

# Reporte de Actividades

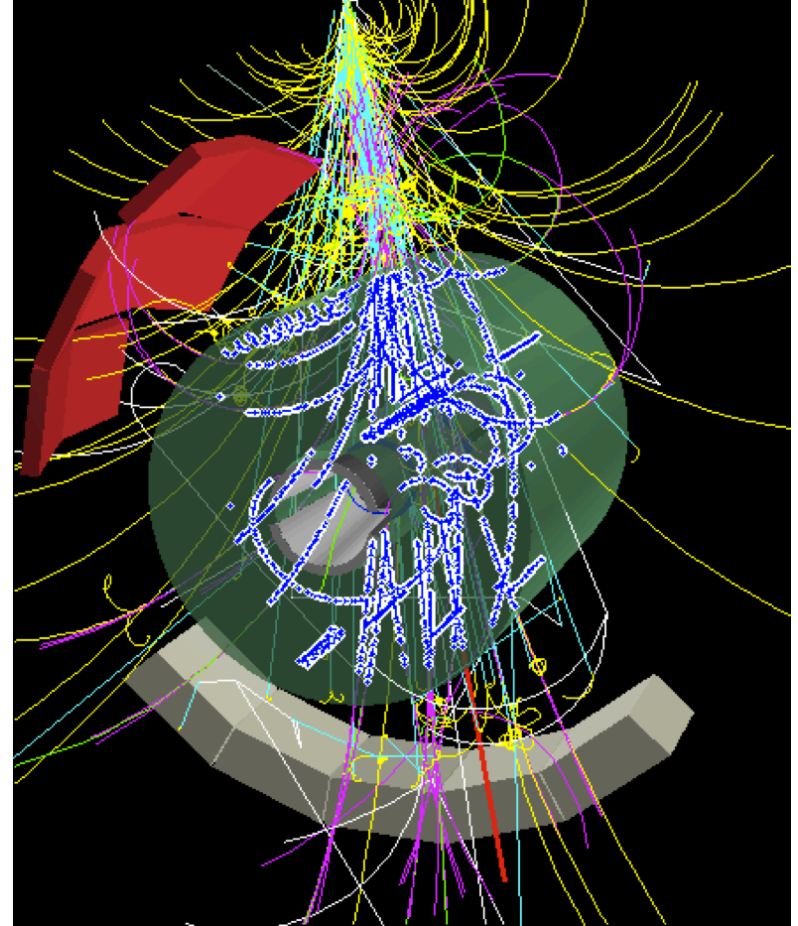
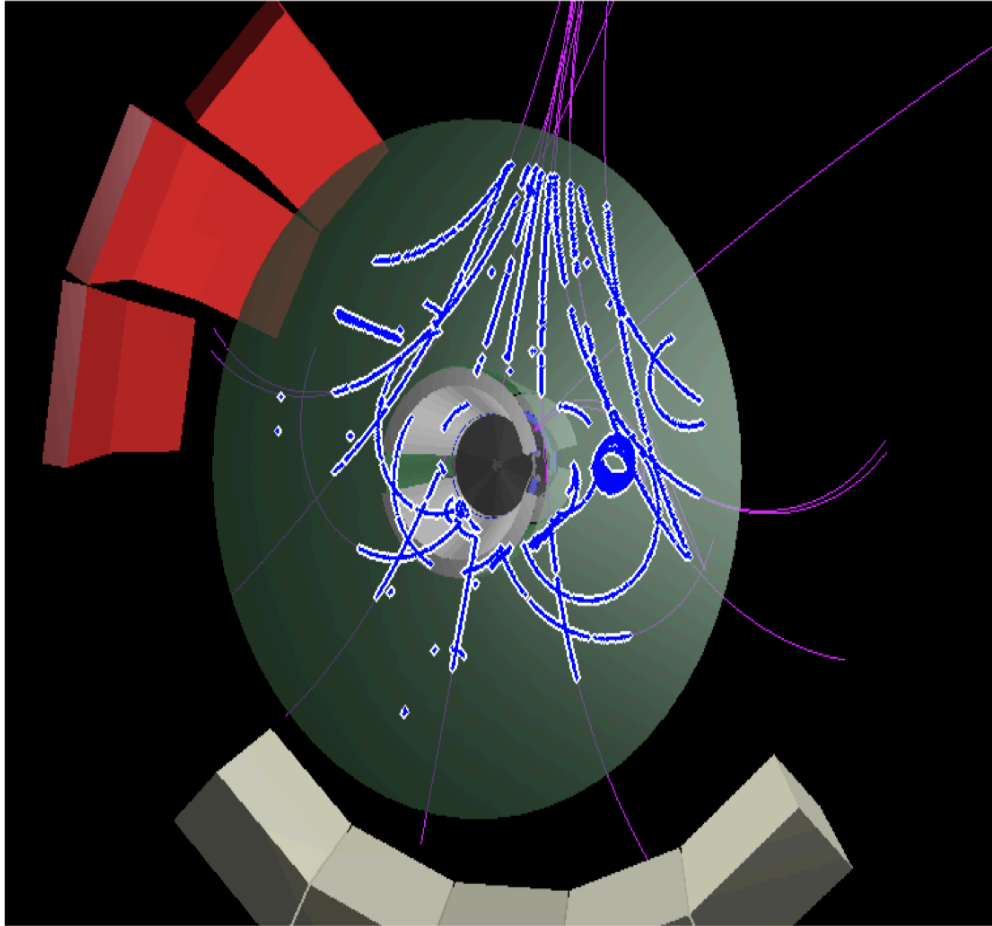
Mario Rodríguez Cahuantzi

13 de Julio de 2012

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## Contenido

- Azucena
- Cósmicos
- Tesis



<http://dx.doi.org/10.1016/j.nima.2009.08.062>

AZUCENA

## 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](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**

Total number of analyzed events: **61,096,442**

Total number of cosmic events: **21,733,570**

Total number of interaction events: **56,828**

Total number with non muon reconstructed: **39,306,044** → **why?**

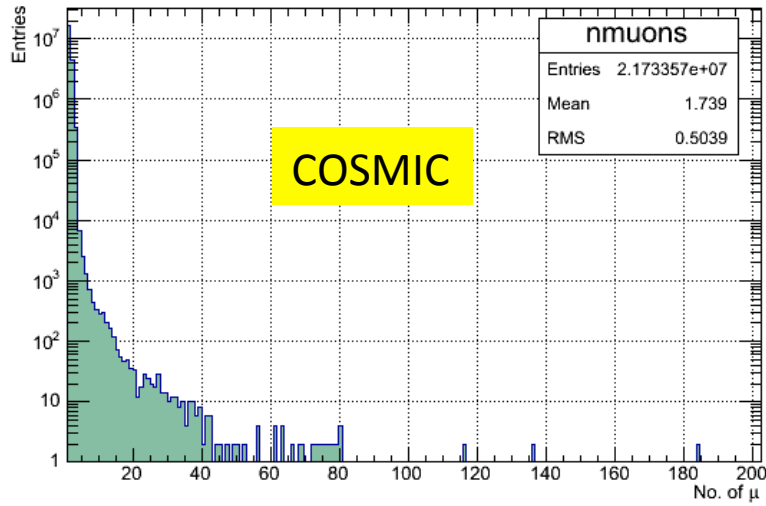
SOFTWARE

ROOT: v5-33-02b

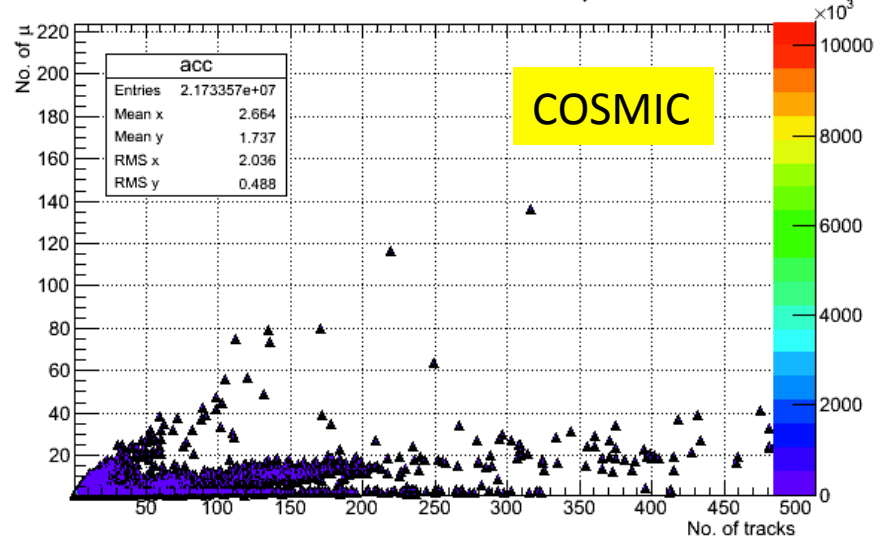
ALIROOT v5-04-25-AN

# DATA ANALYSIS

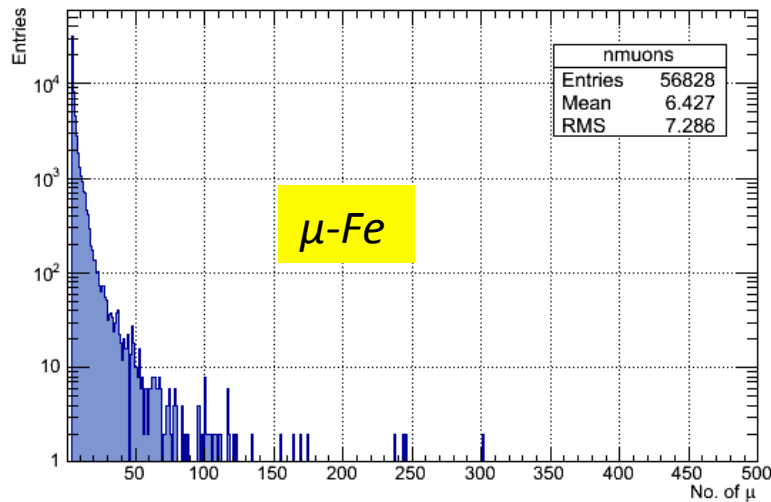
No. of muons



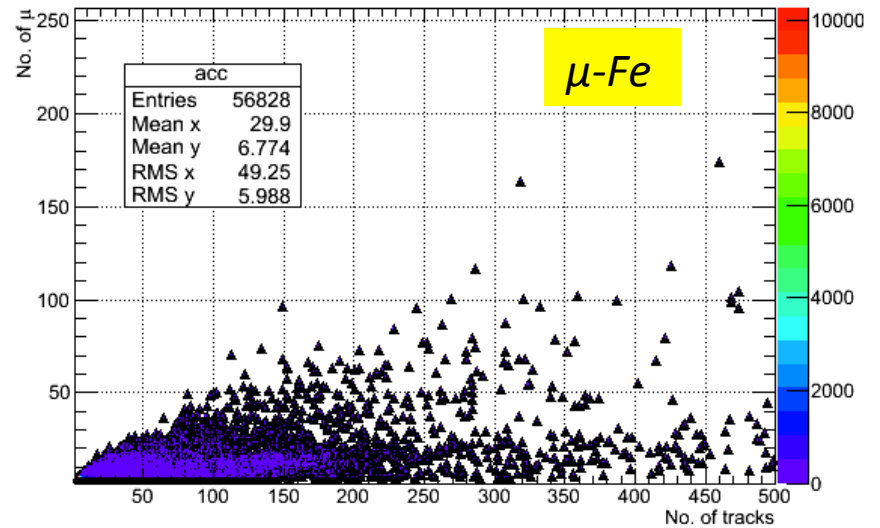
No. of tracks VS No. of  $\mu$



No. of muons

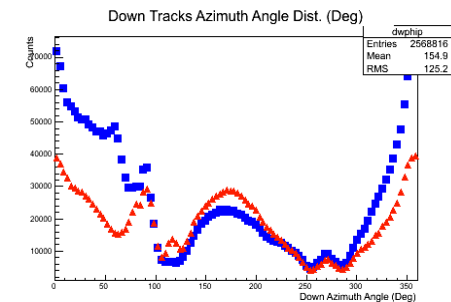
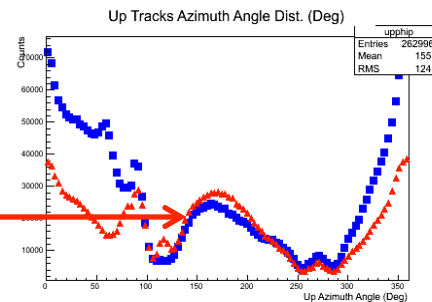
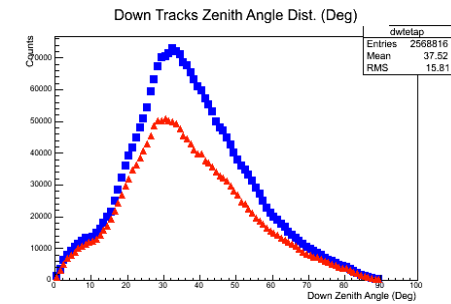
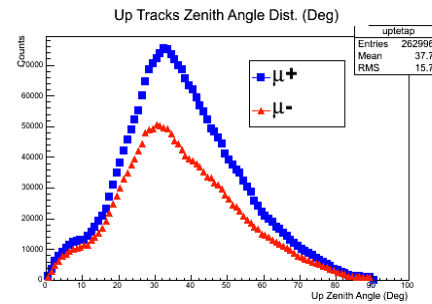
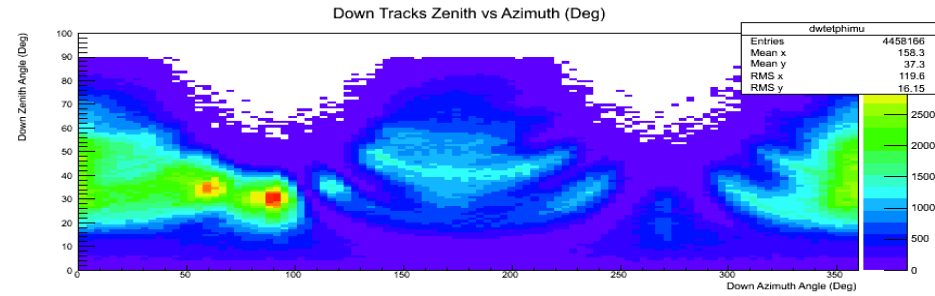
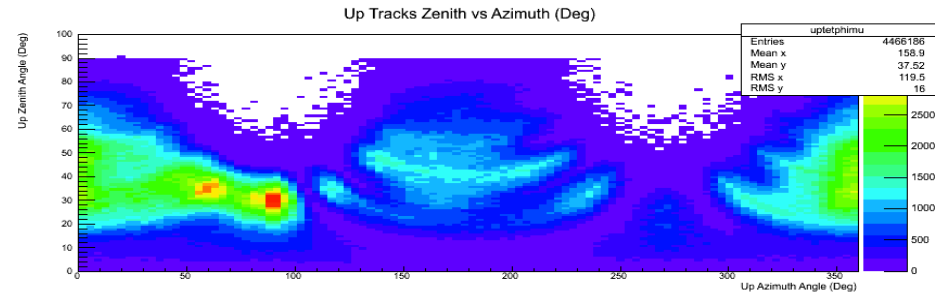
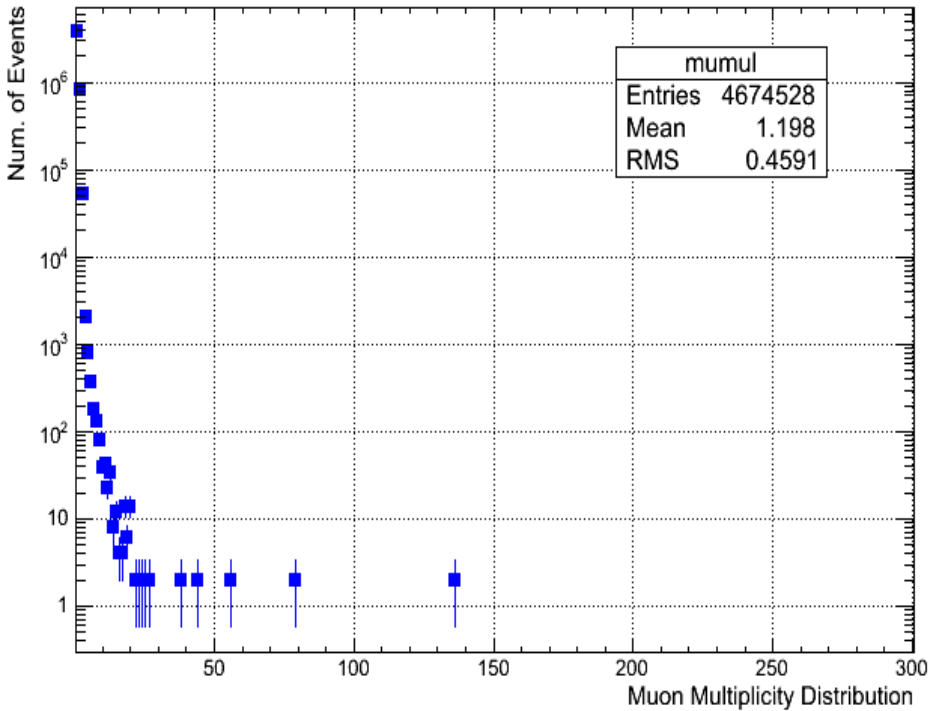


No. of tracks VS No. of  $\mu$



# DATA ANALYSIS

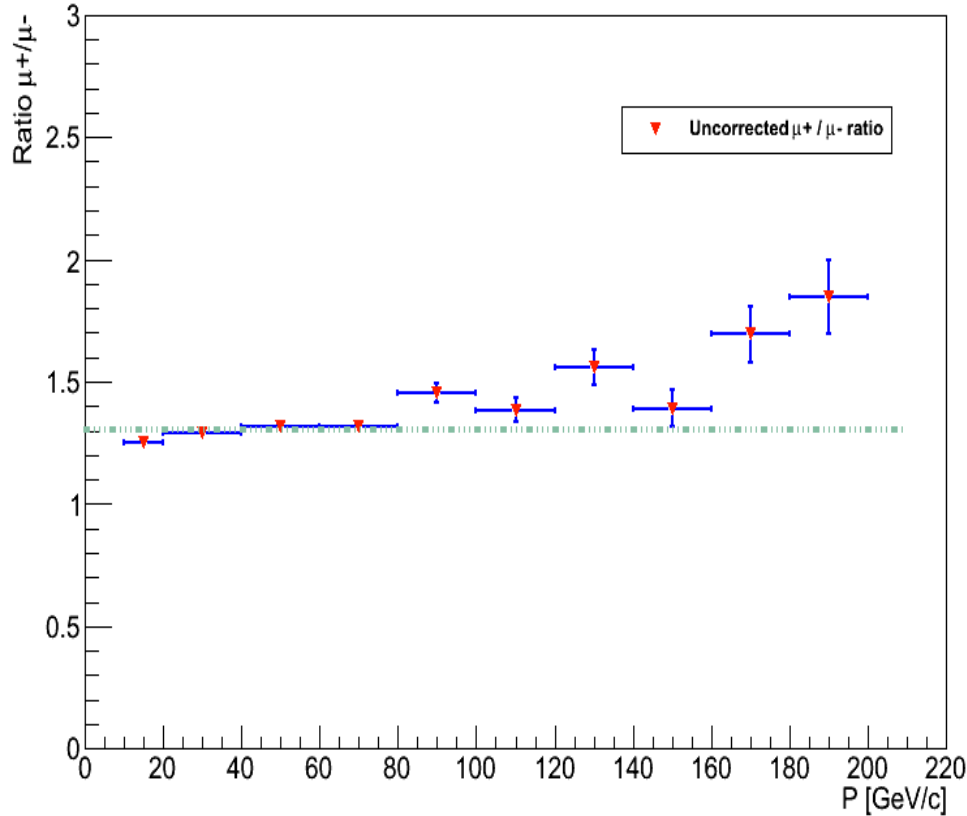
## Muon Multiplicity Distribution (all triggers)



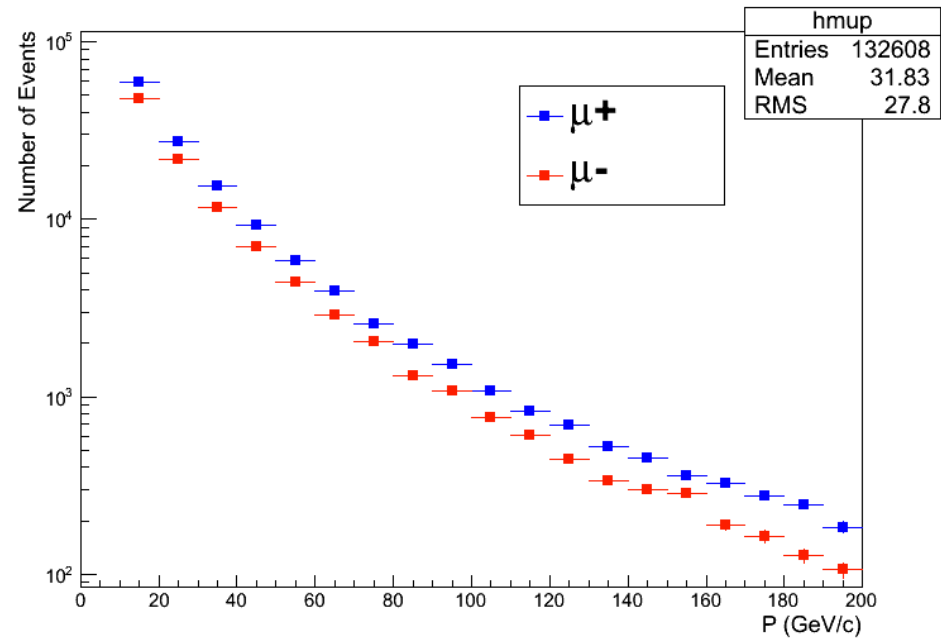
SOME PROBLEMS WITH THE AZIMUTH ANGLE at 150 degrees, any idea?

# DATA ANALYSIS

## Uncorrected $\mu^+/\mu^-$ Ratio



## Uncorrected Momentum Distribution



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

# TESIS

PRIMERA VERSIÓN DE LA TESIS ENVIADA EL MIÉRCOLES 27 DE JUNIO PARA LA REVISIÓN: SEGUNDA VERSIÓN ENVIADA EL MARTES 10 DE JULIO.

TERCERA VERSIÓN LUNES 16 DE JULIO A MÁS TARDAR

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 Cautle (ICN-UNAM)

Arturo Fernández (FCFM-BUAP)

SEGUNDA REVISIÓN PASADO MIÉRCOLES 4 DE JULIO

→ resumen modificado

→ Conclusiones

→ actualización de capítulos 1,2, 3 y 4

→ Versión 3 a enviar próximo lunes