-Stave-050: (U,L)=(0, 1) bad chips

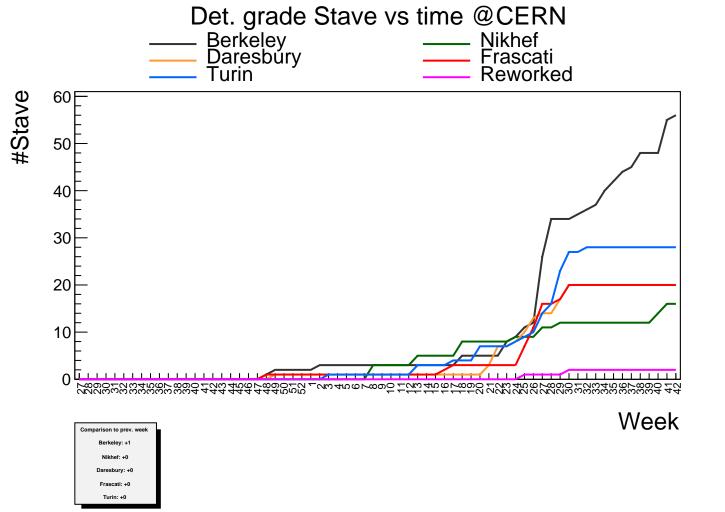
Staves qualified this week



Det. Grade Stave @CERN







### Det. grade Stave vs time @CERN ML(all) ML(DG) OL(DG) OL(all) #Stave 90 80 70 60 50 40 30 20 10

Qualification rate (December 2018 - prev. week)\*\*

Berkeley: 1.26(all) -- 1.26(DG)

Nikhef: 0.37(all) -- 0.37(DG)

Daresbury: 0.47(all) -- 0.47(DG)

Frascati: 0.44(all) -- 0.44(DG) Turin: 0.65(all) -- 0.65(DG)

OL: 1.93(all) -- 1.93(DG) ML: 1.26(all) -- 1.26(DG)

\*\*Christmas holiday excluded (2 weeks)

HS without a Stave

HSs (DG) not yet tested as Stave HSs (non-DG) not yet tested as Stave A-OL-HS-U-009: 2 bad chips F-OL-HS-U-027: 0 bad chips F-OL-HS-L-027: 0 bad chips **A-OL-HS-L-004: 14 bad chips -> rework(?)** A-OL-HS-U-022: 0 bad chips

#### Stave not DG

#### Staves not DG - reworkable

D-OL-Stave-008: (U,L) = (0, 14) bad chips

A-OL-Stave-001: (U,L) = (2, 14) bad chips A-OL-Stave-002: (U,L) = (7, 49) bad chips

A-OL-Stave-002: (U,L) = (7, 49) bad chips A-OL-Stave-003: (U,L) = (0, 28) bad chips

A-OL-Stave-003: (U,L) = (0, 28) bad chips F-OL-Stave-002: (U,L) = (3, 3) bad chips

T-OL-Stave-003: (U,L) = (6, 2) bad chips D-OL-Stave-001: (U,L) = (7, 13) bad chips

Staves not DG - not reworkable

B-ML-Stave-039: (U,L) = (0, 2) bad chips B-ML-Stave-001: (U,L) = (2, 0) bad chips