Reporte de Actividades

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06 de Julio de 2012

Contenido

- Cósmicos
- UPC
- Tesis

Status of cosmic ray trigger

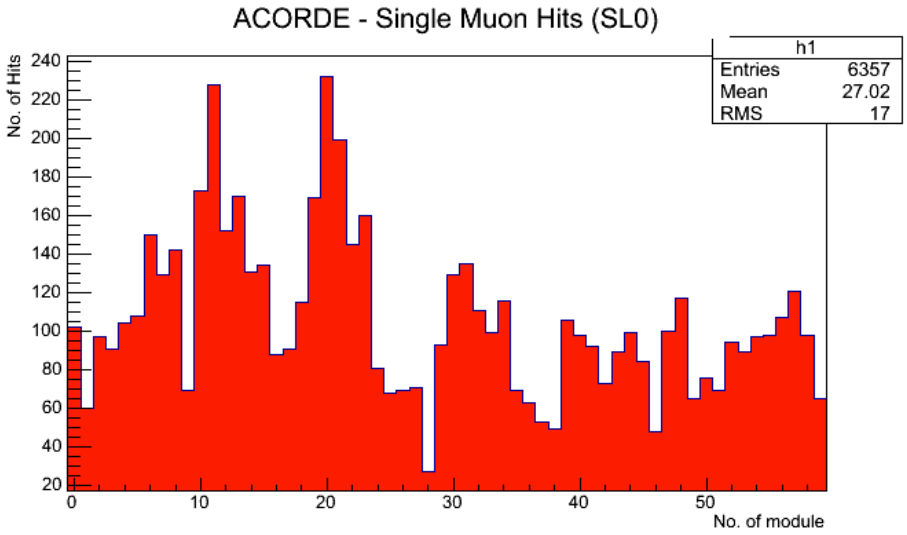
LIST OF RUNS SINCE TS (>10 min.)

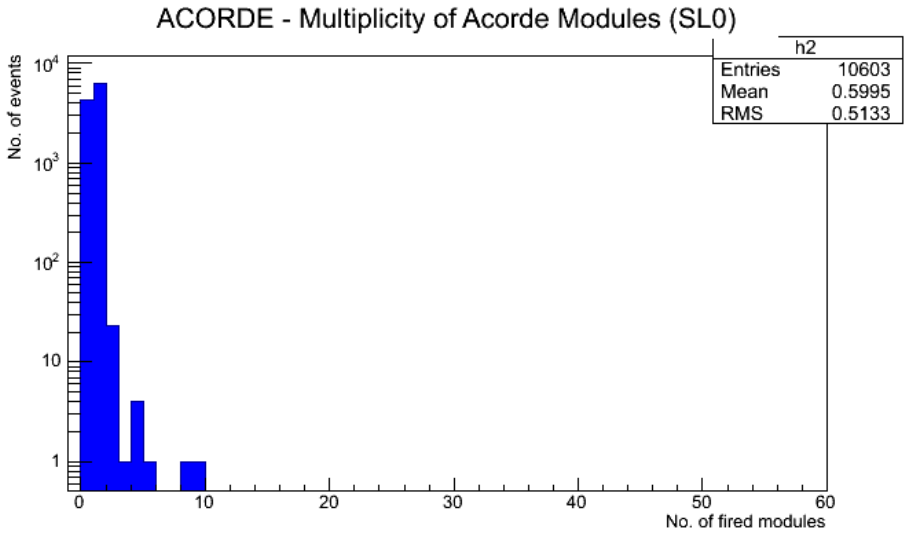
183913, 183916, 183933, 183934, 183935, 183936, 183937, 183938, 183942, 183946, 184000, 184126, 184127, 184131, 184132, 184134, 184135, 184137, 184138, 184140, 184144, 184145, 184147, 184183, 184188, 184208, 184209, 184210, 184215

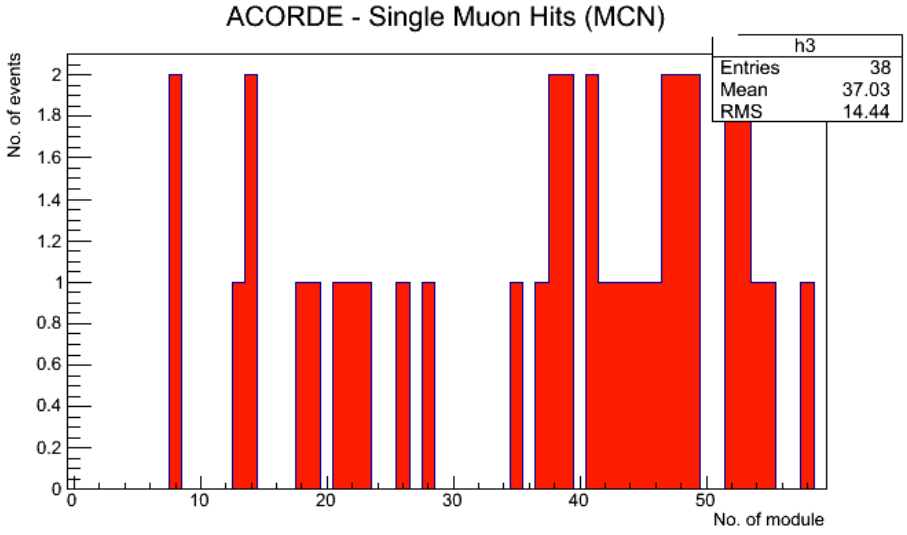
https://alice-logbook.cern.ch/logbook/date_online.php?p_cont=sb&p_rspn=1&p_rsob=l.run&p_rsob_dir=DESC&prsf_rts=%2C%2C5&ptcf_rtc=ACORDE%3B%2CAt+least%2CACORDE%3B%2CAt+least&prsf_rdur=10+m%2C%2C

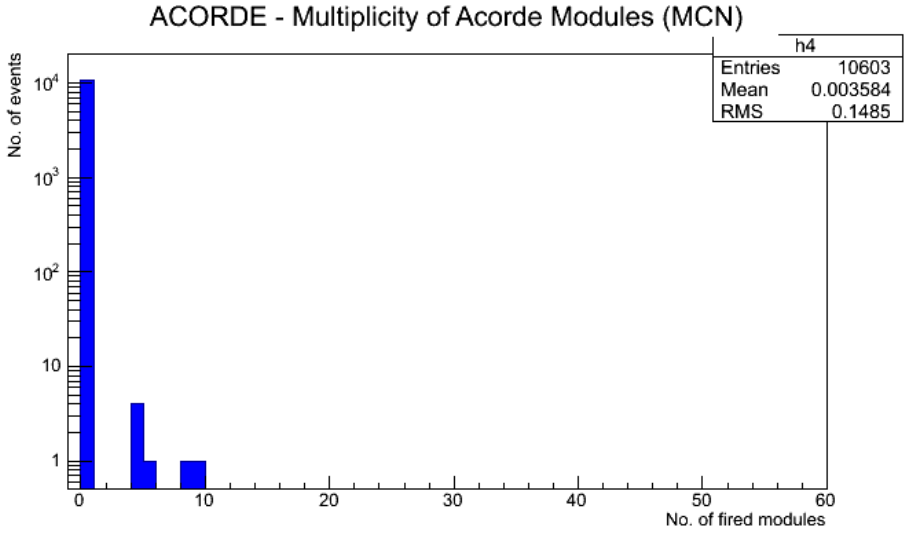
516164 events triggered by ACORDE
512996 events with MCN=0
3168 events triggered with MCN>=4

Status of cosmic ray trigger

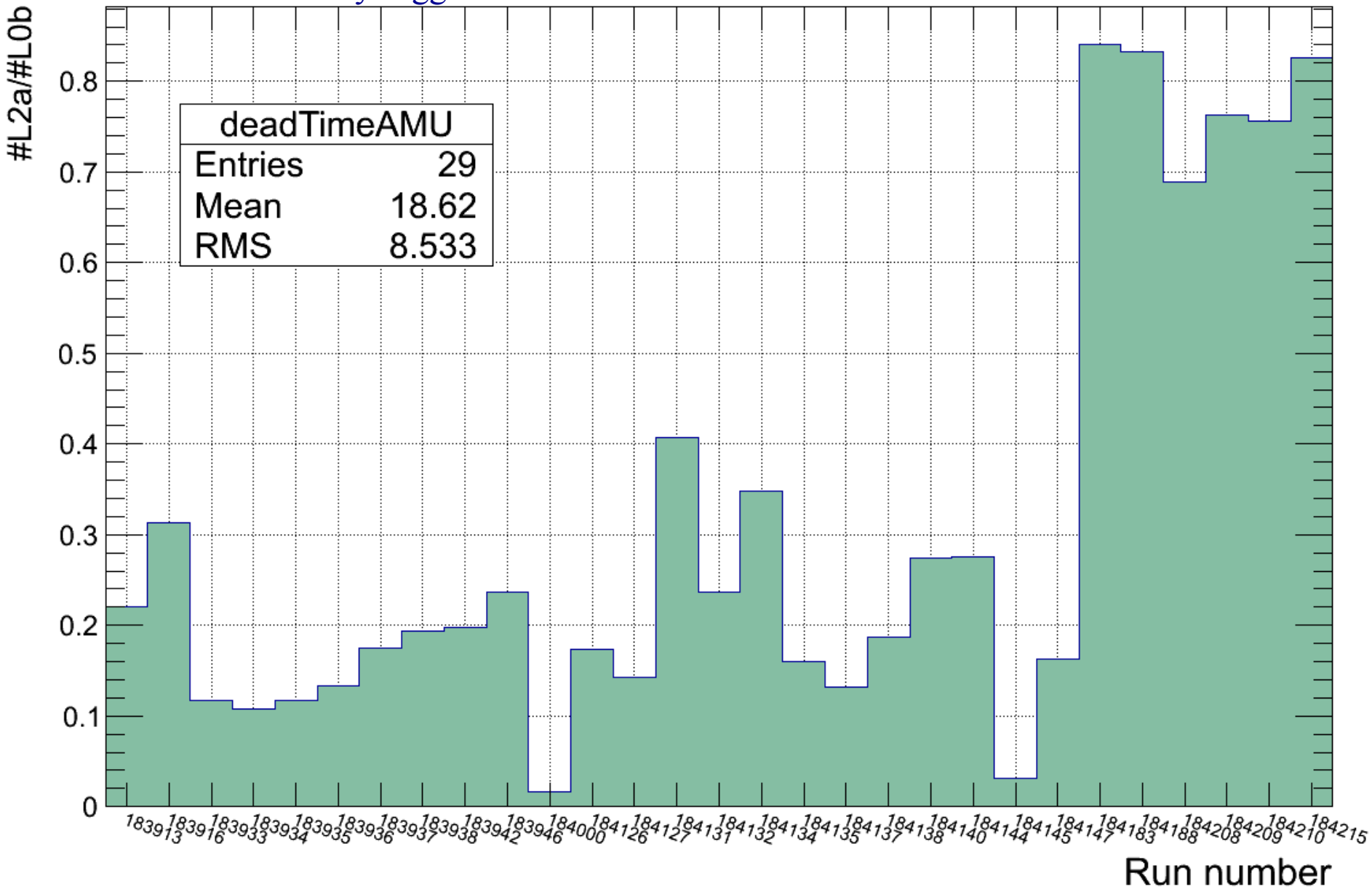




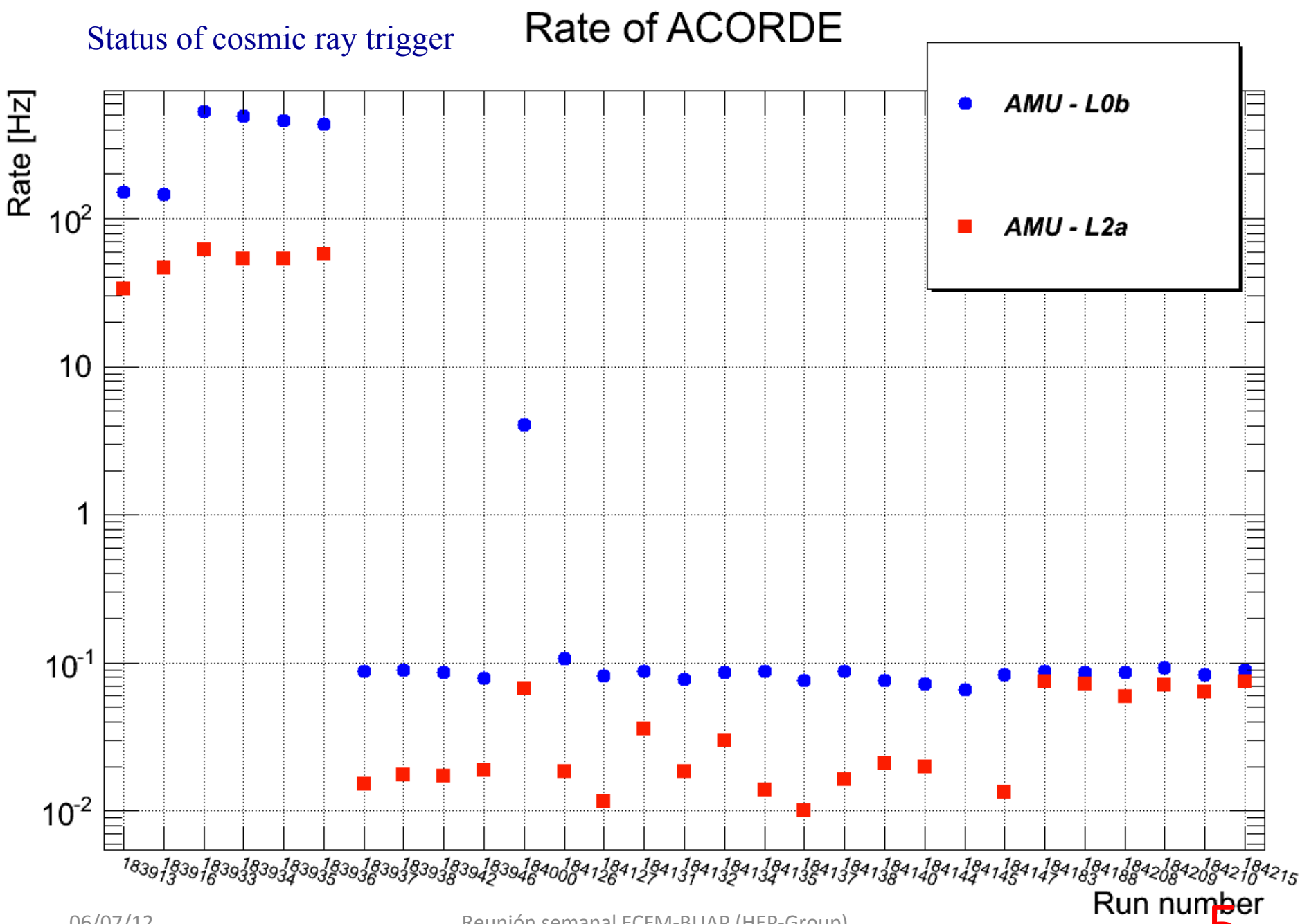




Status of cosmic ray trigger

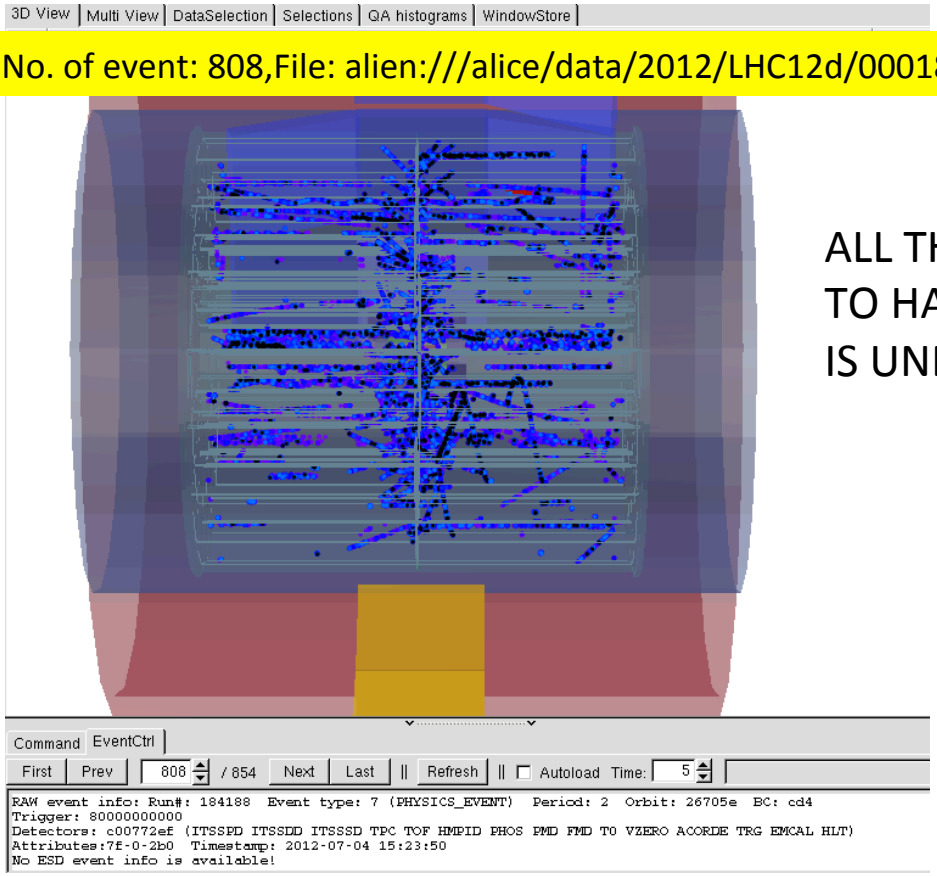


Status of cosmic ray trigger



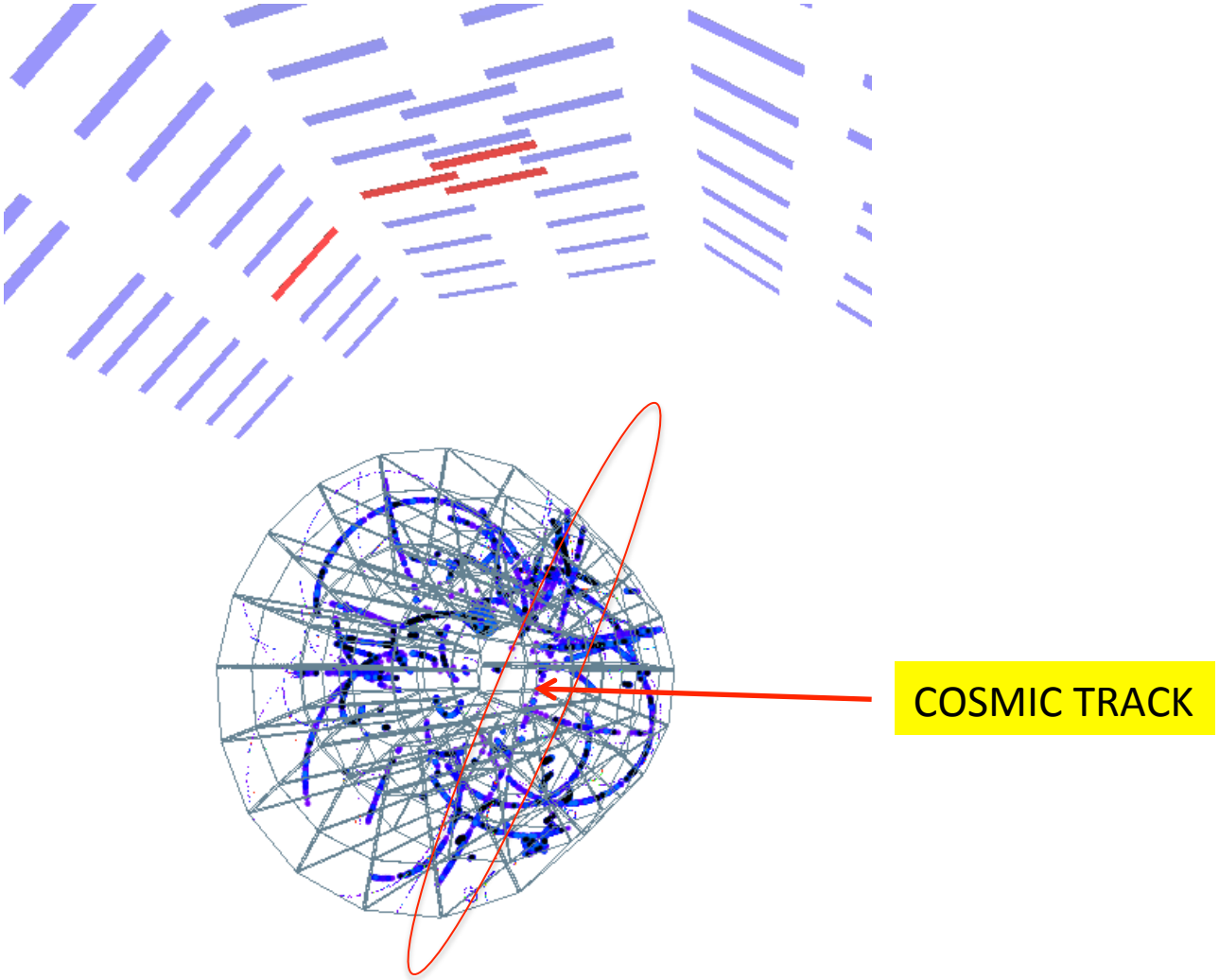
Status of cosmic ray trigger

No. of event: 770 File: alien:///alice/data/2012/LHC12d/000184188/raw/12000184188007.23.root nAMU: 4
No. of event: 338 File: alien:///alice/data/2012/LHC12d/000184188/raw/12000184188007.24.root nAMU: 9
No. of event: 816 File: alien:///alice/data/2012/LHC12d/000184188/raw/12000184188007.24.root nAMU: 8
No. of event: 212 File: alien:///alice/data/2012/LHC12d/000184188/raw/12000184188007.31.root nAMU: 4
No. of event: 244 File: alien:///alice/data/2012/LHC12d/000184188/raw/12000184188007.37.root nAMU: 4
No. of event: 179 File: alien:///alice/data/2012/LHC12d/000184188/raw/12000184188007.16.root nAMU: 4
No. of event: 808 File: alien:///alice/data/2012/LHC12d/000184188/raw/12000184188007.17.root nAMU: 5



ALL THE EVENTS TRIGGERED BY ACORDE SEEMS TO HAVE RAW TRACKS IN THE TPC ➔ SCANING IS UNDER PROGRESS TO CONFIRM

Status of cosmic ray trigger



DATA ANALYSIS

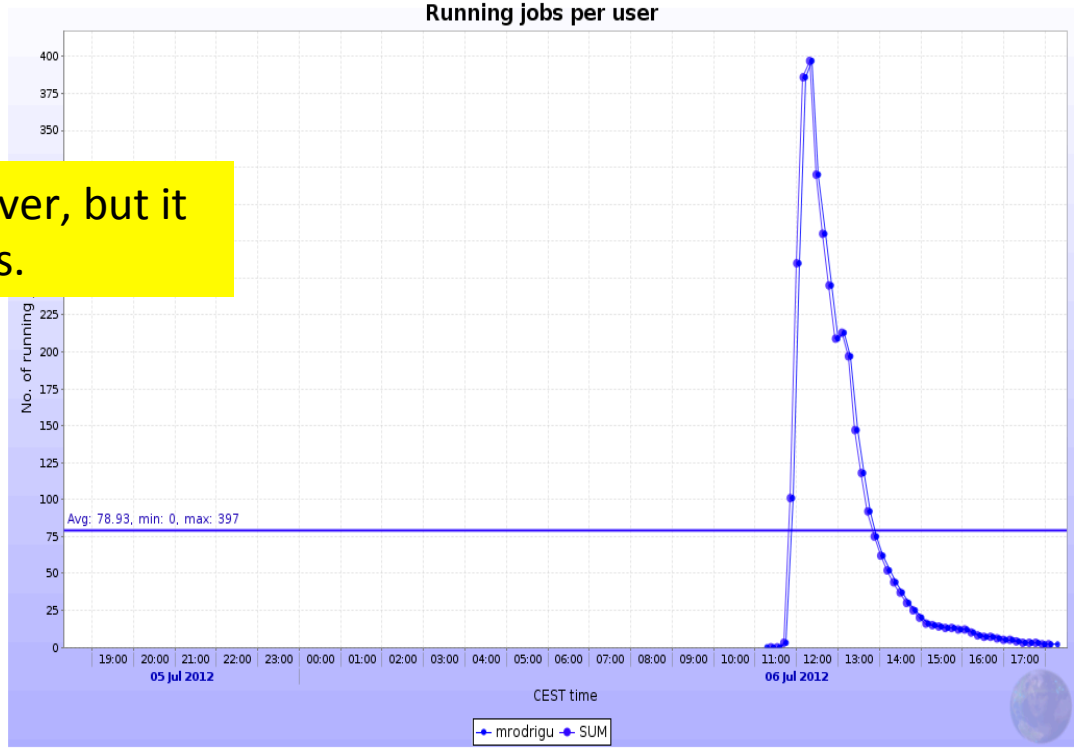
For 2012, there are 60 runs (PASS1) reconstructed according with MonaLisa:

http://alimonitor.cern.ch/raw/raw_details.jsp?timesel=0&filter_jobtype=LHC+periods+LHC12a%2Cb%2Cc+-+cosmics+run+reconstruction

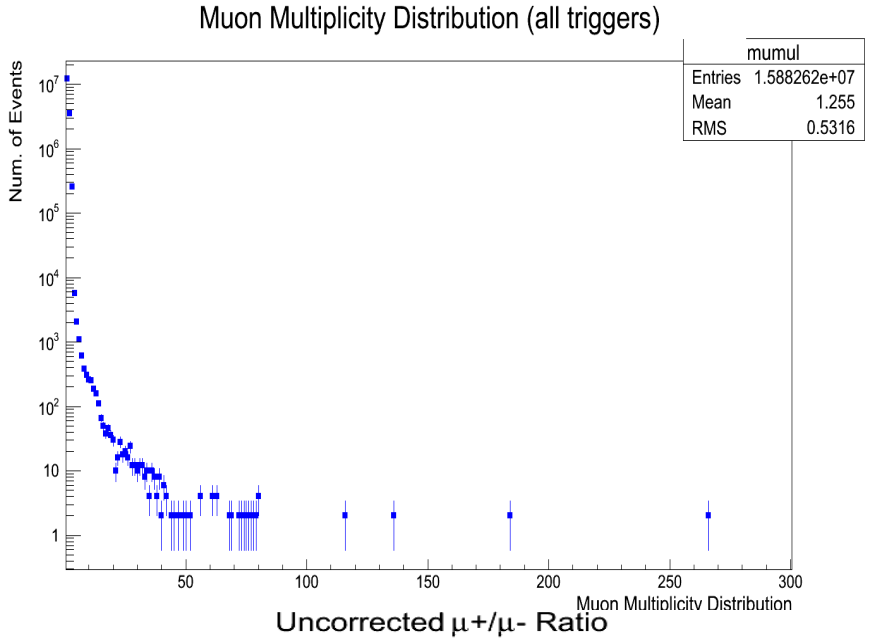
Total number of reconstructed events: **63,763,267**

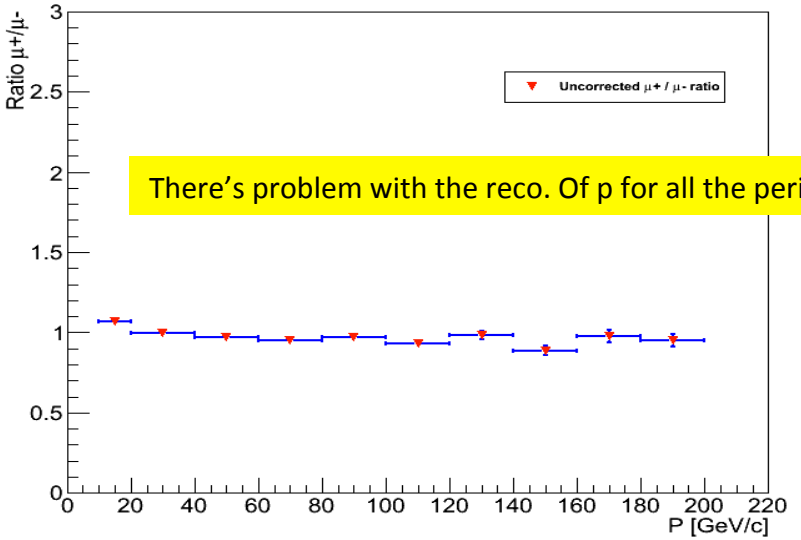
The analysis over the new statistic is over, but it still pending the merging of all the jobs.

SOFTWARE
ROOT: v5-33-02b
ALIROOT v5-04-25-AN

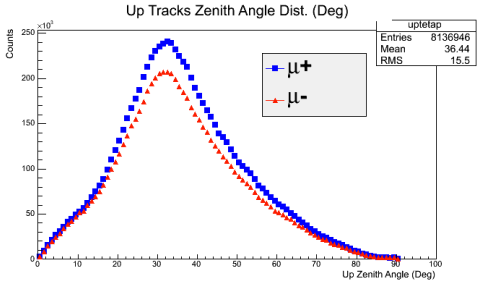


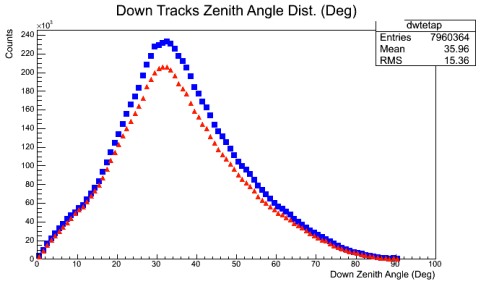
DATA ANALYSIS

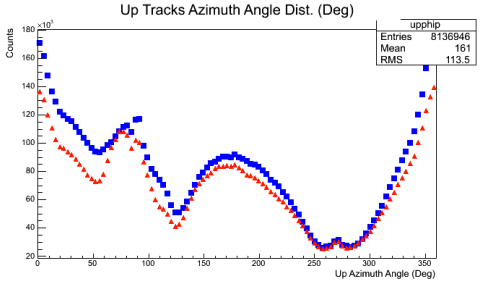


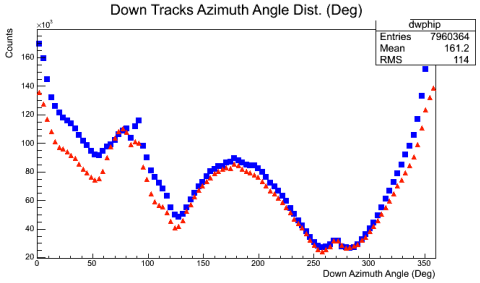


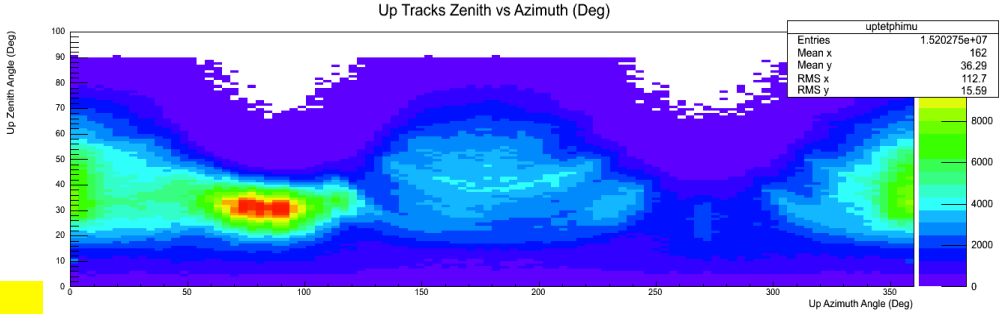
There's problem with the reco. Of p for all the periods

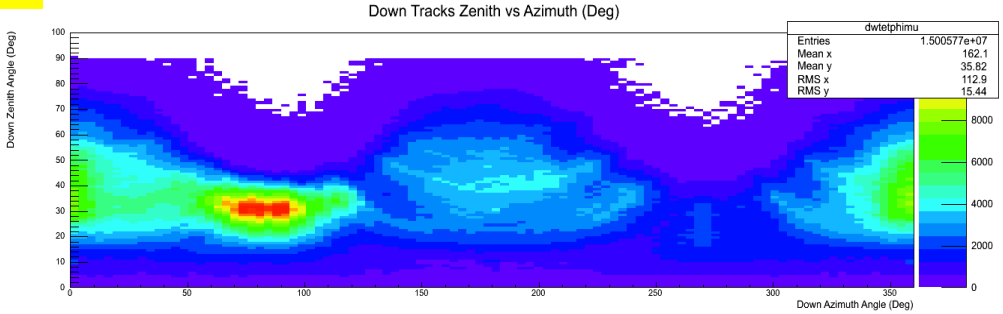










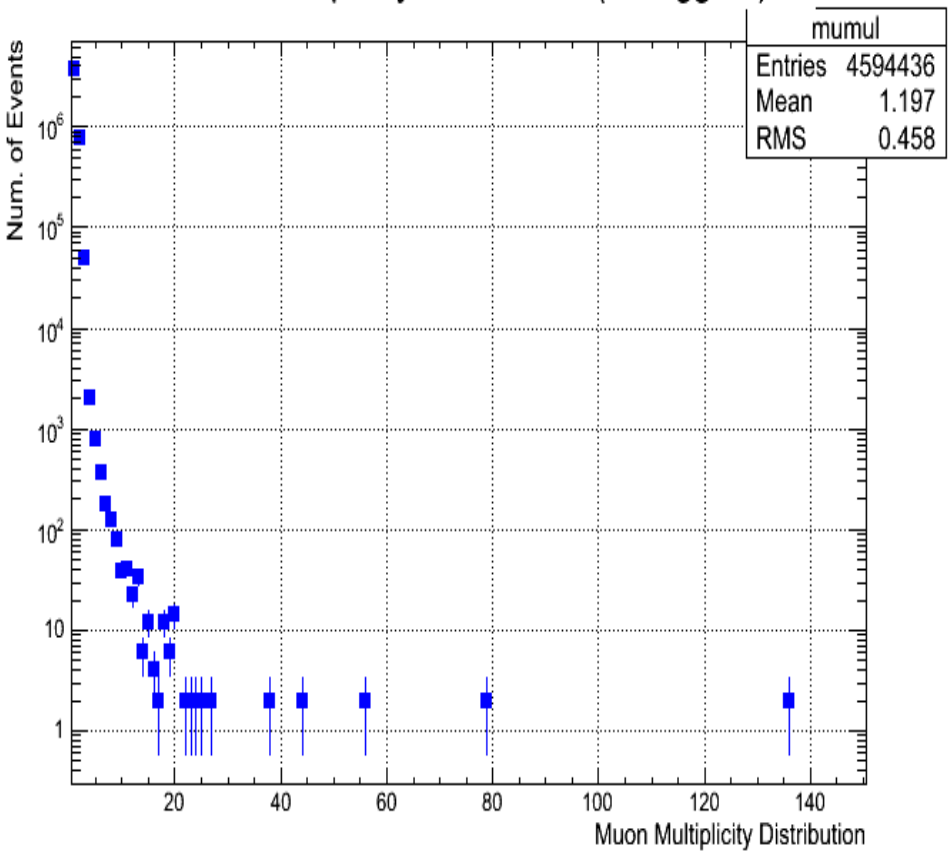


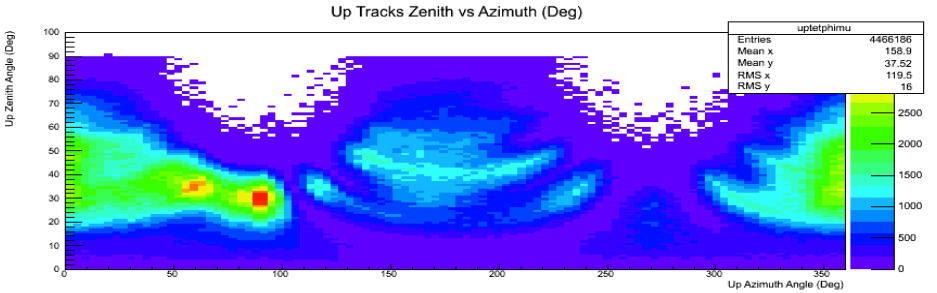
LHC12c

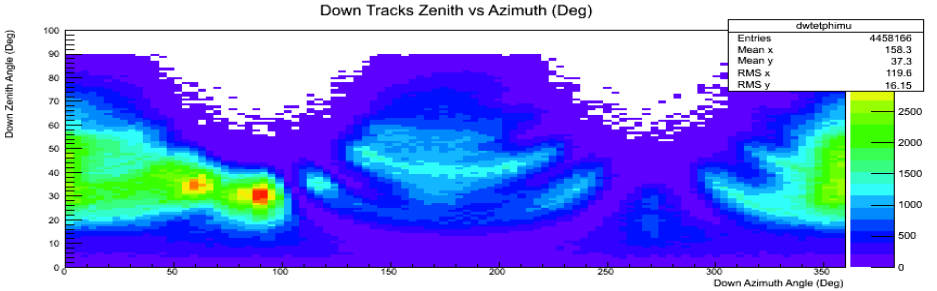
There are 19 runs analyzed for LHC12c period:

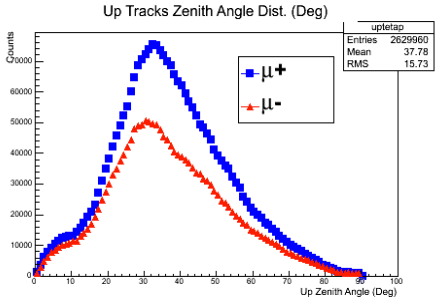
- (+,+) Field ON → 6112745 reconstructed events
- 4594436 analyzed events →75.16% of the full statistic available after the reconstruction.

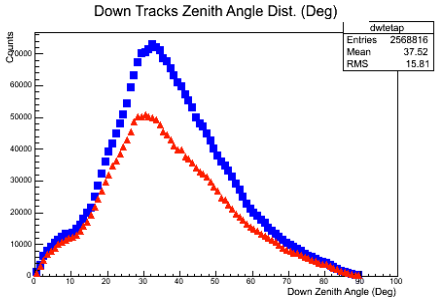
DATA ANALYSIS

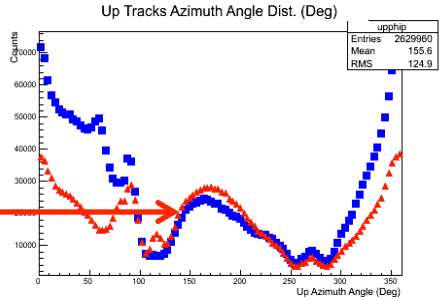


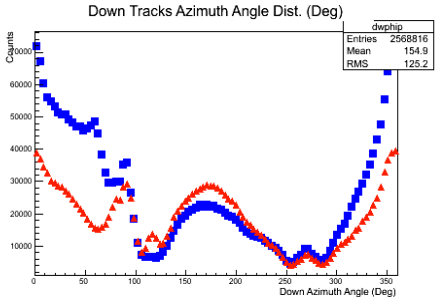






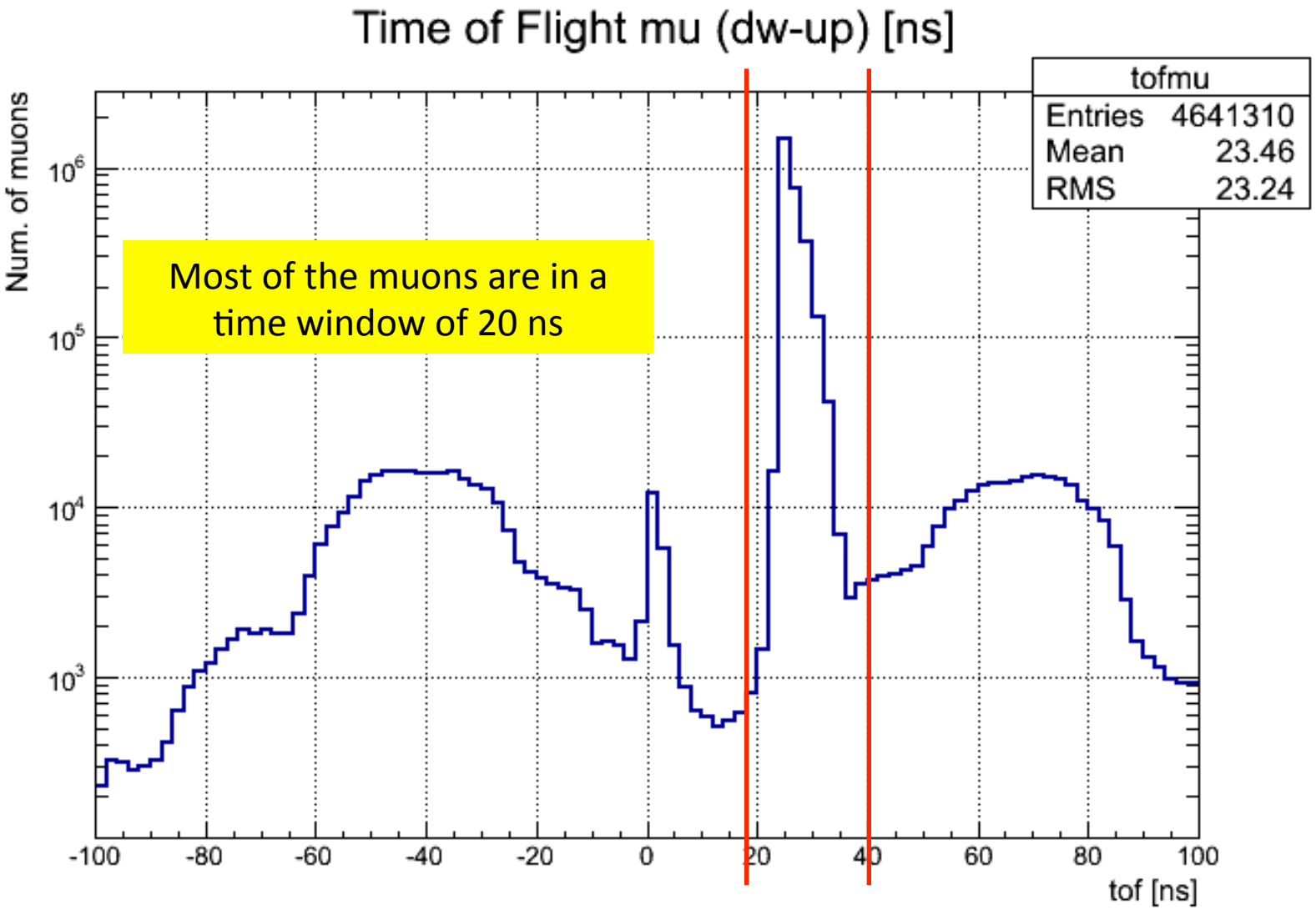


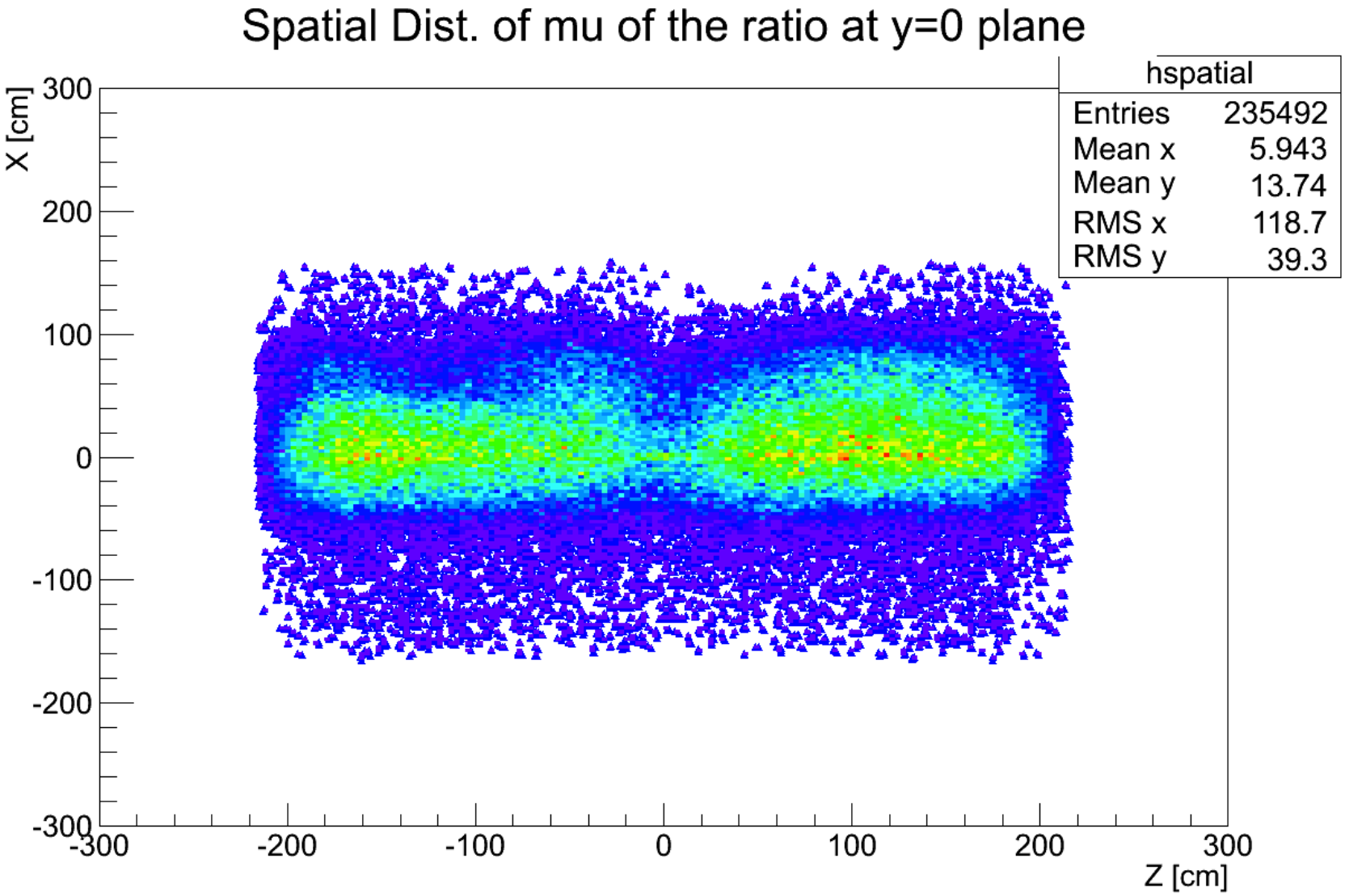




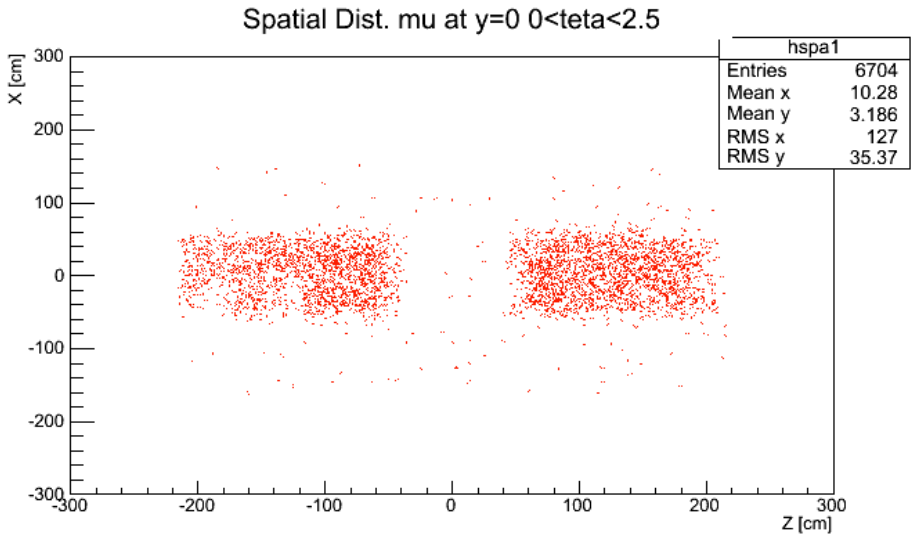
SOME PROBLEMS WITH THE AZIMUTH ANGLE at 150 degrees, any idea?

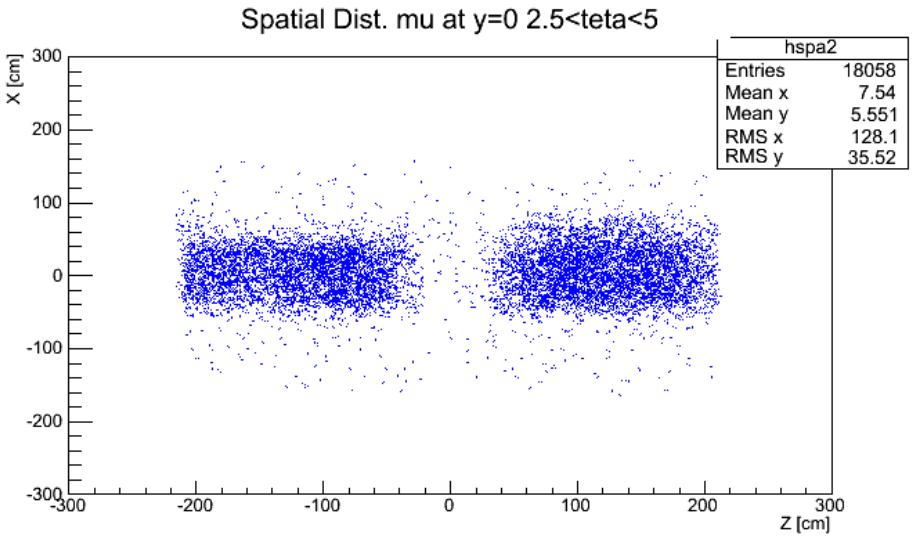
DATA ANALYSIS

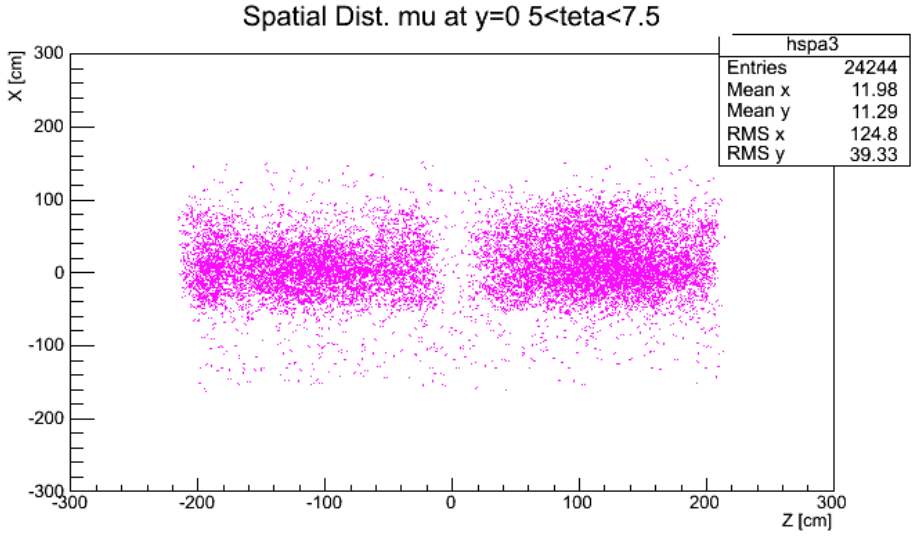


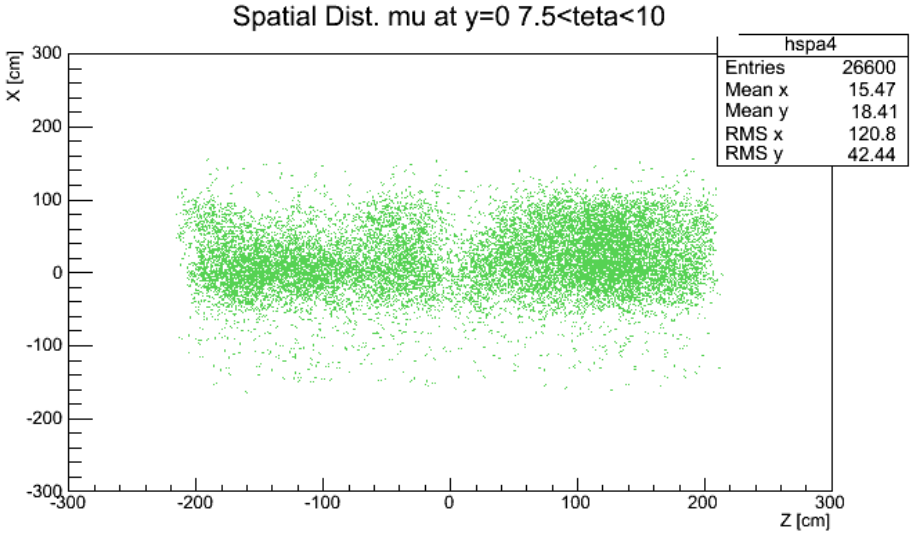

Spatial Dist. of mu of the ratio at y=0 plane
hspatial
Entries 235492
Mean x 5.943
Mean y 13.74
RMS x 118.7
RMS y 39.3
X [cm]
300
200
100
0
-100
-200
-300
-300
-200
-100
0
100
200
300
Z [cm]

DATA ANALYSIS

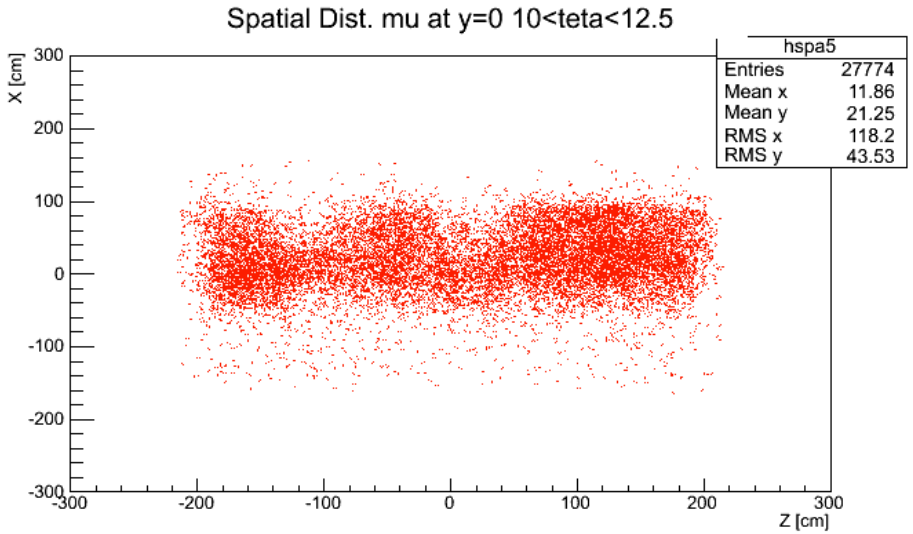


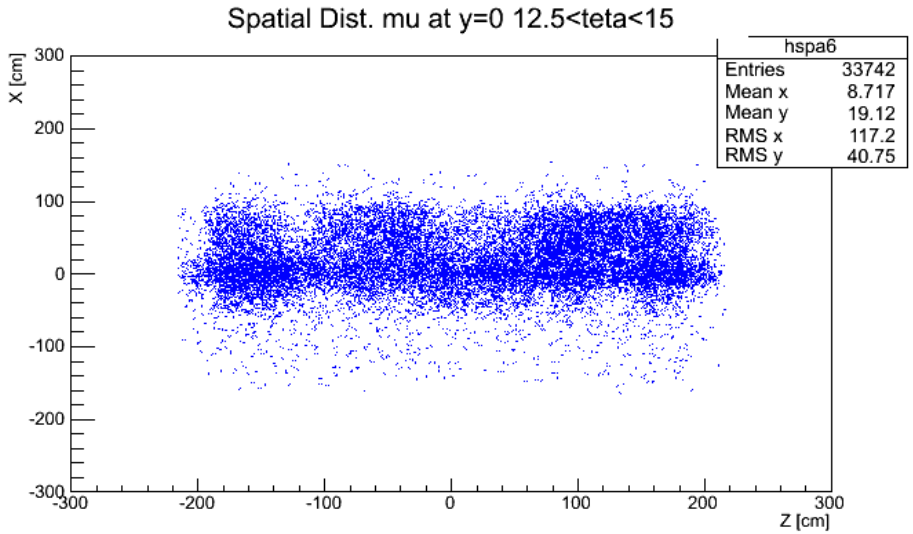


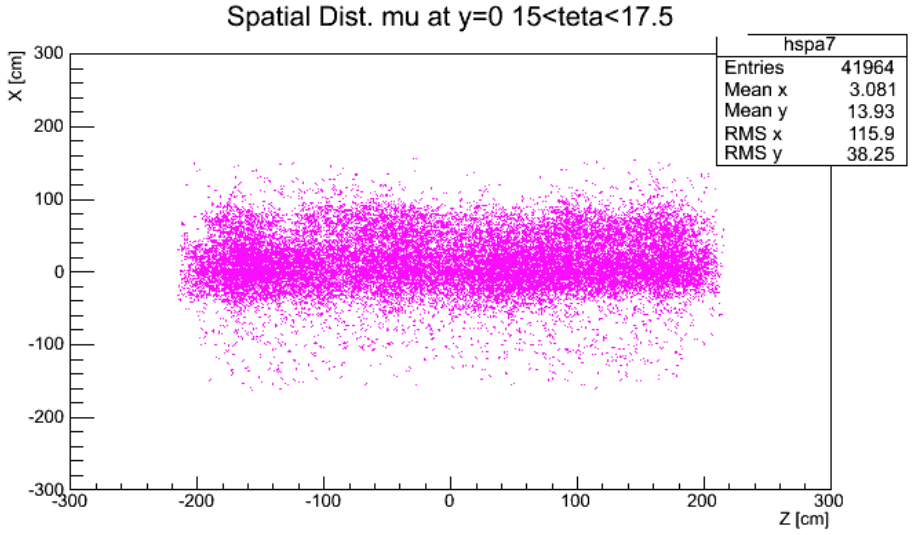


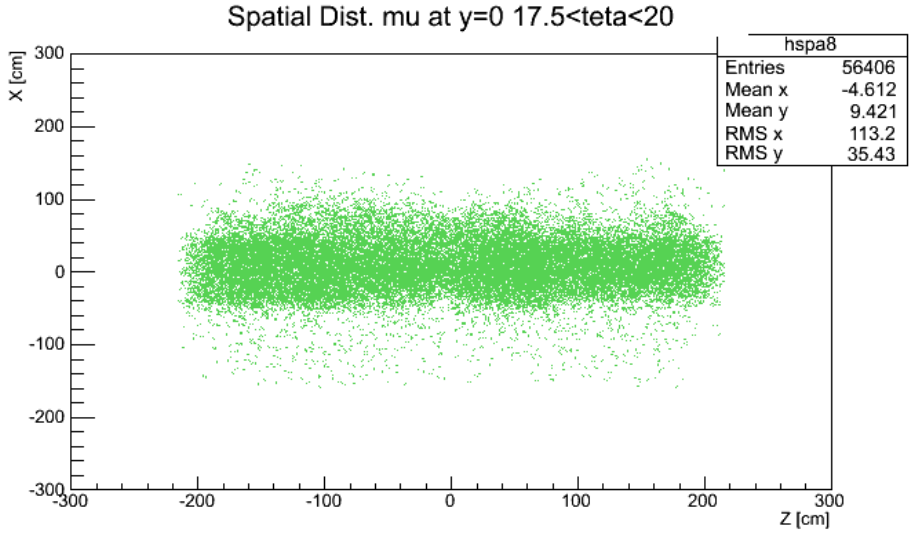


DATA ANALYSIS









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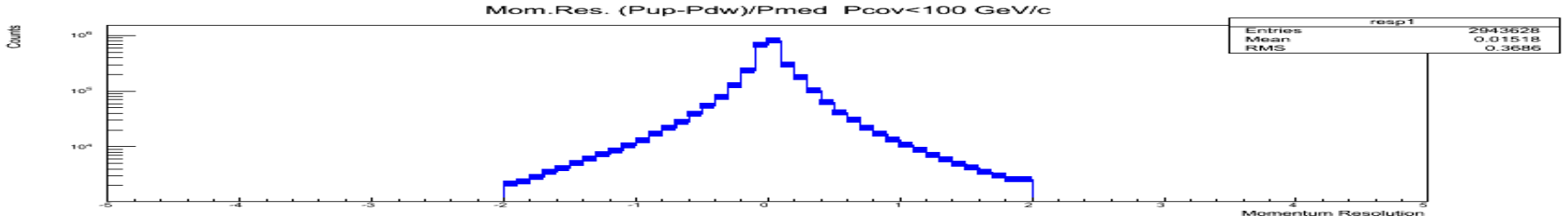

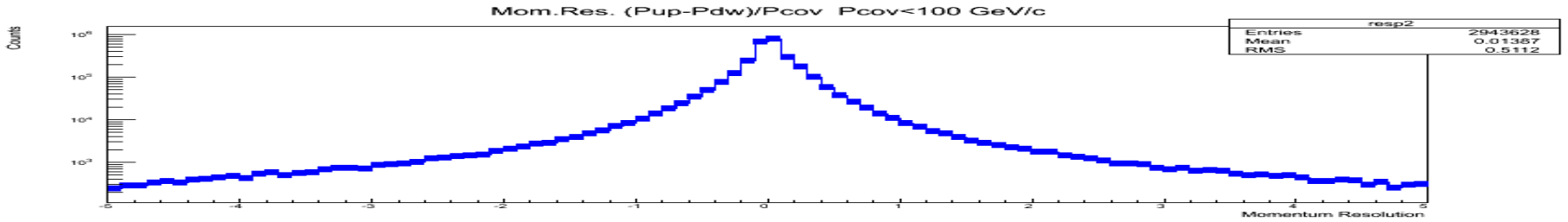

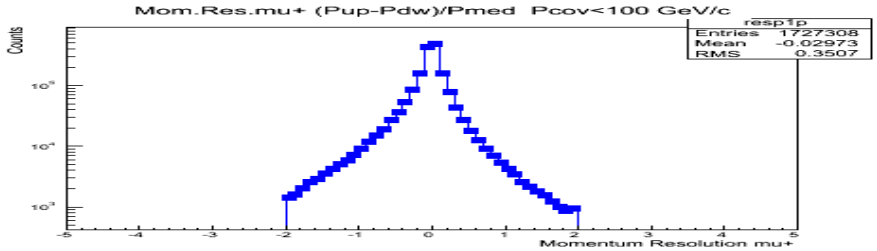

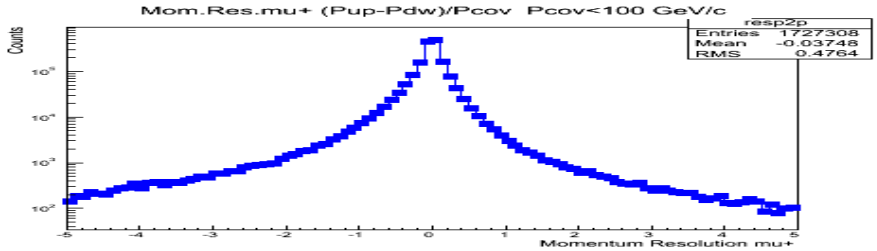

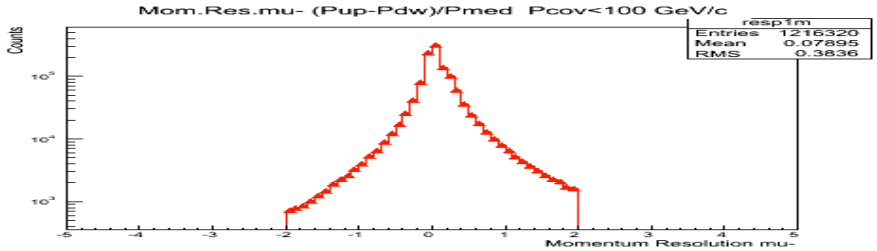

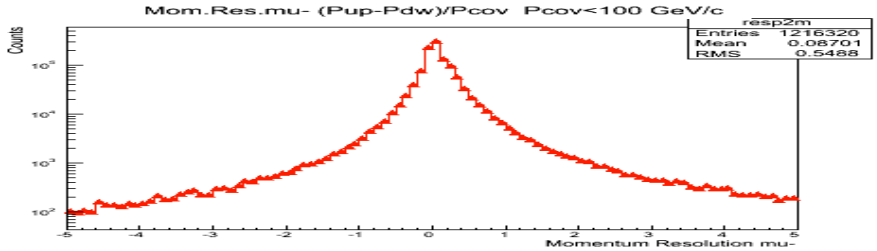

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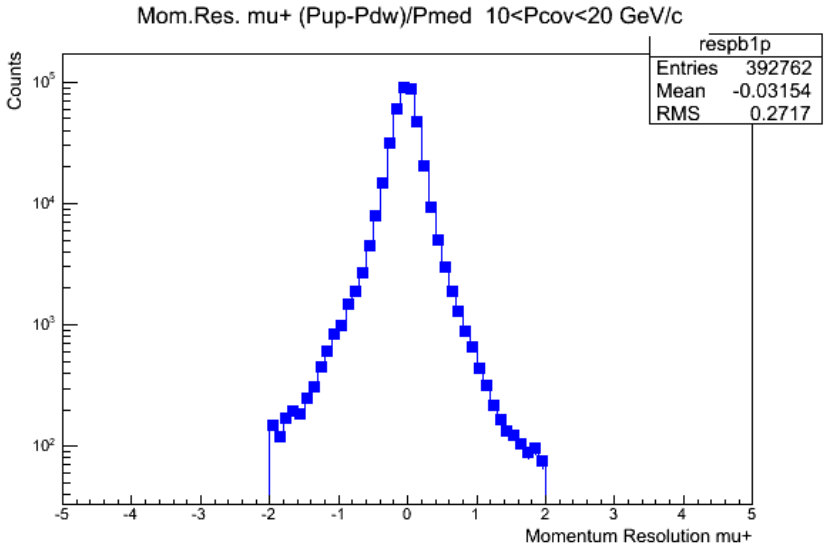
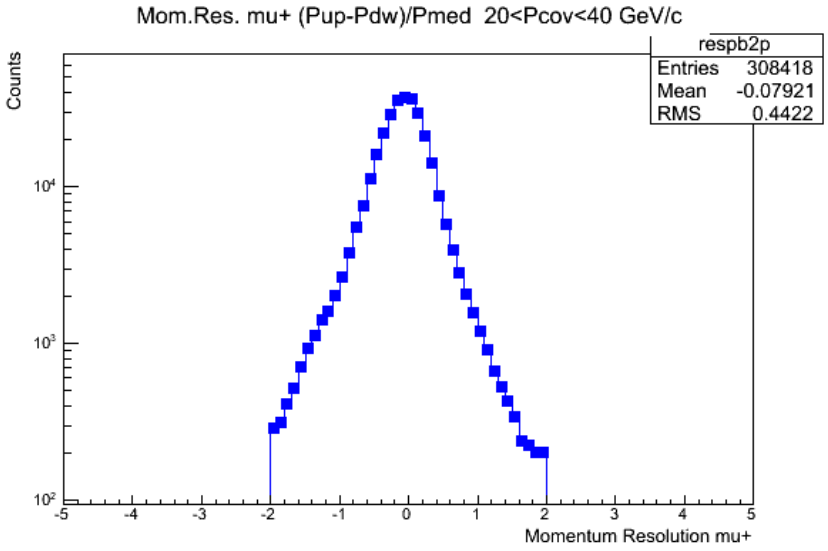
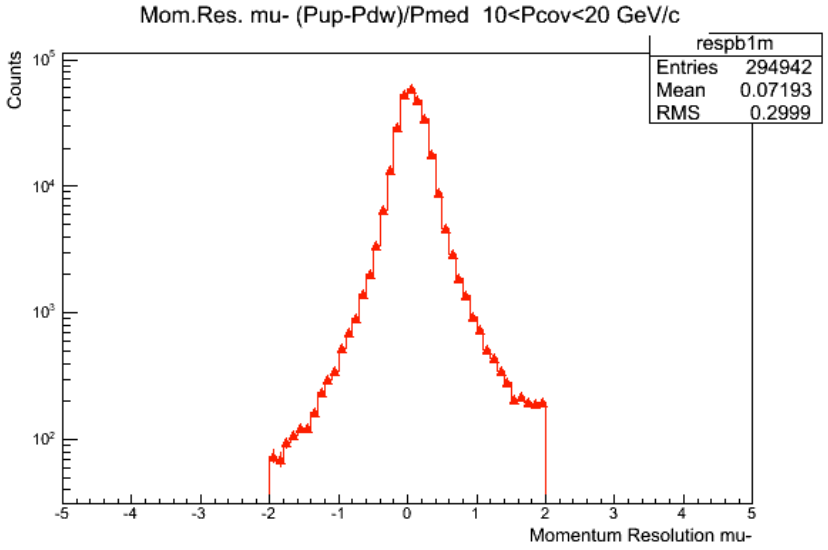
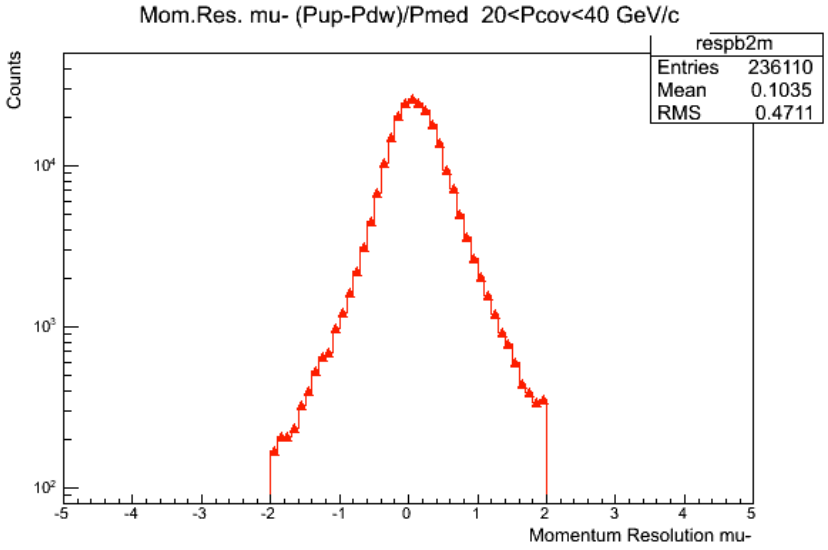
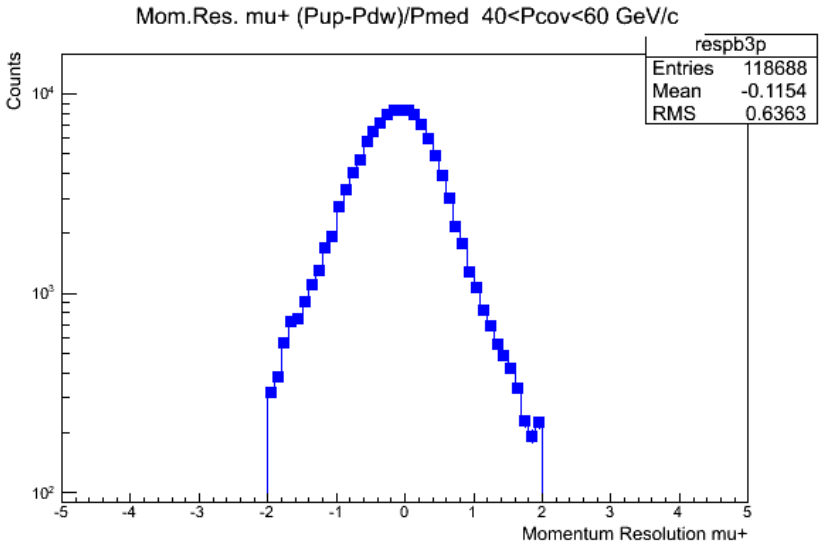


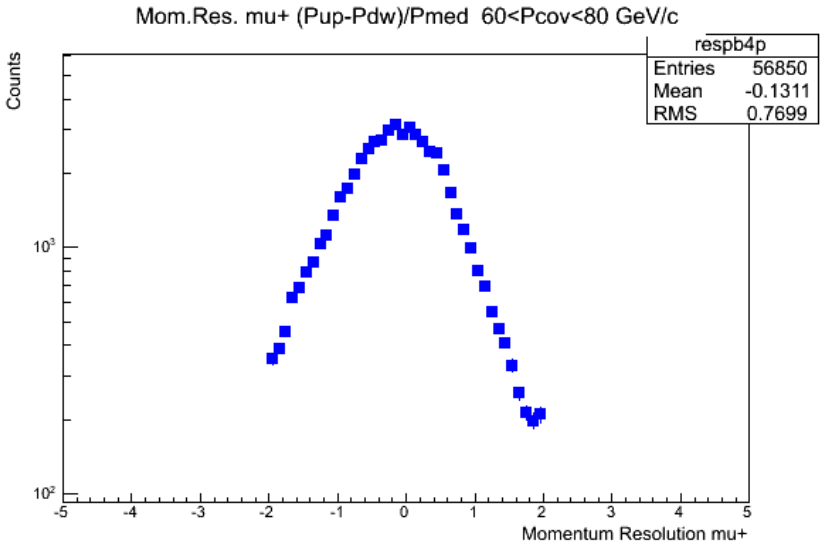


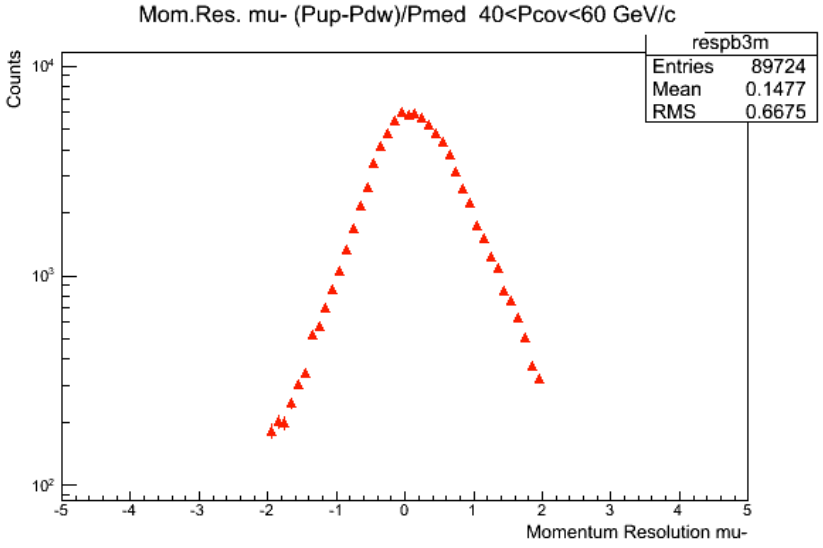


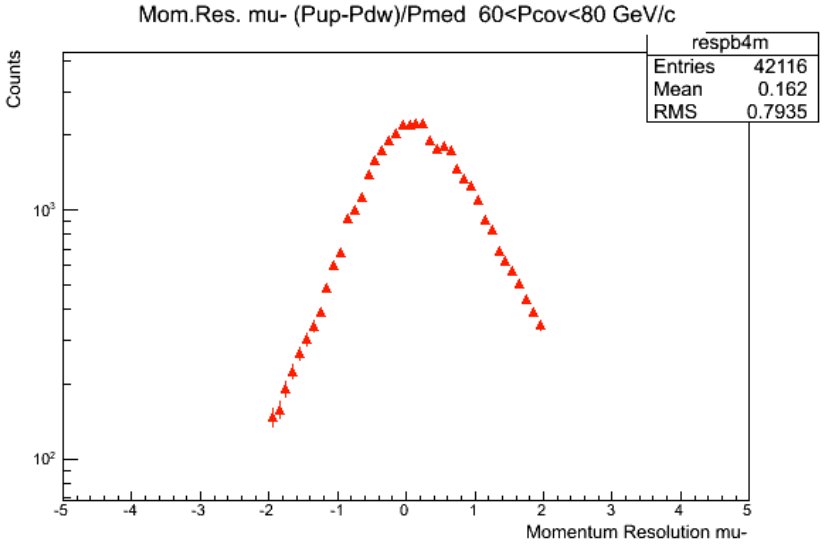


DATA ANALYSIS









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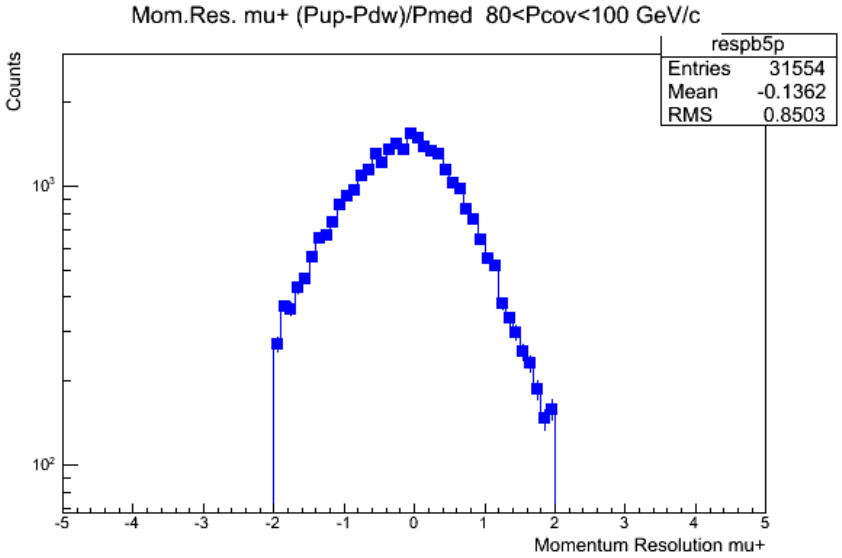
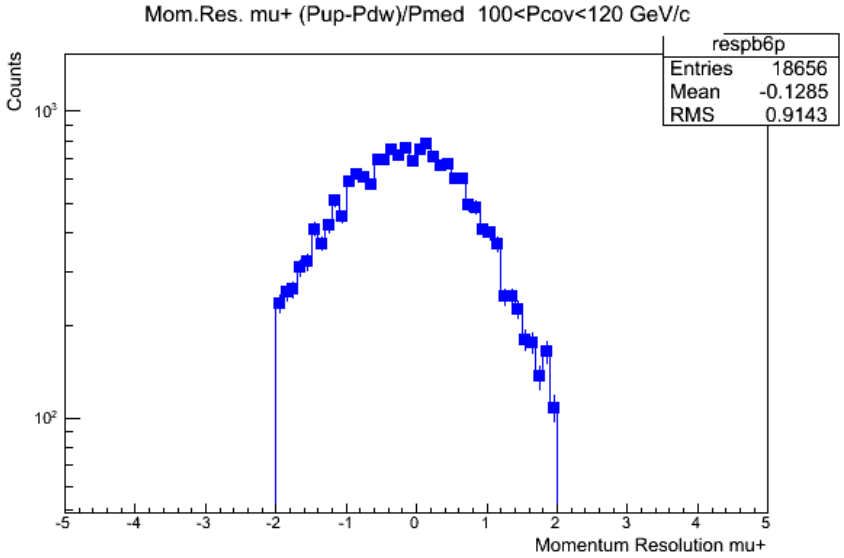
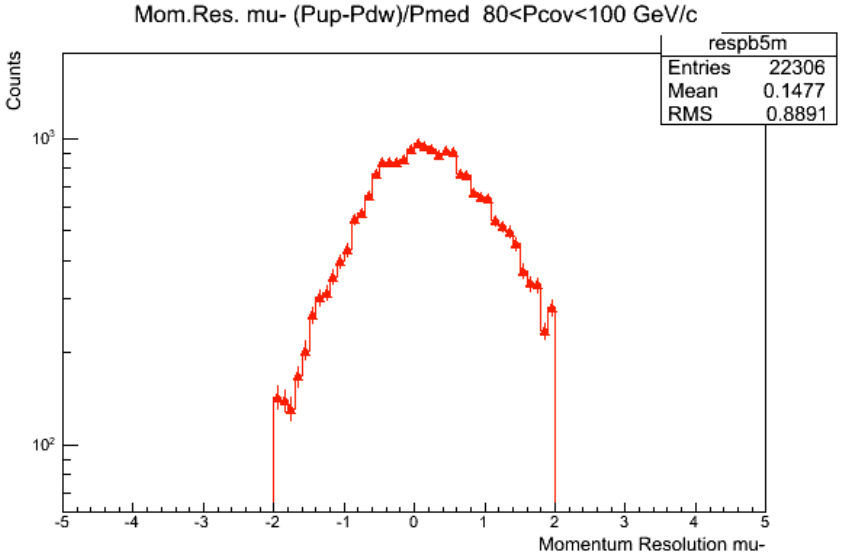
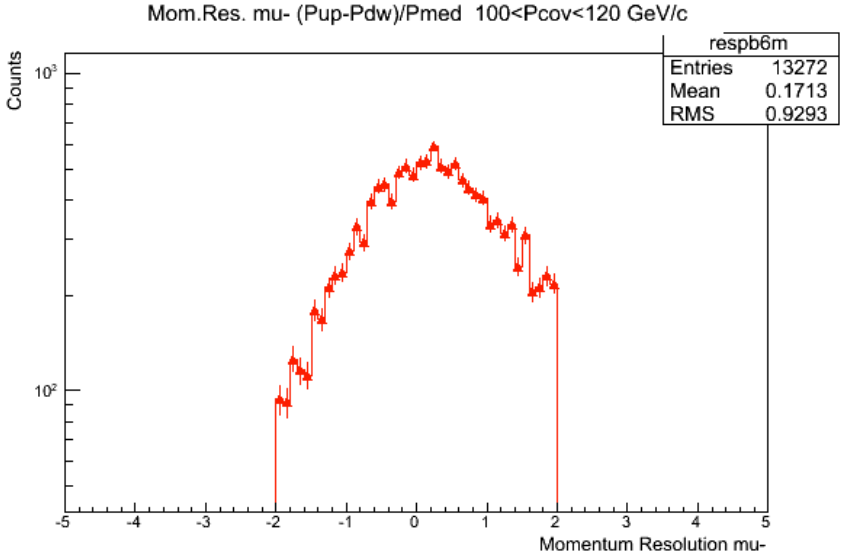
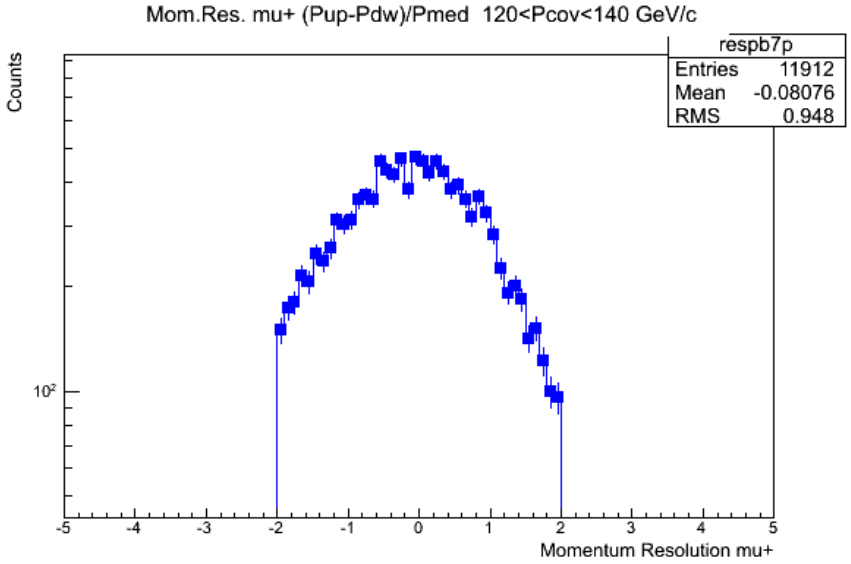


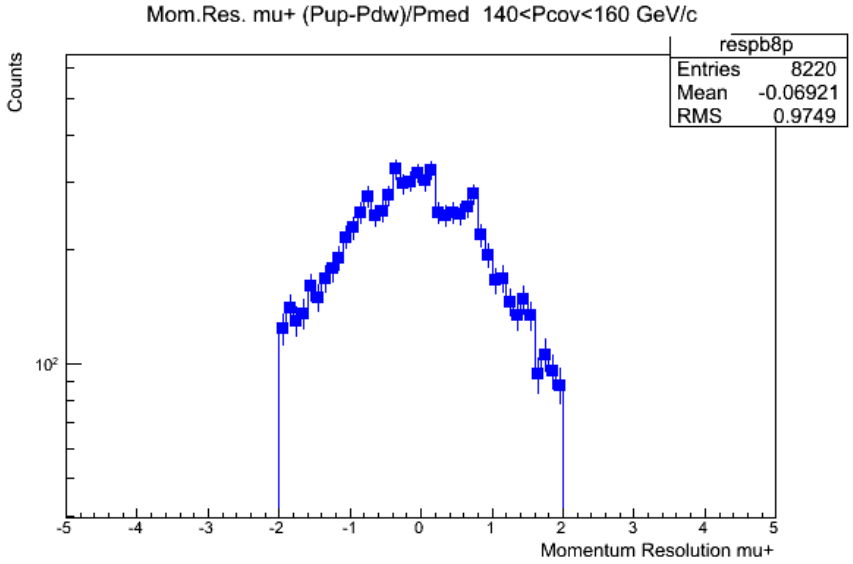


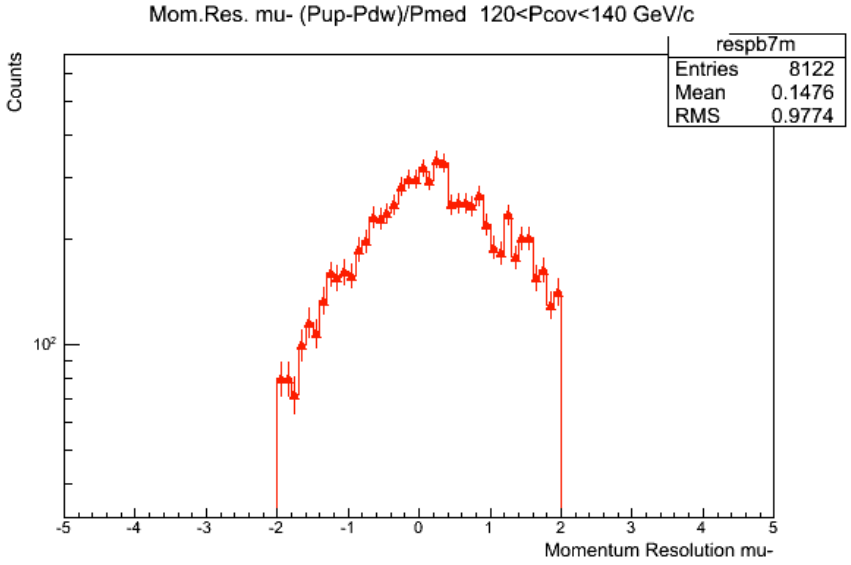


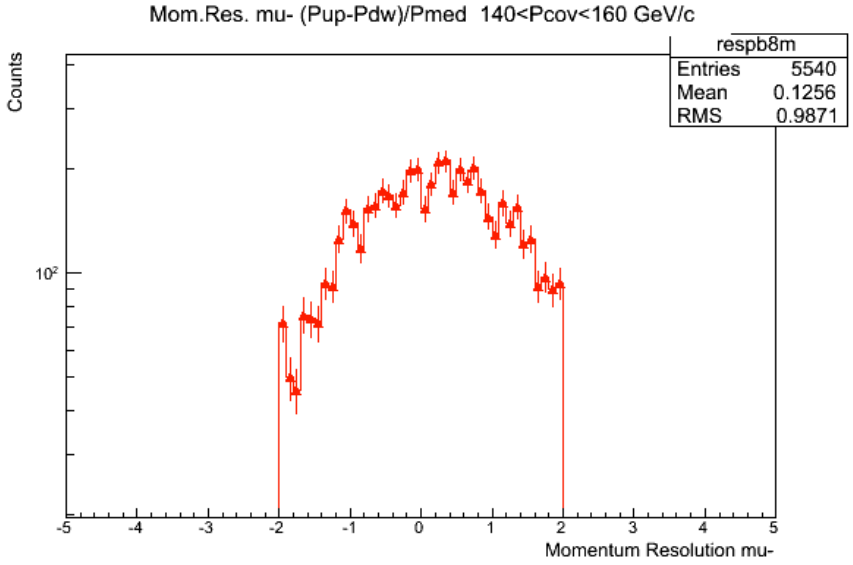


DATA ANALYSIS

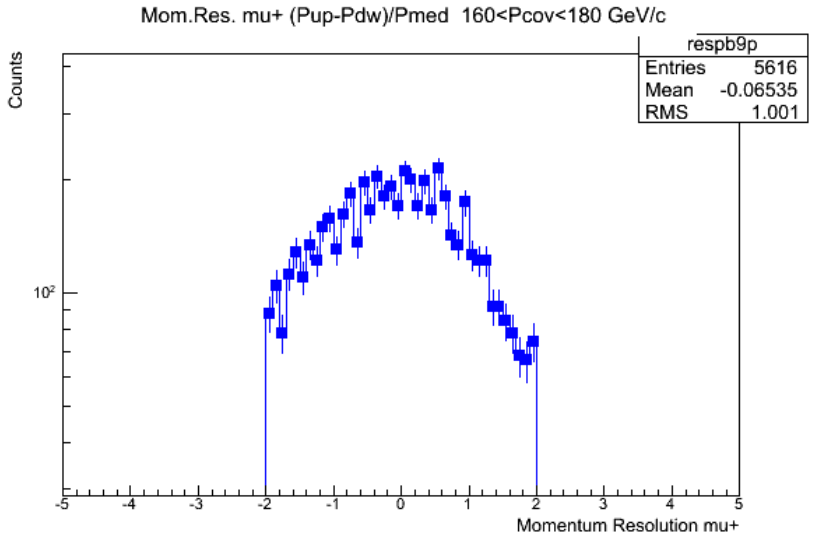


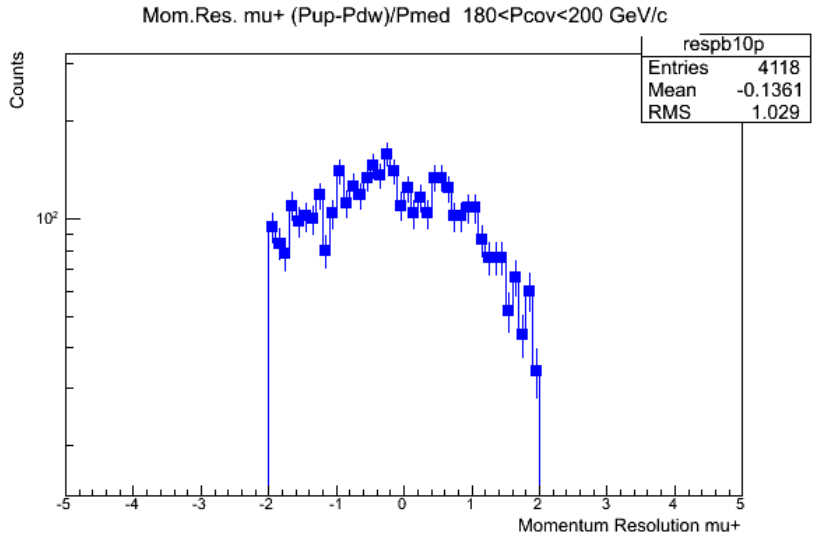


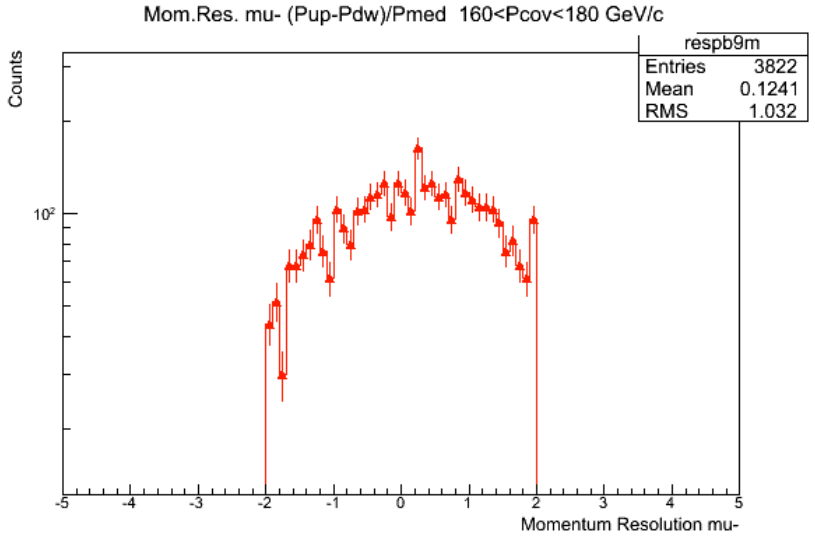


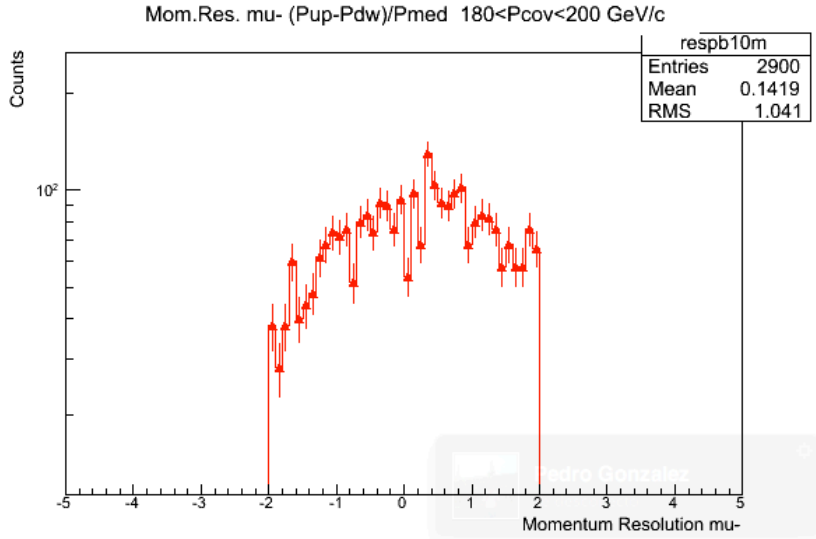


DATA ANALYSIS

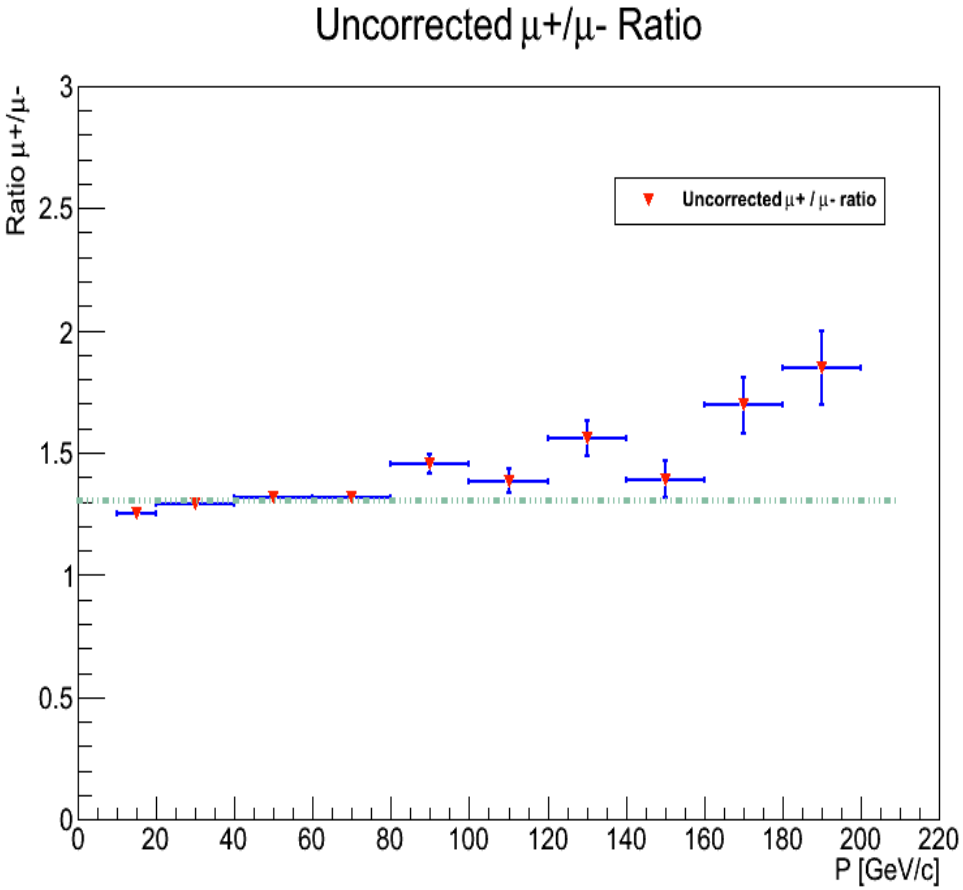


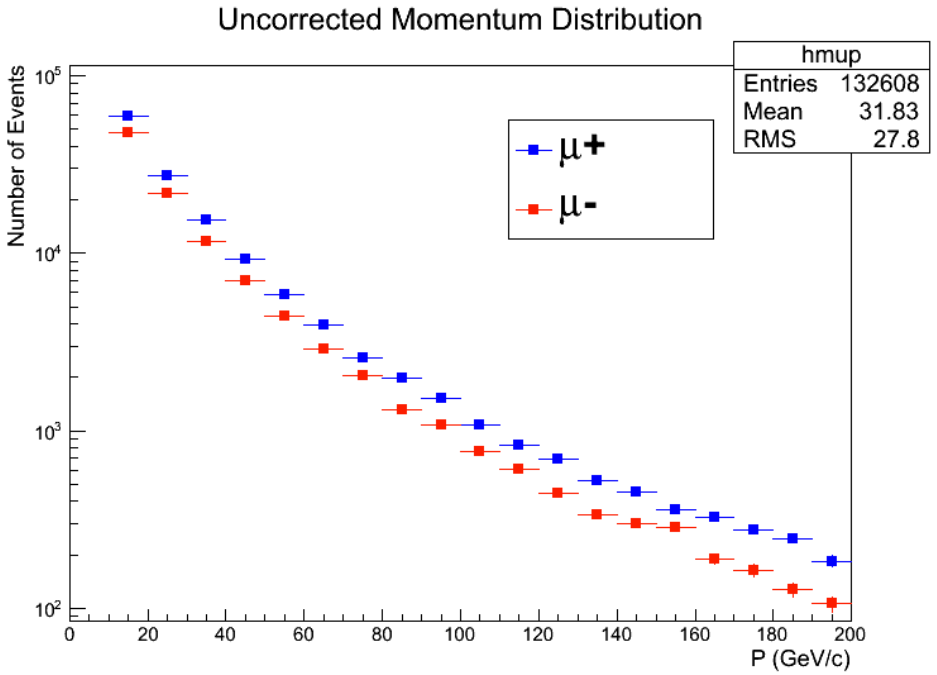






DATA ANALYSIS





GOOD MEASURE OF THE RATIO FOR P < 100 GeV/c

Coherent J/ψ photoproduction in ultra-peripheral Pb-Pb collisions at $\sqrt{s_{NN}}$=2.76 TeV

Daniel Tapia Takaki

ALICE

IPN Orsay – Université Paris-sud

Colleagues involved in this analysis

In the analysis: J. Adam, V. Canoa Roman, G. Contreras Nuño, E. Kryshen, M. Rodriguez Cahuantzi and D. Tapia Takaki

PC: J. Nystrand, P. Pillot, E. Scapparone, D. Tapia Takaki and O. Villalobos Baillie

IRC: G. Martínez, R. Schicker, J. Schukraft and E. Scomparin

UPCtf: A. Agostinelli, C. Cheshkov, D. De Gruttola, K. Skjerdal, C. Mayer, J.P. Revol and M. Zhalov

https://indico.cern.ch/getFile.py/access?contribId=34&sessionId=4&resId=0&materialId=slides&confId=197520

Luminosity determination

- Three methods were used: VNL, ZED and MB
- Very good agreement between all methods

Method	Luminosity (μb^{-1})
$\mathcal{L}_{VNL}$	55.9 $\pm^{3.9}_{2.2}$(sys)
$\mathcal{L}_{ZED}$	56.9 $\pm^{3.8}_{2.9}$(sys)

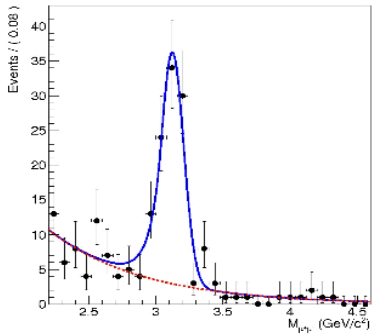
	Selection	Remaining events
1	MUP1 triggers	3 161 675
2	Two charged tracks	432,422
3	p×DCA cut	26,958
4	RPC muon chamber matching	10,712
5	-3.7< η <-2.5	5,100
6	17.5 < Rabs < 89.5 cm	5,095
7	-3.6 < y <-2.6	4,919
8	1 OS dimuon	3,209
9	Neutron ZDC < 6 TeV	817
10	2.8<M<3.4 GeV/c^2	205
11	p_t <0.3 GeV/c	122
12	VZERO timing	116

Systematic uncertainties

Table 1: Summary of the contributions to the systematic uncertainty associated to the integrated J/ψ cross section measurement.

Source	Value
Theoretical uncertainty in $\sigma_{\gamma\gamma}$	20%
Signal extraction	8%
Reconstruction efficiency	6%
Trigger efficiency	5%
Acceptance calculation	2%
e^+e^- pile-up	2%
Branching ratio	1%
Total	23%

Dimuon invariant mass

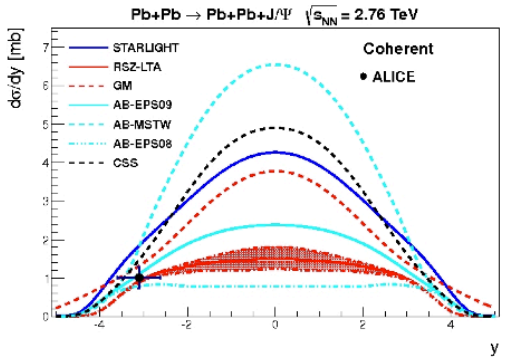


For ALICE preliminary plot

Putting all together

The cross section for coherent J/ψ production in the rapidity interval -3.6 $< y <$ -2.6 is measured to be $d\sigma_{J/\psi}/dy = (1010 \pm 160\ (\text{stat}) \pm 230\ (\text{syst}))\ \mu\text{b}$.

Data versus predictions

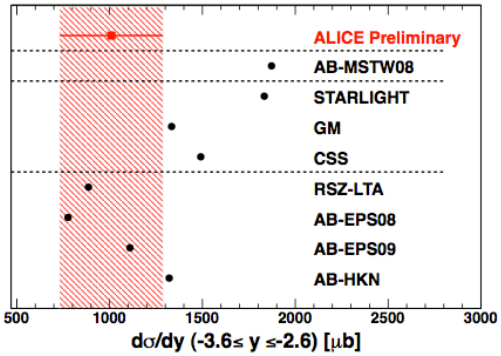


For ALICE preliminary plot

Summary

- We have measured coherent differential cross section of J/ψ photoproduction in ultra-peripheral Pb-Pb collisions at $\sqrt{s_{\text{NN}}} = 2.76$ TeV.
- Our result is $d\sigma/dy = (1010 \pm 160(\text{stat}) \pm 230(\text{syst}))\ \mu\text{b}$
- Although the present statistical and systematical uncertainties do not allow exclusion of any model, the ALICE data show a better agreement with models which include nuclear shadowing.

Data versus predictions



For ALICE preliminary plot

TESIS

PRIMERA VERSIÓN DE LA TESIS ENVIADA EL MIÉRCOLES 27 DE JUNIO PARA LA REVISIÓN:

Coloquio: 10 o 13 de Agosto
Examen: 17 o 20 de Agosto (sino es antes de la escuela de rayos cósmicos entonces será hasta el 3 de septiembre)
http://www.fiumsa.edu.bo/5scra2012/index.html

Propuesta de Jurado:

Humberto Salazar (FCFM-BUAP)
Oscar Martínez (FCFM-BUAP)
Mario Iván Martínez (FCFM-BUAP)
Bruno Alessandro (INFN-Torino,Italia)
Pedro Podesta (FCFM-UAS) ¿?
Gerardo Herrera (CINVESTAV) ¿?
G. Medina Tanco (ICN-UNAM) ¿?
Alexis Aguilar (ICN-UNAM) ¿?
Eleazar Cuautle (ICN-UNAM)
Arturo Fernández (FCFM-BUAP)

PRIMERA REVISIÓN PASADO MIÉRCOLES 4 DE JULIO
→ resumen modificado y ya enviado (ayer)
→ Conclusiones (en progreso, a enviar durante fin de semana)
→ actualización de capítulos 1,2, 3 y 4 en progreso
→ Versión 2 a enviar próximo lunes o martes

Notas finales

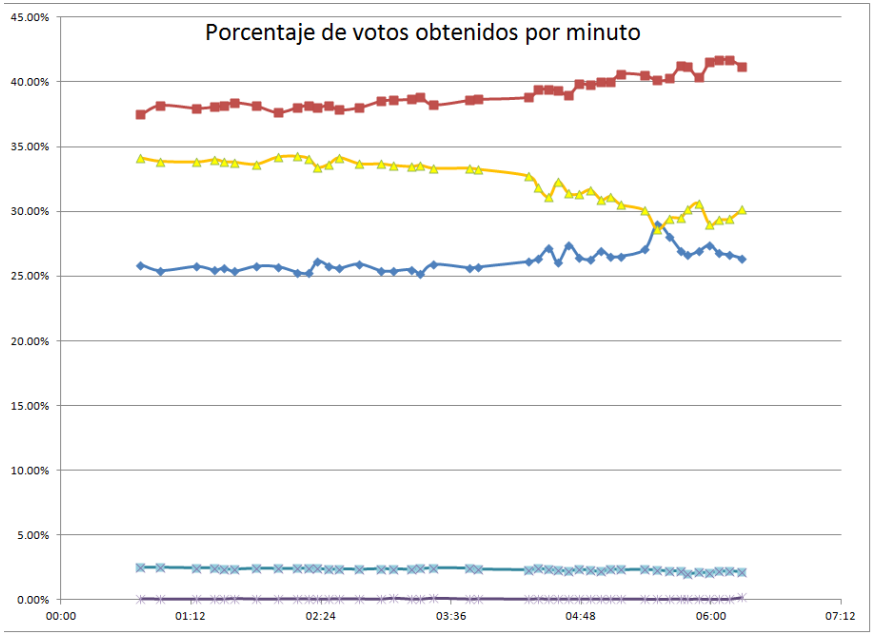
- Se debe hacer una producción de MC con Corsika para los datos de 2012.
- Se debe estimar la eficiencia y aceptancia de ACORDE.
- Analizar con la nueva estadística al periodo LHC12c
- A la espera de correcciones para la segunda versión de la tesis
- Lanzar análisis para la muestra de protón-protón en UPC

EXTRA

ALGUNAS GRÁFICAS REFERENTES AL PREP-IFE ELECCIÓN PRESIDENCIAL MÉXICO 2012

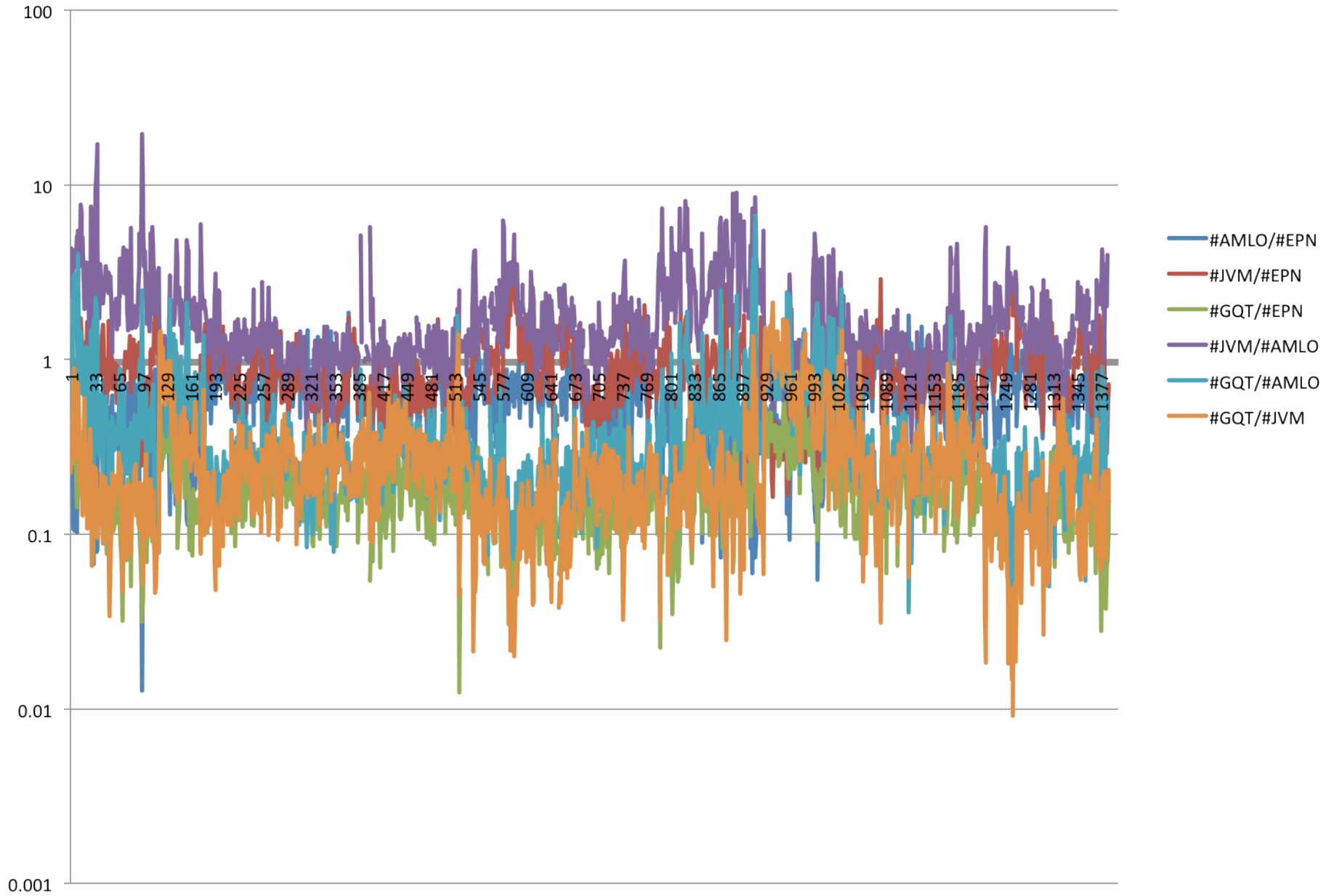
ALGUNOS COMENTARIOS

SI BIEN EL PREP NO ES EL CONTEO OFICIAL, SE HA UTILIZADO MEDIÁTICAMENTE PARA IMPONER AL CANDIDATO DEL PRI.
MUCHAS PERSONAS HAN DEDICADO PARTE DE SU TIEMPO A VERIFICAR LOS DATOS PUBLICADOS POR EL PREP (http://prep.unotv.com/prep/NACIONAL/PresidenteNacionalVPC.html) Y EXISTEN RESULTADOS COMO LOS PUBLICADOS EN http://www.colloqui.org/ Y LA IMAGEN DE GRÁFICA ESPEJO PUBLICADA EN VARIOS MEDIOS COMO http://www.el5antuario.org/2012/07/reportan-grafica-espejo-entre-jvm-y.html

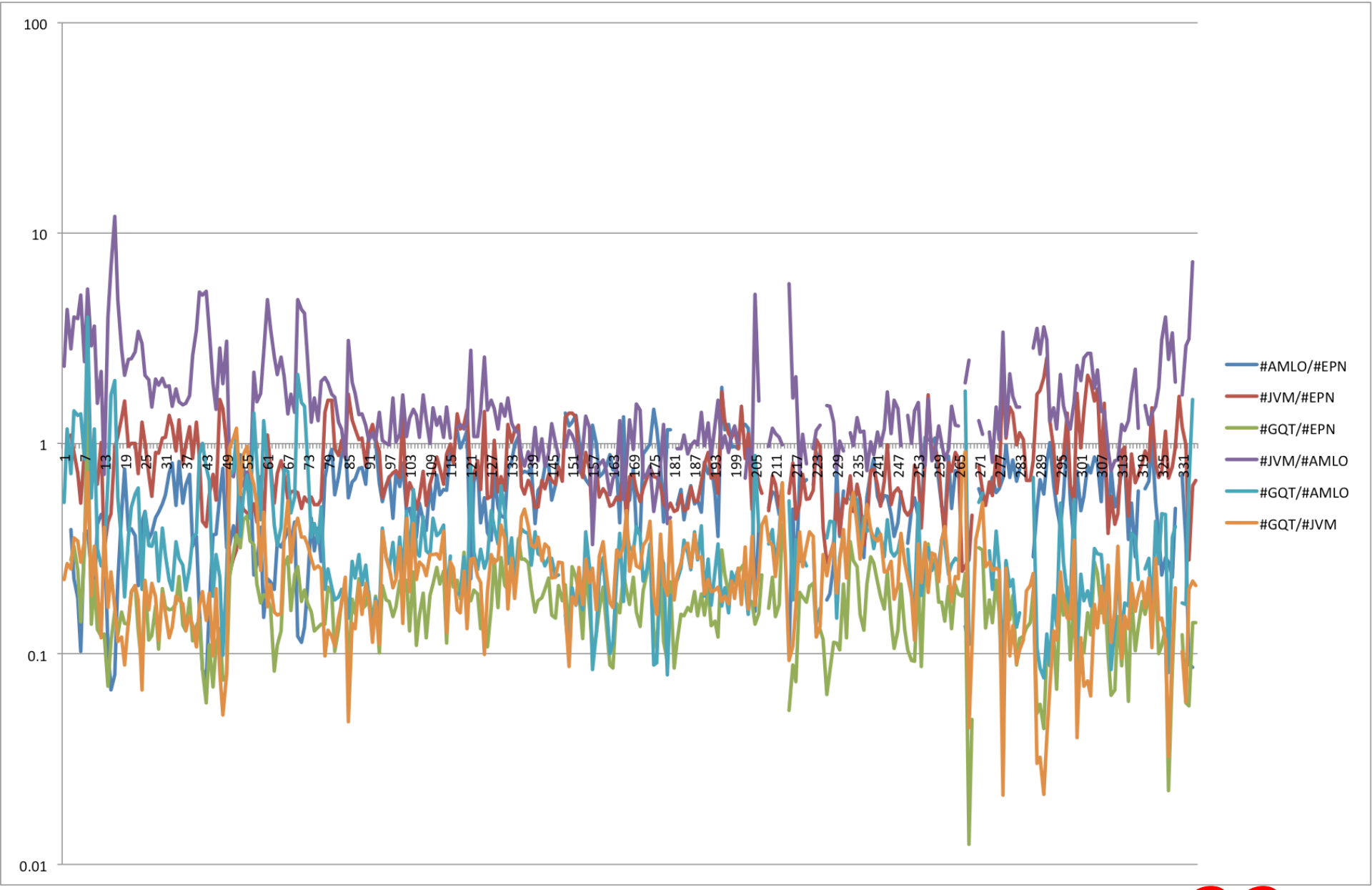


SI EL PREP ESTÁ MANIPULADO:¿EL IFE PUBLICARÍA LOS DATOS CRUDOS AL ACCESO DE EXPERTOS QUE PODRÍAN DARSE CUENTA DE DICHA MANIPULACIÓN? O ESTÁ SEGURO QUE NADIE DE LOS EXPERTOS (MUCHOS INTELECTUALES, FÍSICOS Y MATEMÁTICOS SE DICEN DE IZQUIERDA Y APOYAN ABIERTAMENTE A AMLO) REVISARÁ CON CUIDADO ESOS DATOS. O ¿DÓNDE ESTÁN ESOS INTELECTUALES QUE SE QUEJAN EN PLÁTICAS DE CAFÉ Y AHORA QUE ES NECESARIO USAR LAS HERRAMIENTAS DE LA RAZÓN NO SE VE ACTIVIDAD ALGUNA Y DEJAN SOLOS A LOS JÓVENES?

TODAS LAS CASILLAS ELECTORALES



CASILLAS A REVISAR



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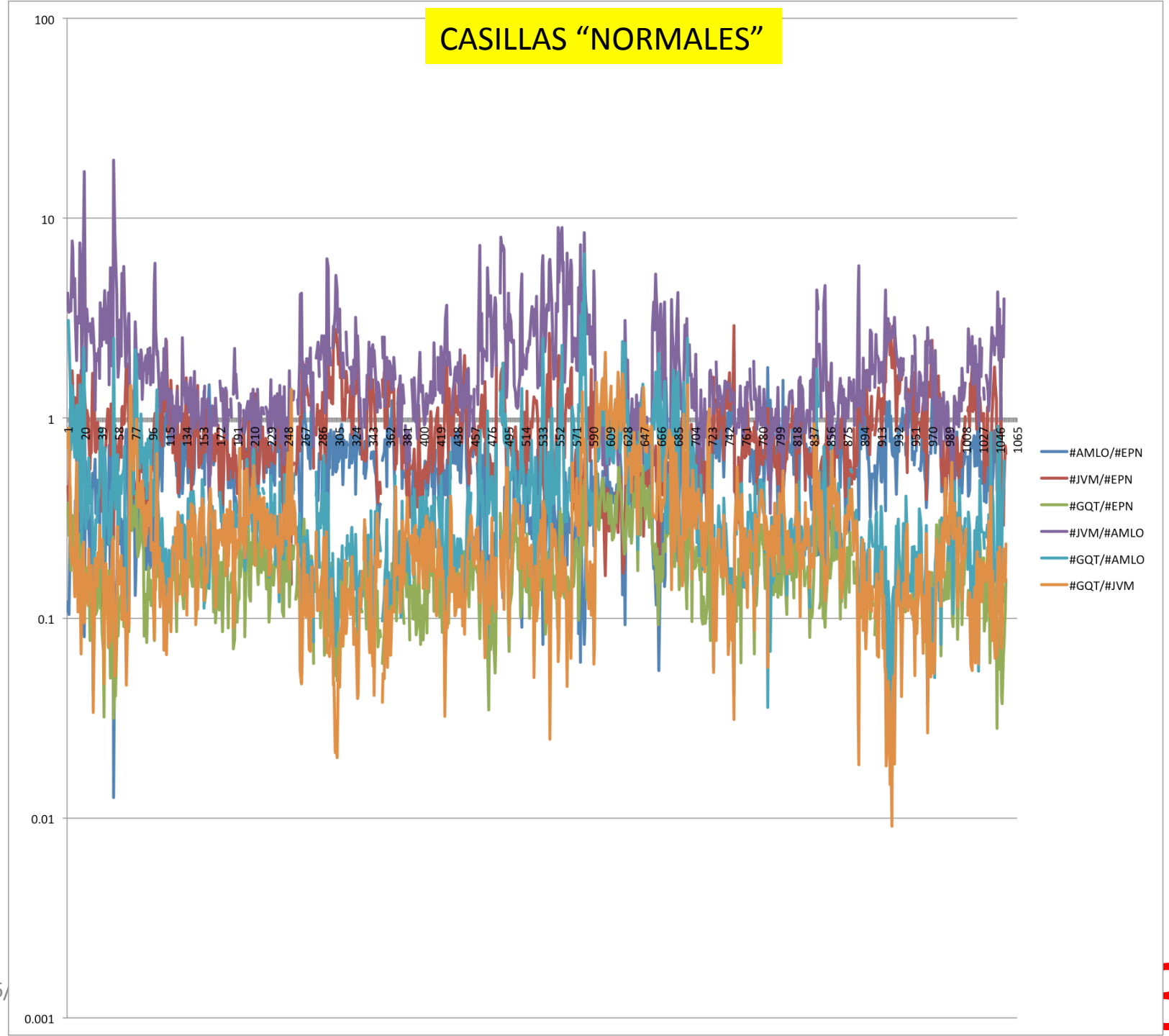

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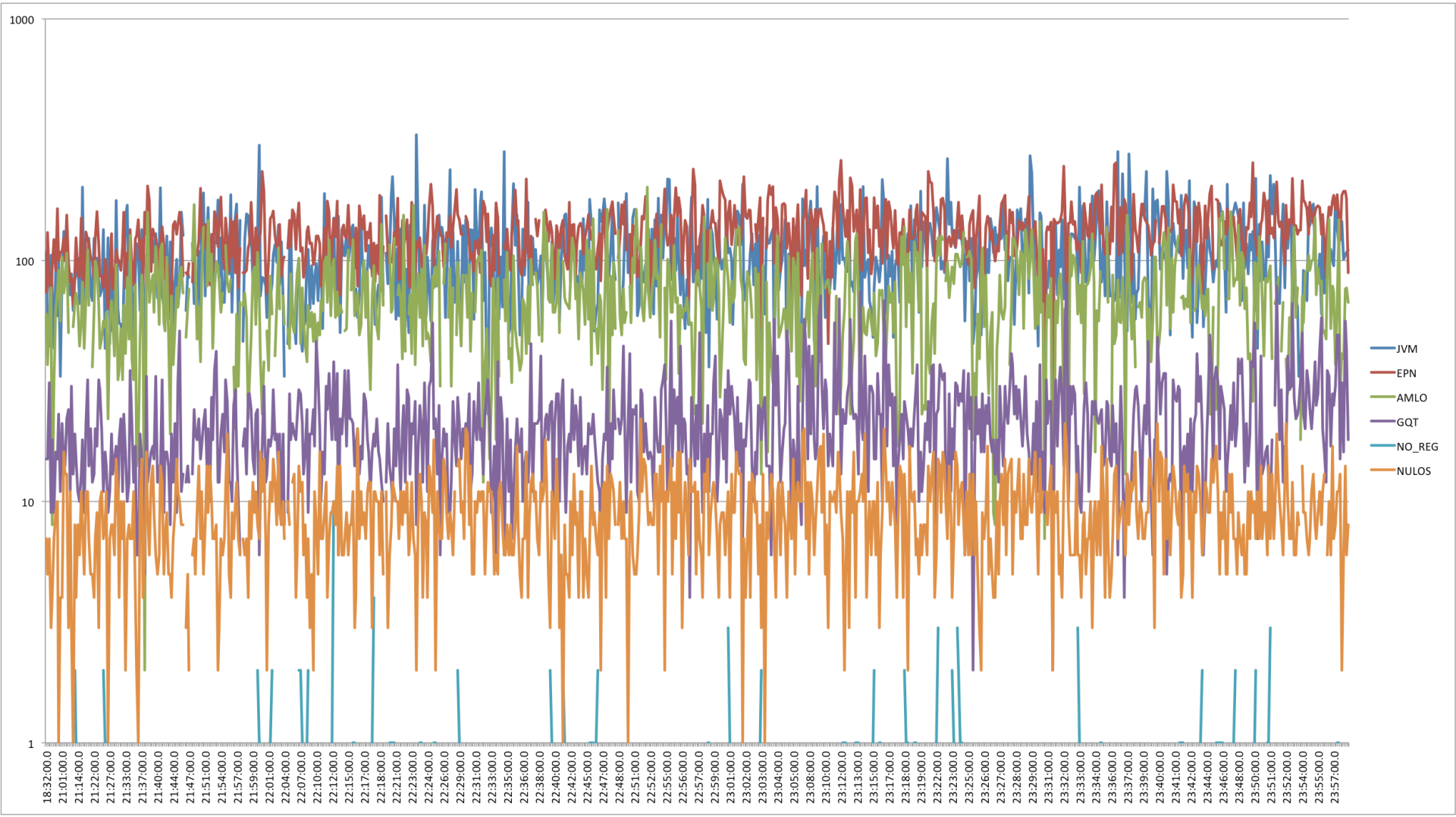

1/julio/2012

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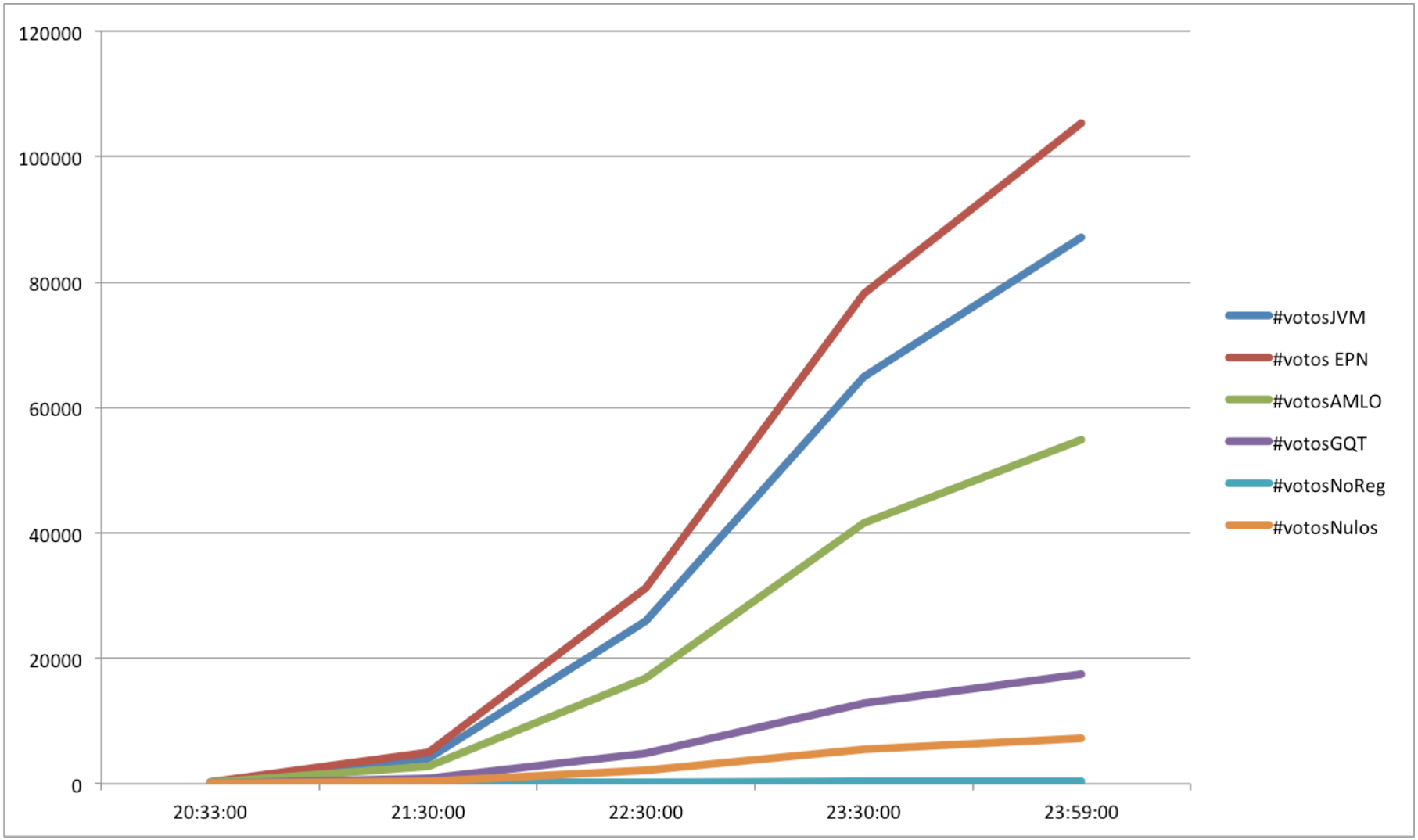

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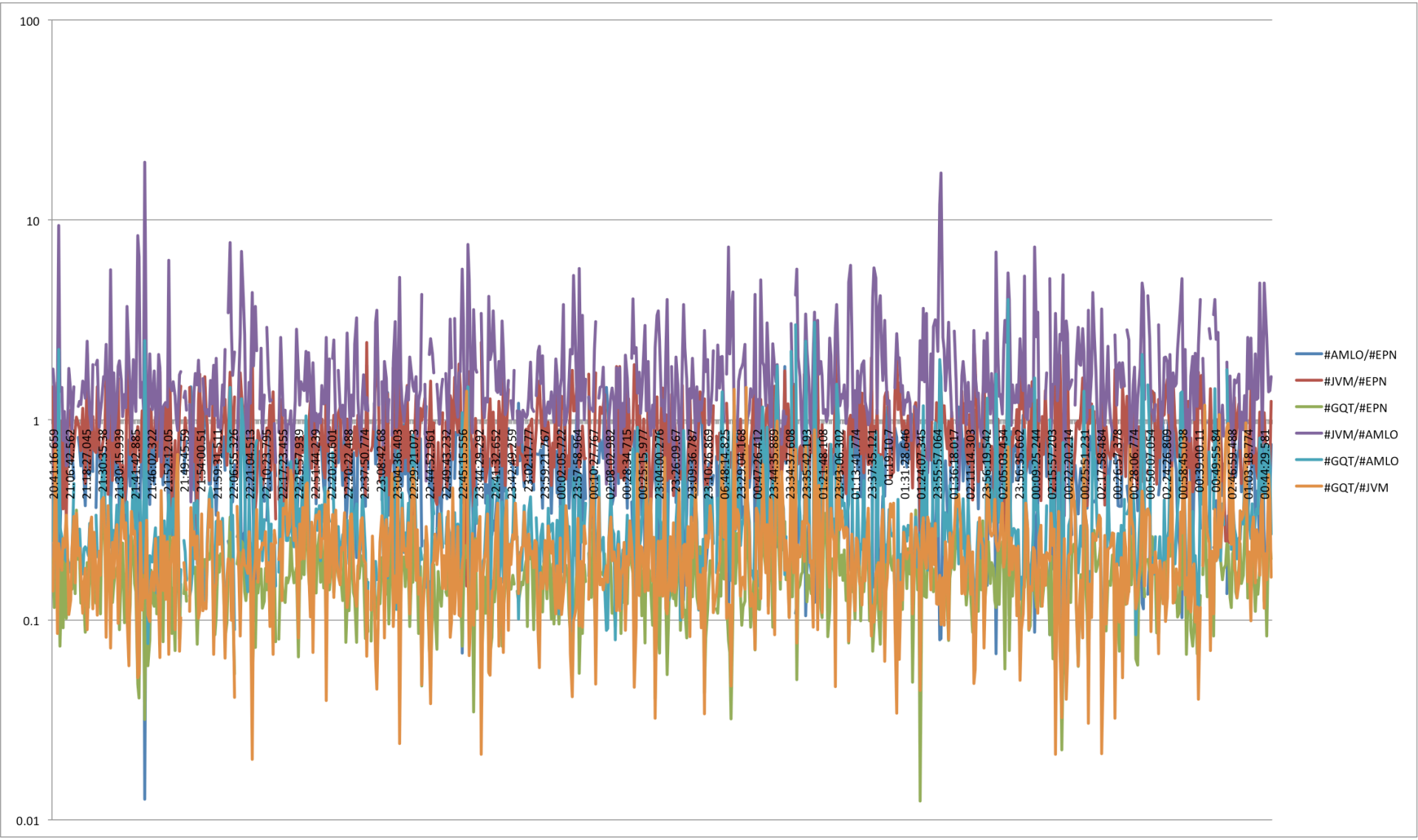
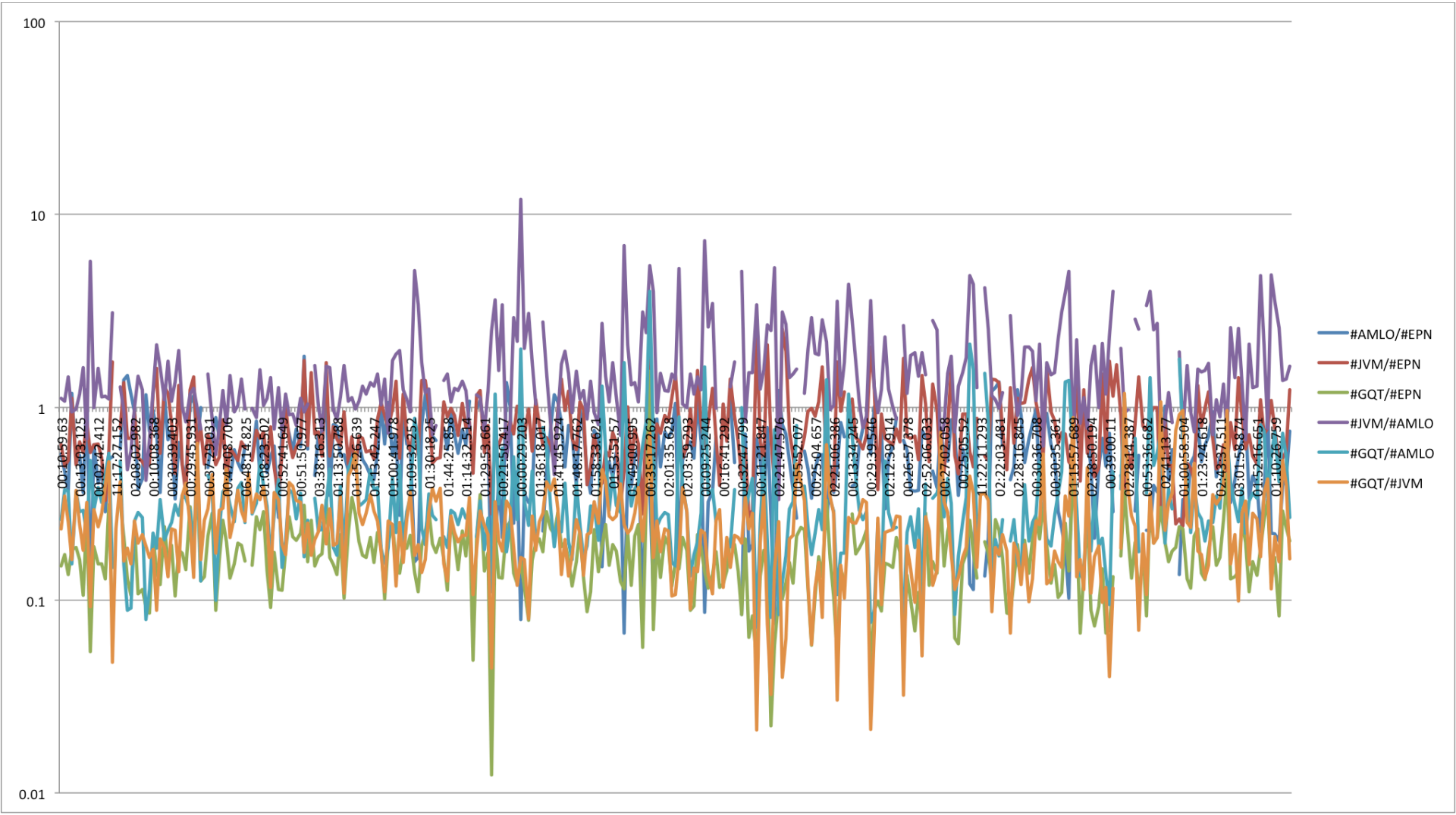


CASILLAS A REVISAR



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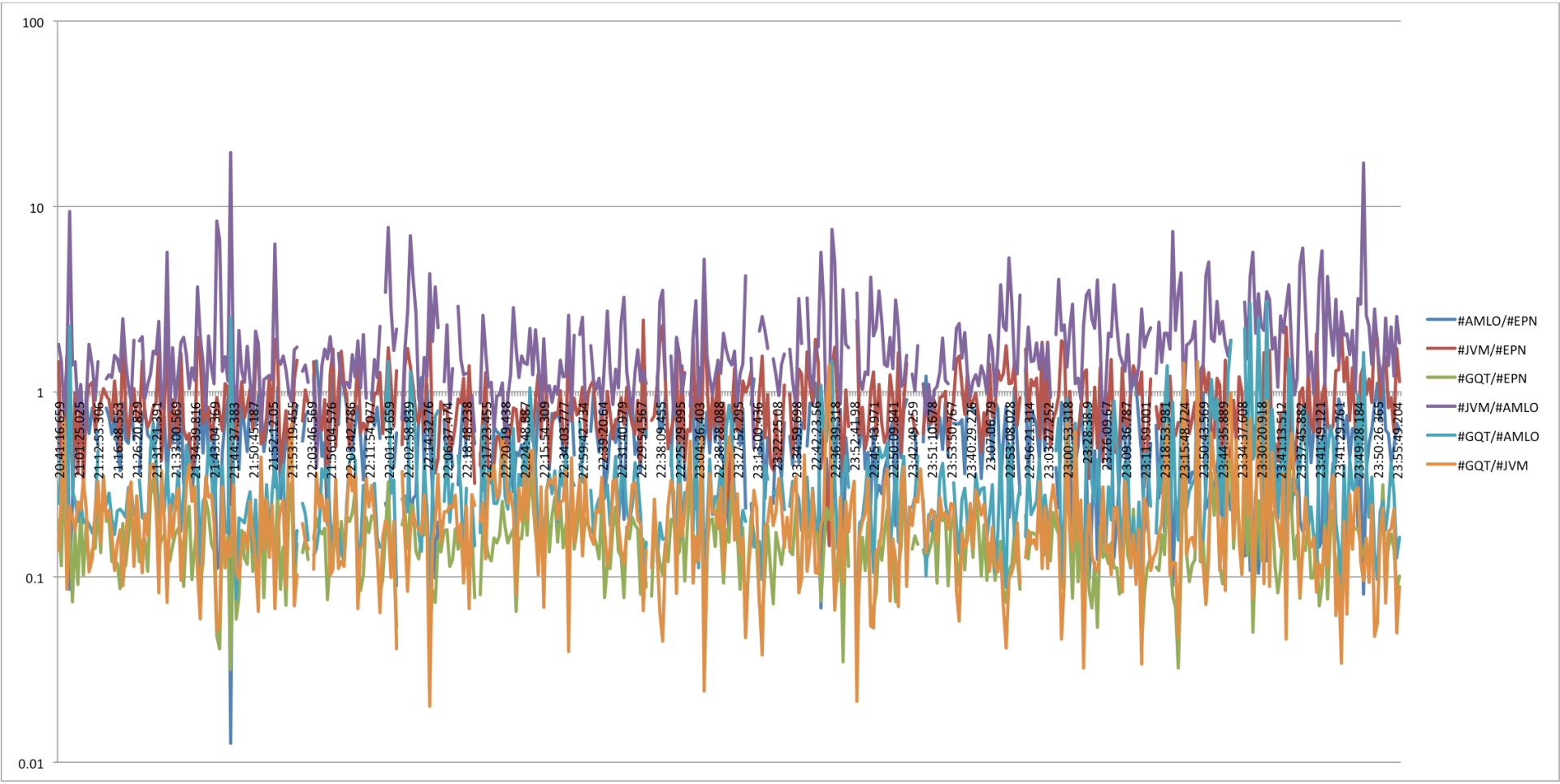

2/julio/2012

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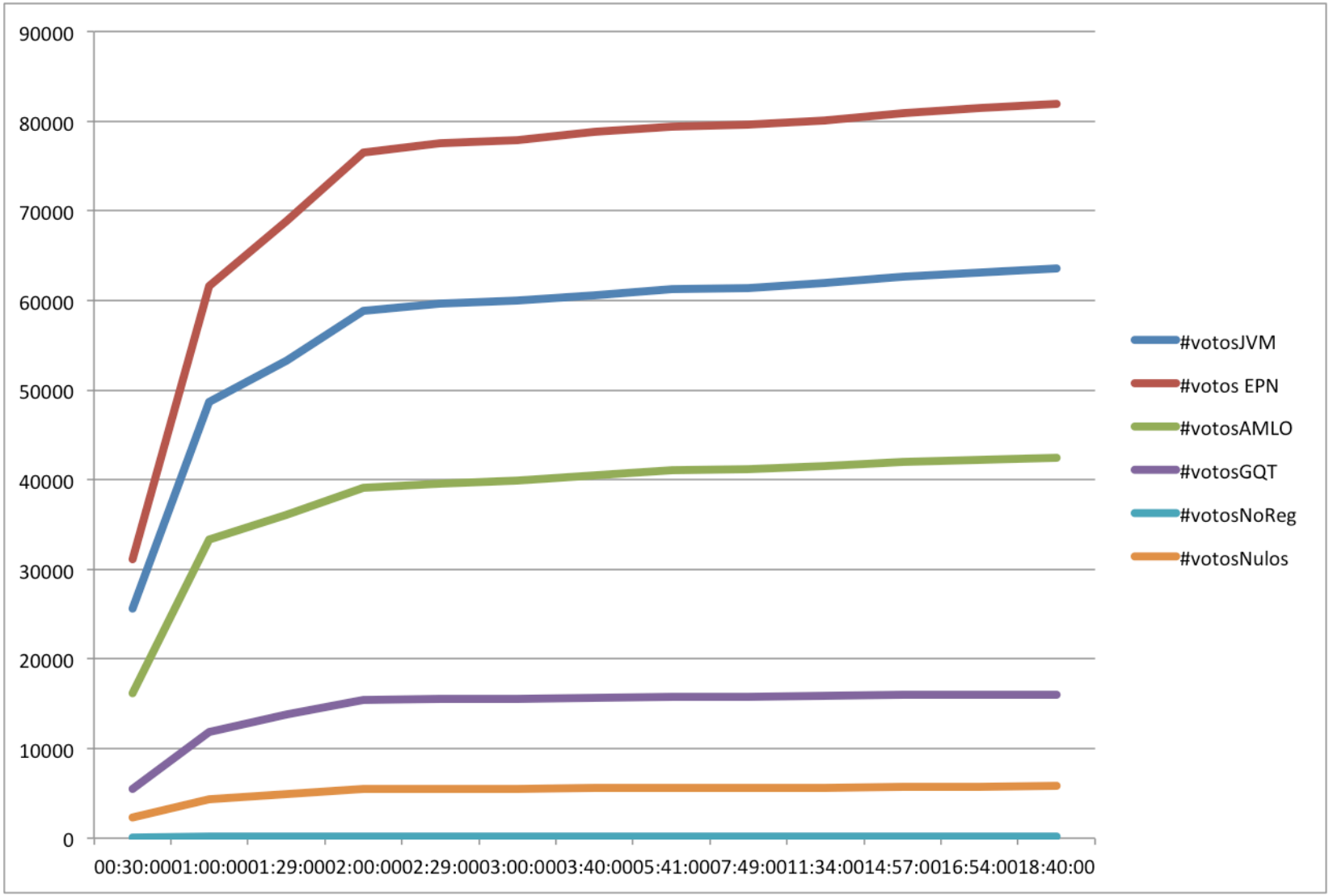

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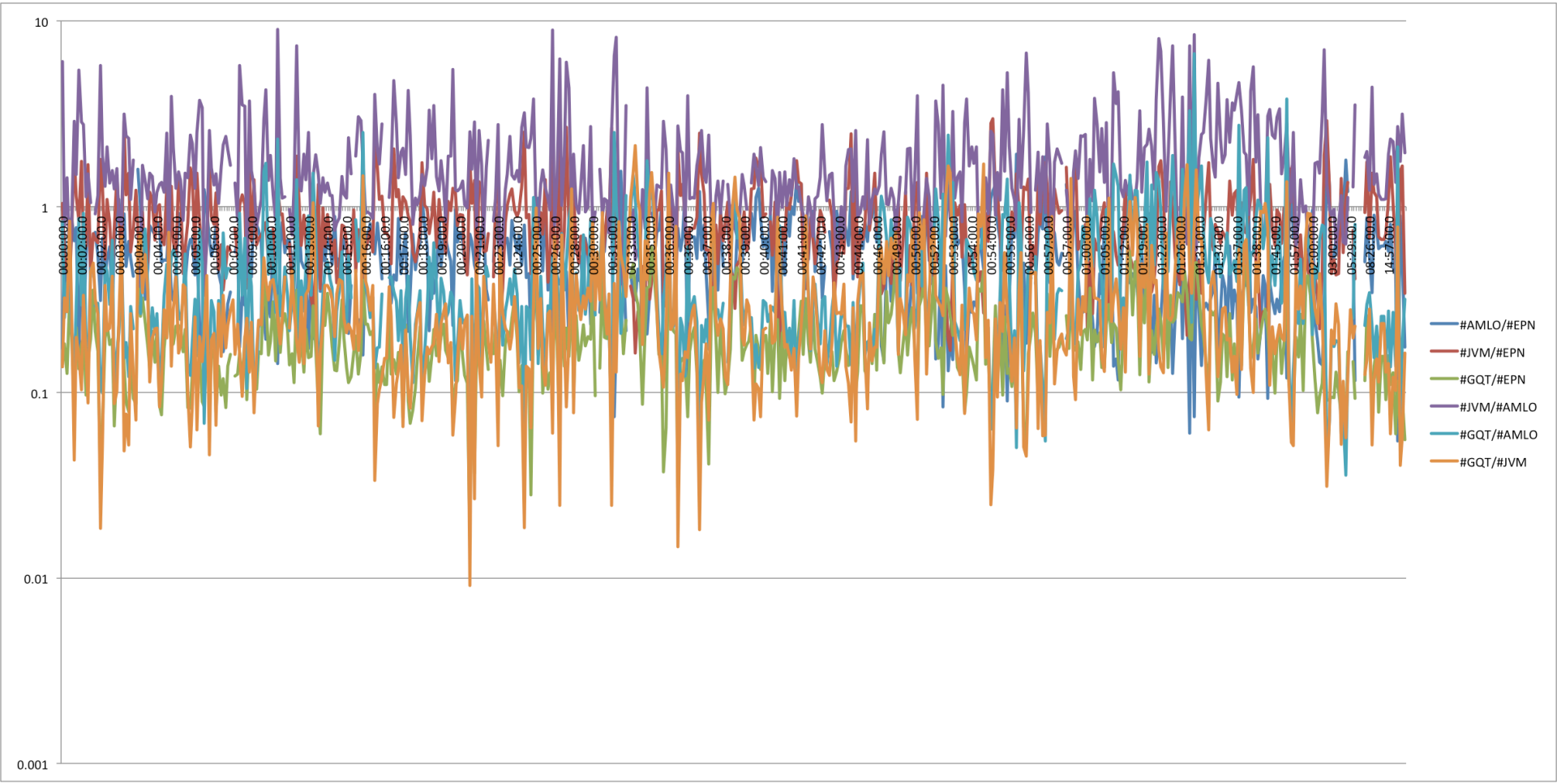

1&2/julio/2012

CONCUERDA CON EL PREP (% redondeado)

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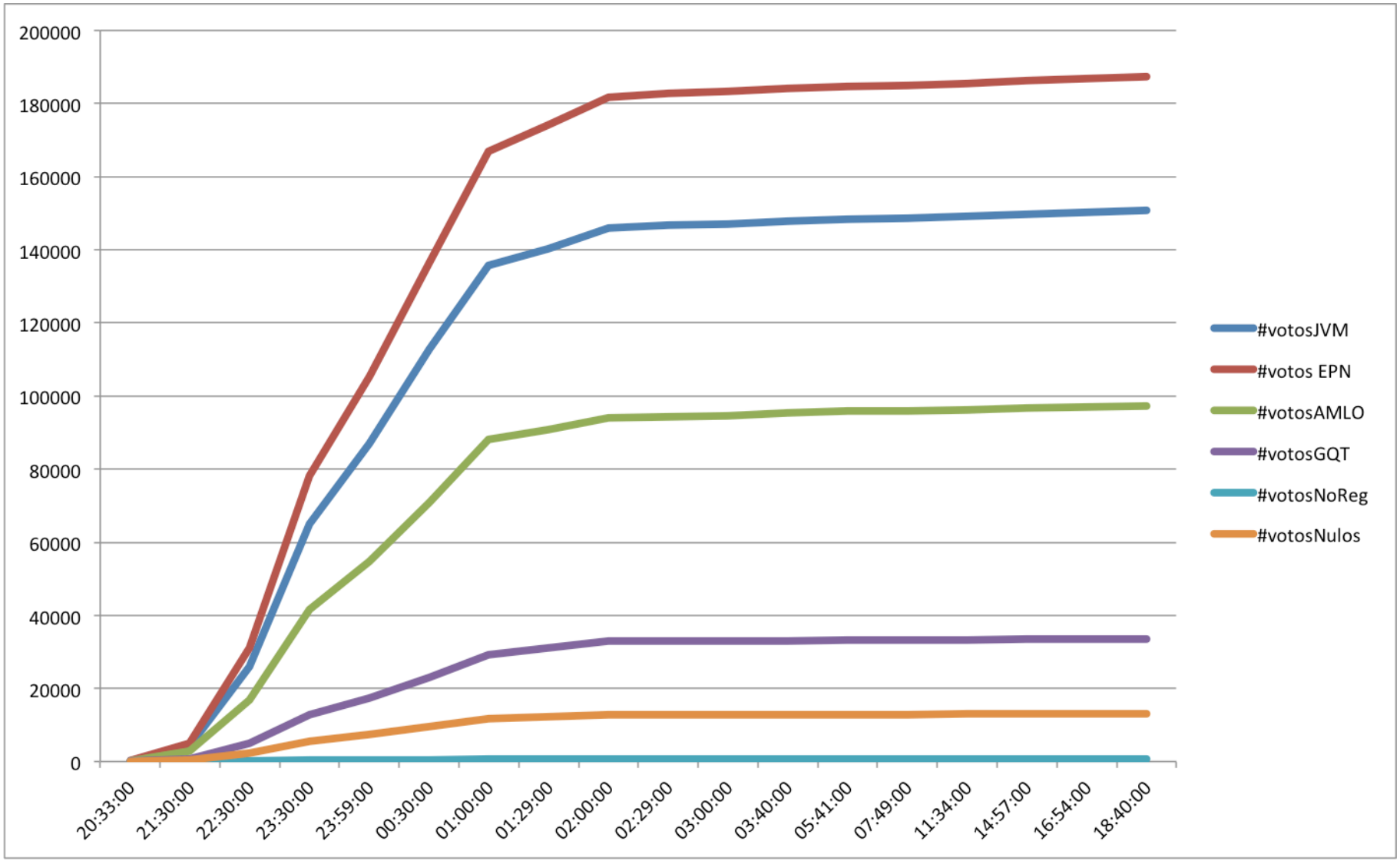

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