

# Summary of scanning

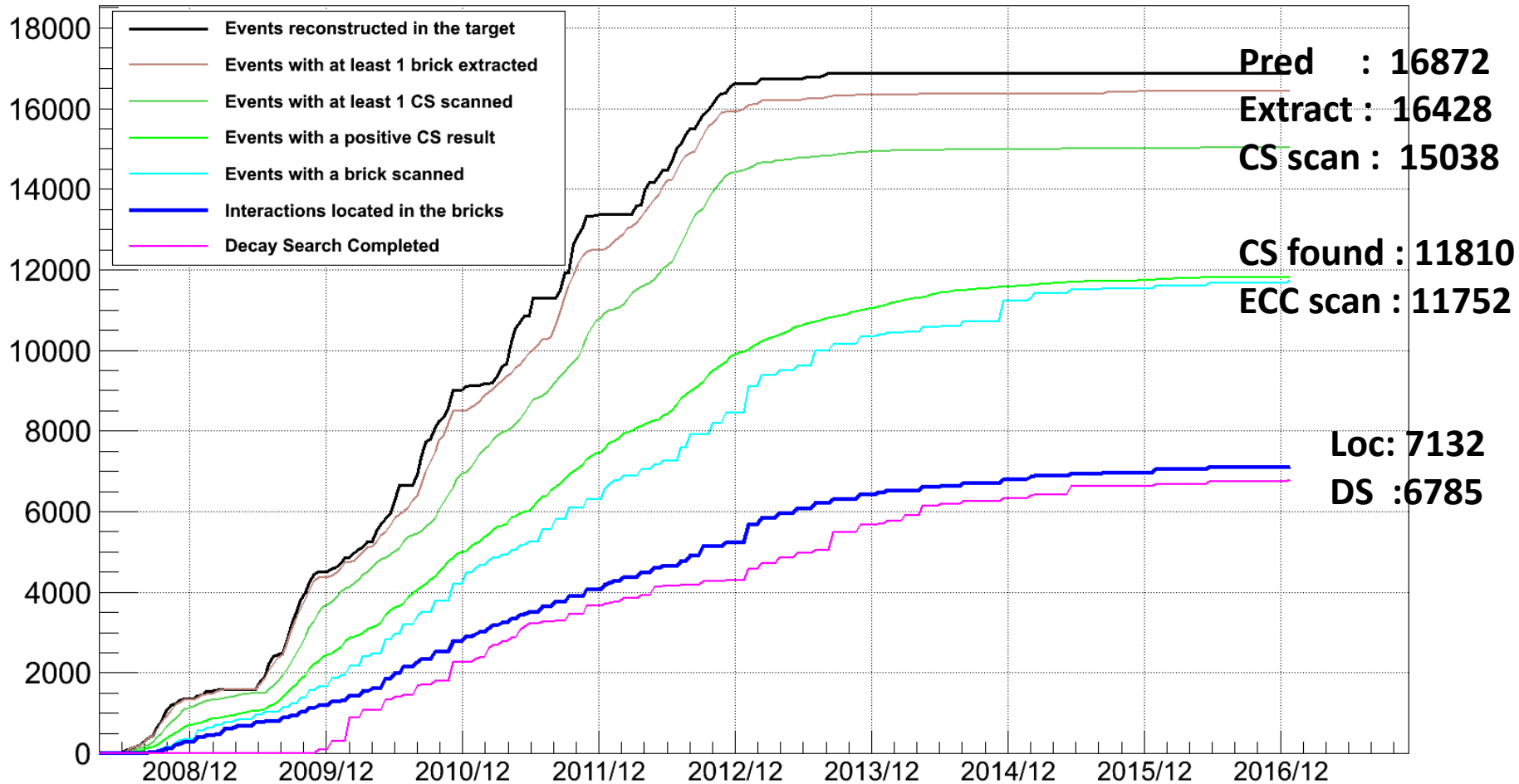
O.Sato

On behalf of scanning laboratories

# Final Performance plot

status at 16<sup>th</sup> Jan 2017

Run 2008 → 2012



# Final Statistics for the analysis

- The statistics, analyzed number of events were frozen at 5<sup>th</sup> Dec 2016 .
- Same counting method a la 5<sup>th</sup> tau paper for the  $\nu\mu \rightarrow \nu\tau$  oscillation (Marginal event) analysis.

Tau\_decay\_searched && (1<sup>st</sup> || 2nd) && (1mu && Pmu<15GeV/C || 0mu)  
→ 5603 events

- 0mu located similar definition as 5<sup>th</sup> tau paper and additional criteria of event type for  $\nu e$  analysis

Located && (1<sup>st</sup> || 2nd ) && 0mu && (CONTAINED || BORDERSOFTNC)  
&& !(BLACK\_DE\_DEVELOP || WRONG\_CS\_HANDLIN)  
→ 1185 events

# Statistics at 5<sup>th</sup> Dec

same definition with 5<sup>th</sup> tau paper

Run year	0mu DS	1mu DS	0mu loc	1mu loc
2008	150	543	156	556
2009	255	1024	268	1042
2010	278	1001	296	1029
2011	291	1031	315	1093
2012	223	807	246	867
TOTAL	1197	4406	1281	4587

**15 GeV cut for 1mu**

**1<sup>st</sup> and 2<sup>nd</sup> bricks**

**5603 TcauDecaySearched**

**5868 Located**

# Comparison with 5<sup>th</sup> tau paper

Run year	0mu DS	1mu DS	0mu loc	1mu loc
2008	149 +1	542 +1	155 +1	555 +1
2009	253 +2	1020 +4	266 +2	1036 +6
2010	268 +10	968 +33	281 +15	989 +40
2011	270 +21	966 +65	293 +22	1016 +77
2012	204 +19	768 +39	228 +18	818 +49
<b>TOTAL</b>	<b>1144 +53</b>	<b>4264 +142</b>	<b>1223 +58</b>	<b>4414 +173</b>

DS done 5408(5<sup>th</sup> paper) + 195 → 3.6% increased.

Loc done 5637 + 231

# Statistics at 5<sup>th</sup> Dec for ve analysis

Run year	0mu Located	&& Additional cuts
2008	156	138
2009	268	242
2010	296	279
2011	315	296
2012	246	230
TOTAL	1281	1185

&& (1<sup>st</sup> | |2nd ) && 0mu && (CONTAINED | | BORDERSOFTNC)  
&& !(BLACK\_DE\_DEVELOP | | WRONG\_CS\_HANDLIN

# Summary

- Analyzed number of events are frozen 5<sup>th</sup> Dec 2016 .
- Total out put from scanning laboratories  
All brick rank , no  $P_\mu$  cut  
15,038 CS scanned, 11,752 ECC scanned  
7,132 Located , 6,785 Decay\_Searched. (in event base)
- Counting 1<sup>st</sup> and 2<sup>nd</sup> brick rank and  $P_m < 15\text{GeV}$  for following analysis.
- $1197(0_\mu) + 4406(1_\mu) = 5603$  events for  $\nu_\mu \rightarrow \nu_\tau$  oscillation (Marginal events) analysis.
- 1185( $0_\mu$ ) events for  $\nu_e$  analysis.