Self-instroduction @SpinFest 2016

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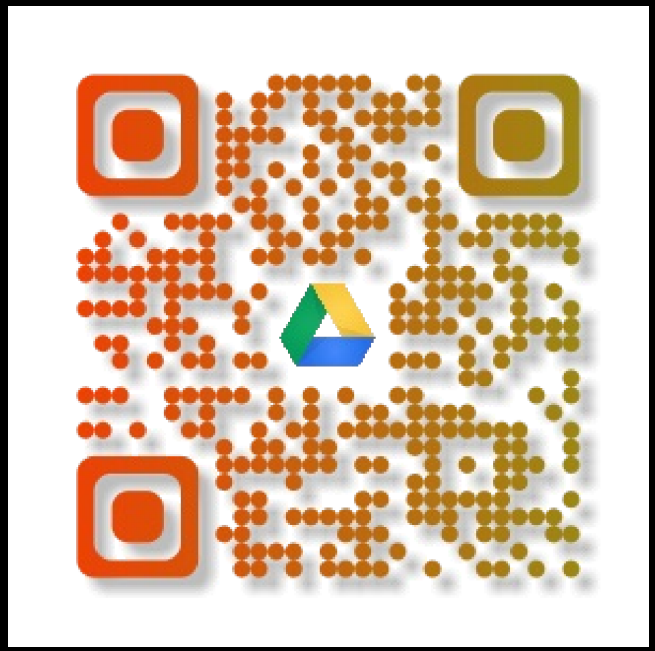
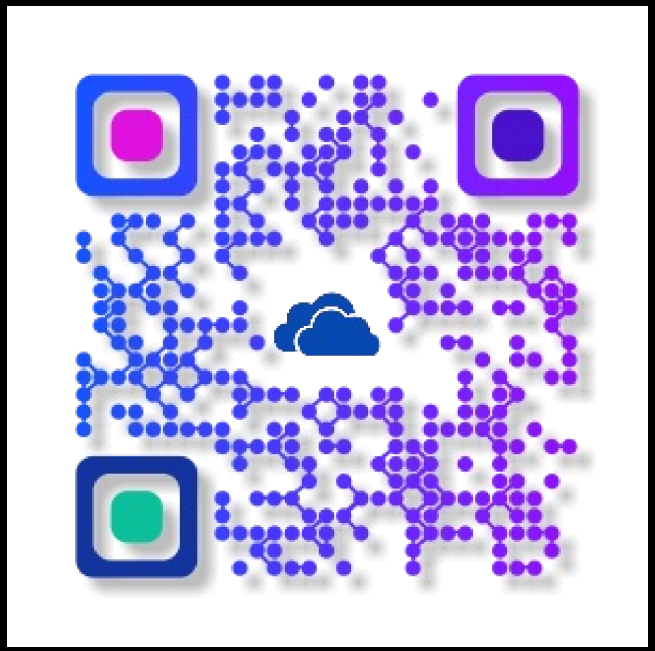
@ ISU @ BNL

July 14, 2017





Overview

Self-instroduction
- self-intro
- Interests

A little intro my work
- FMS Simulation
- Geometry Look
- How it works
- Correlations

Self-instroduction

self-intro

- I come from Kaifeng,located in east-central China, one of the Eight Ancient Captitals of China.
- Started my Ph.D pursing in Fall, 2014, Iowa State University, superwised under Dr. John Lajoie. Finished courses and passed qualification exams.
- I began with STAR spin group to learn stuffs this summer and I plan to stay in BNL for the next 3 years.
- I will participate in building Postshower detector soon.

Interests

- Passionate in coding, Linux, Open Source. . .
- Interested in electonics, robotics, 3D printer. . .
- Want to learn more about artificial intellegence, machine learning, big data. . .
- Read tech-news everyday, like watching reviews of new-tech products.
- Call me if you have any software or hardware activities in BNL.

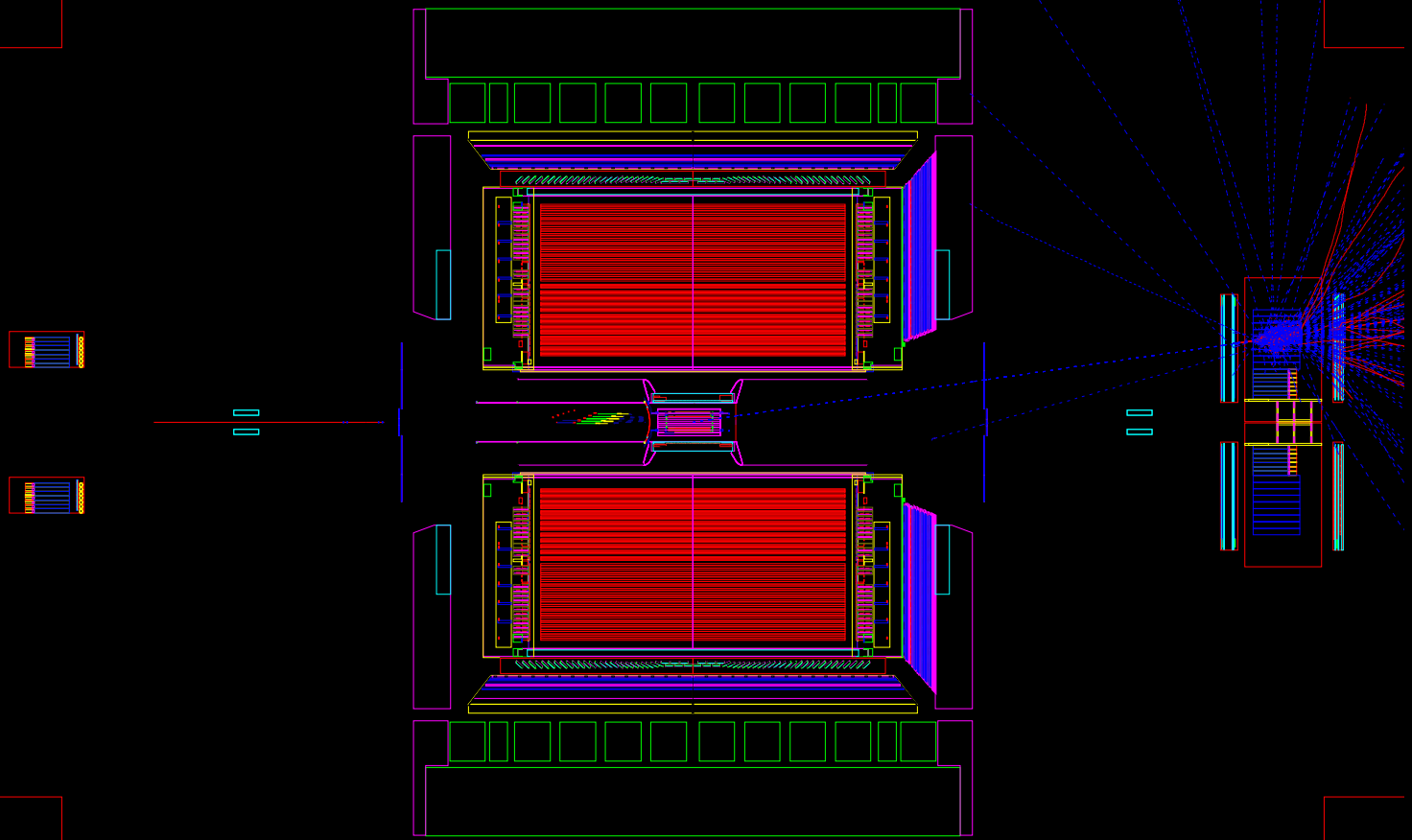
A little intro my work

FMS Simulation

- Forward Meson Spectrometer & Preshower & Postshower measure A_N of Drell-Yan production(e^-/e^+).
- Challenge is to suppress the larger hadron process, which is on the order of $10^5 \sim 10^6$ than DY process.
- FMS cut will separate μ^-, most part of hadrons.
- plus Preshower first two layers cut will separate γ from charged particles.
- plus Preshower third layer cut will separate e^- from hadron.
- plus Postshower cut will provide e^- separation from hadron improvement.

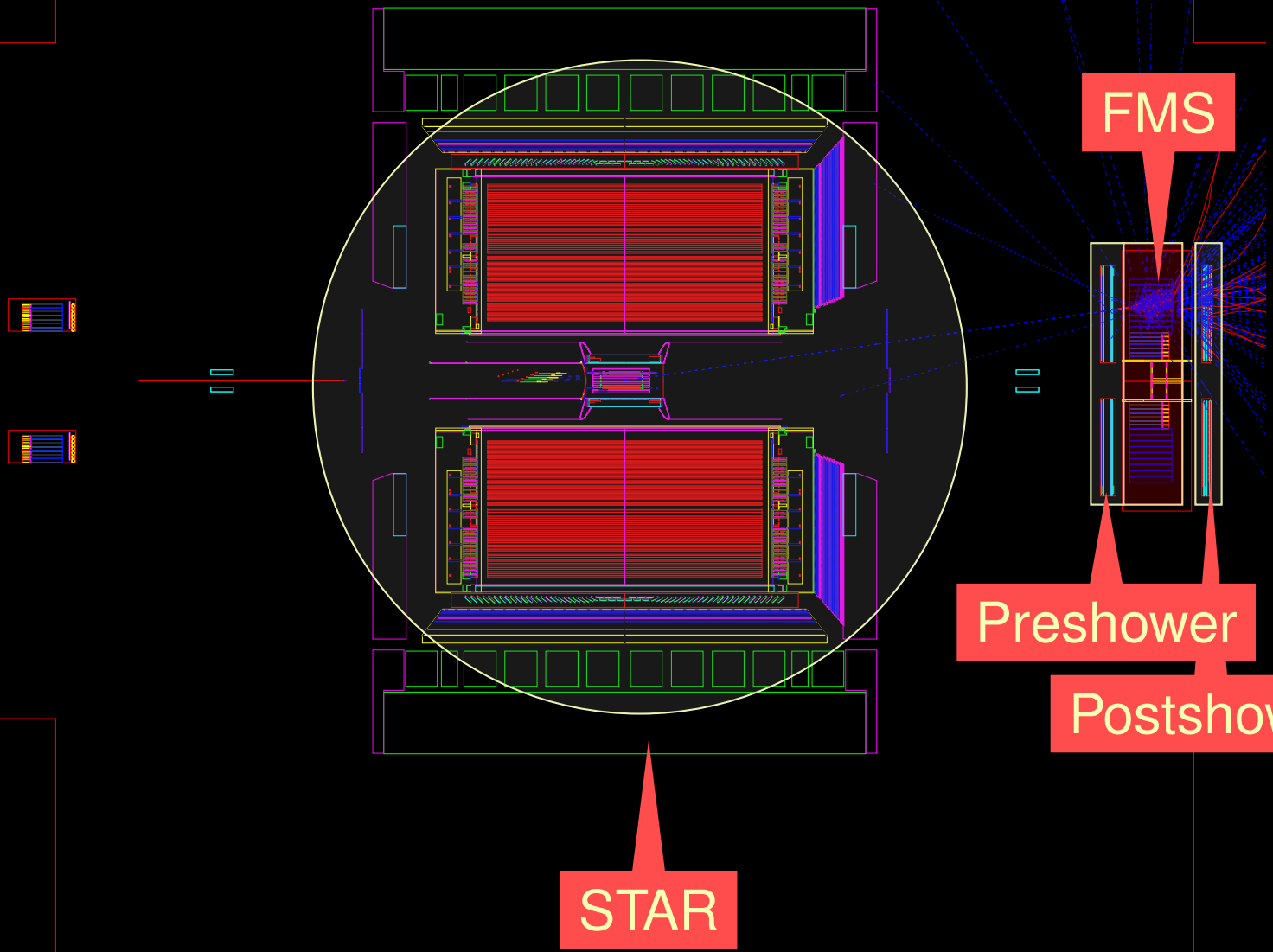
Geometry Look

Overall Look

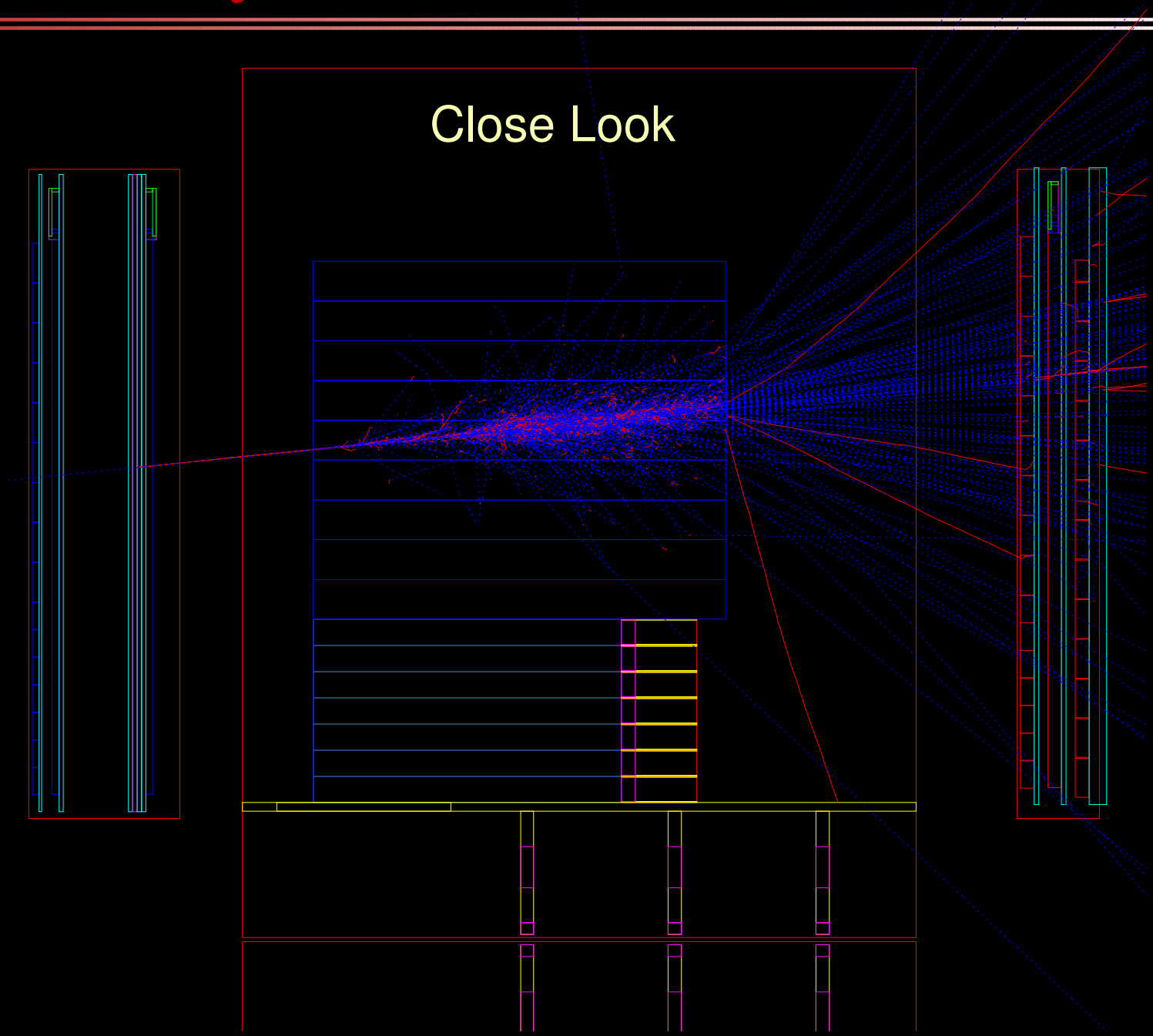


Geometry Look

Overall Look



Geometry Look



How it works

● 1.6 MeV ● 1.0 GeV ● 3.2 MeV

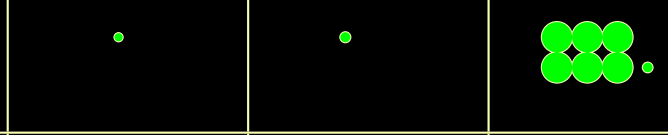
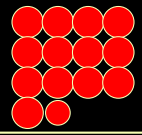
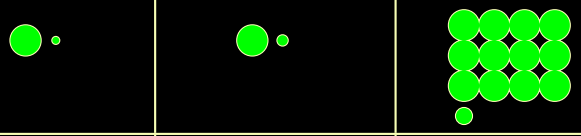
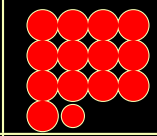
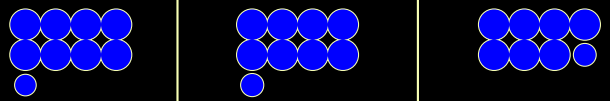
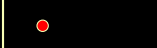
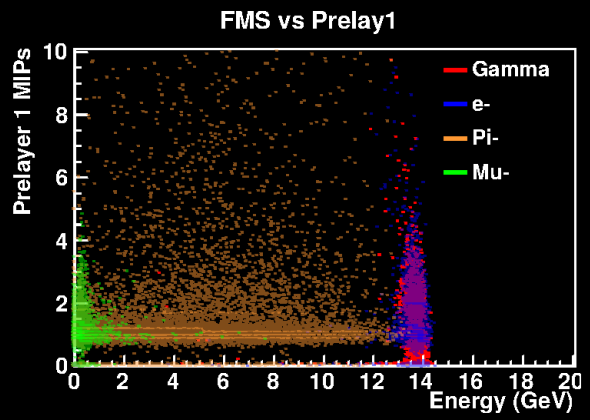
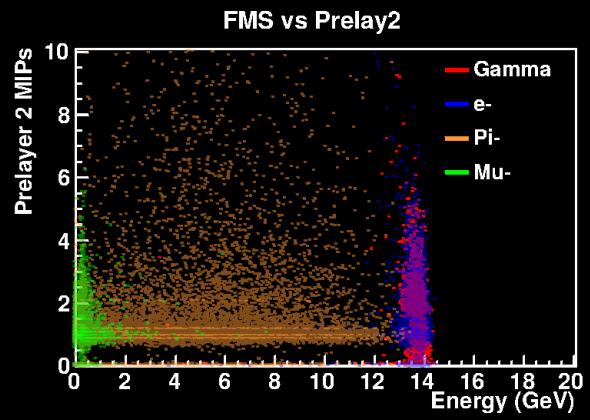
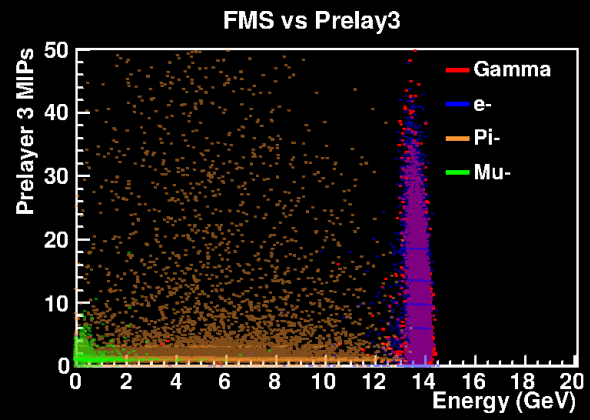
	Preshower			FMS	Postshower		
particle	Layer 1	Layer 2	Layer 3		Layer 1	Layer 2	Layer 3
γ							
e^-							
π^-							
μ^-							

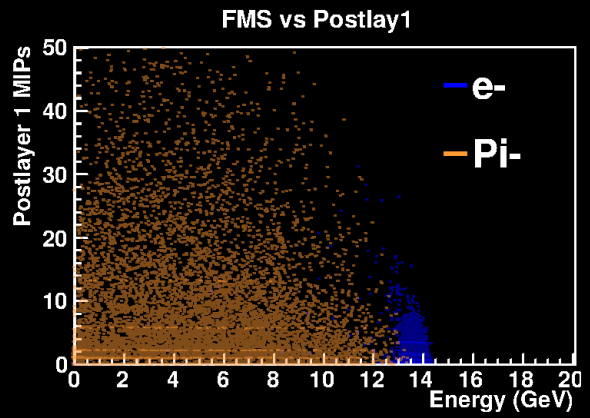
Table 1: Energy deposited in different detectors for different particles

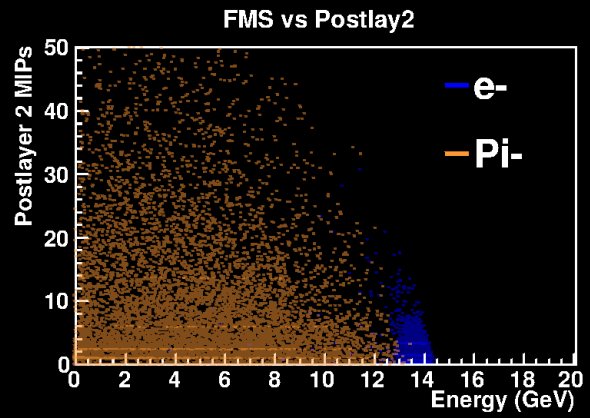
Correlations

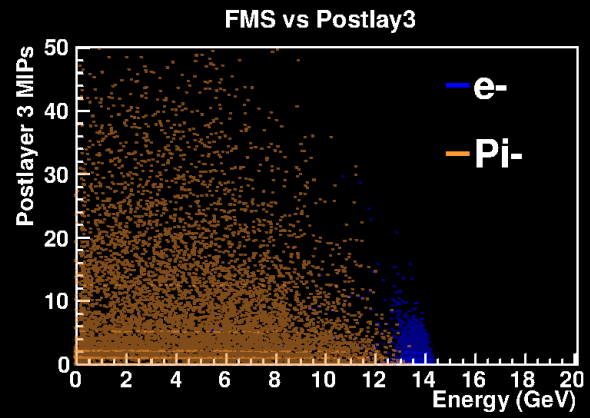


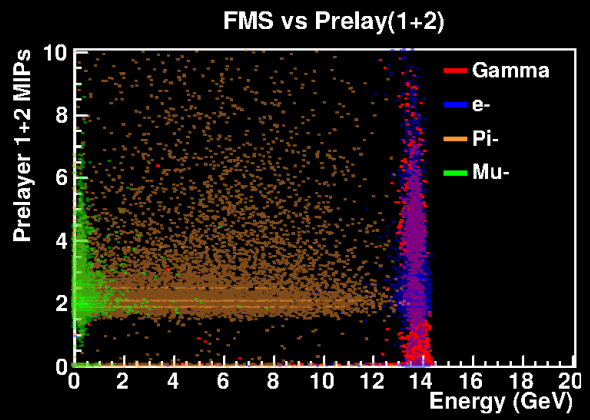


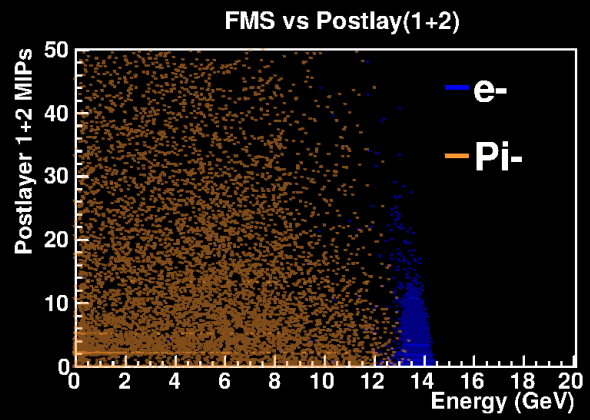


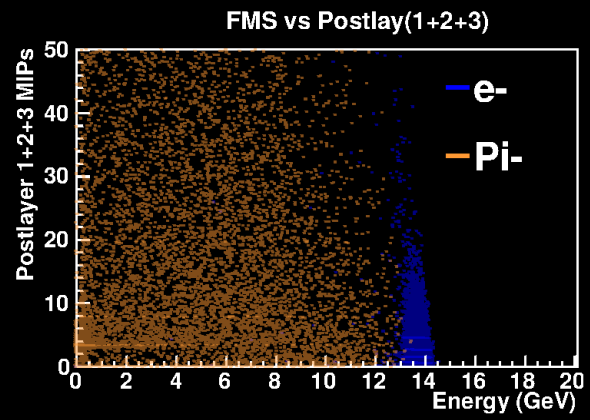












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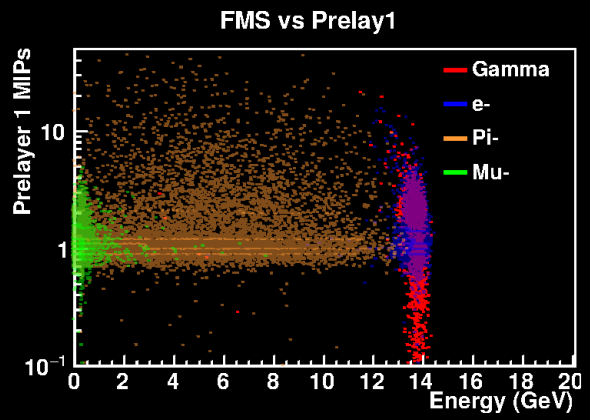

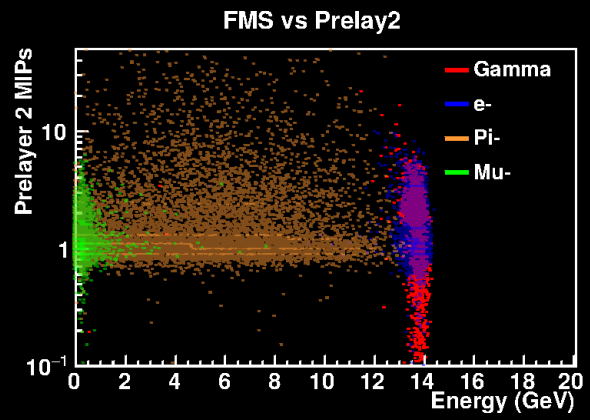

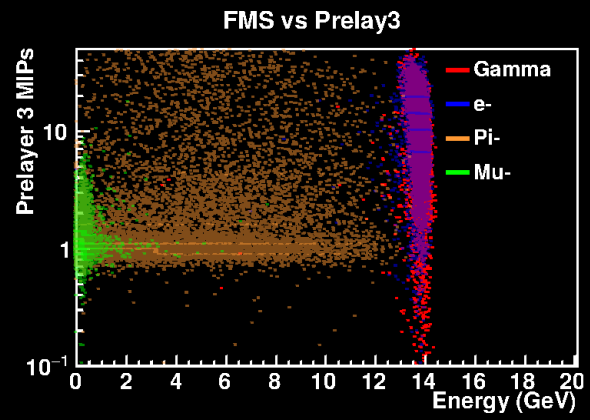

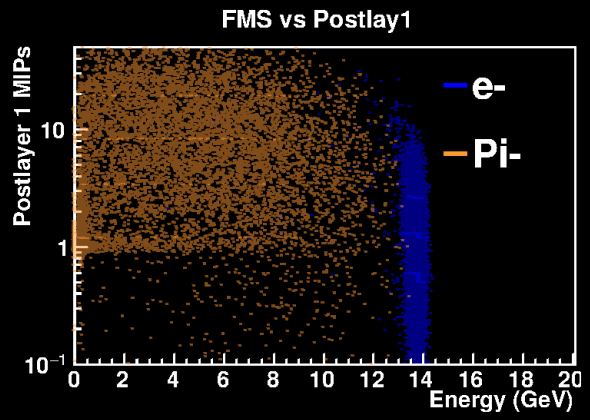

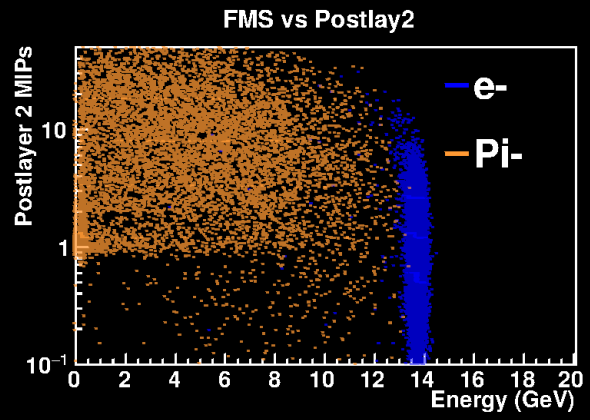

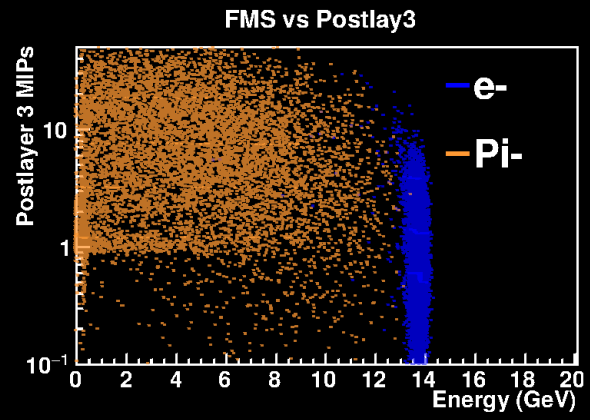

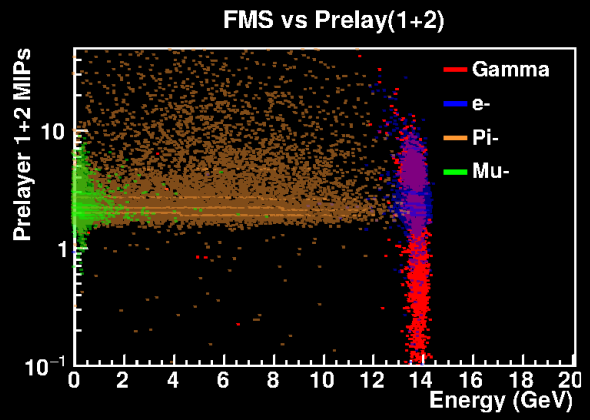

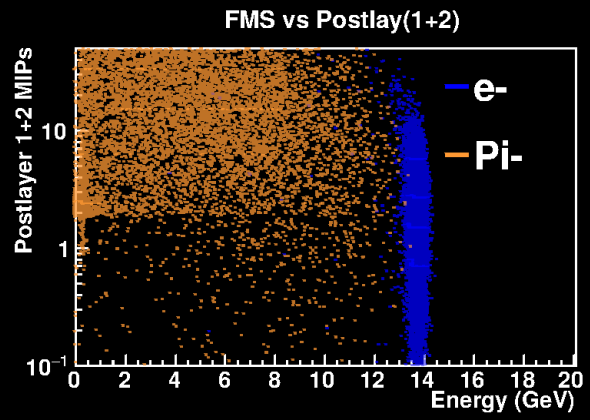

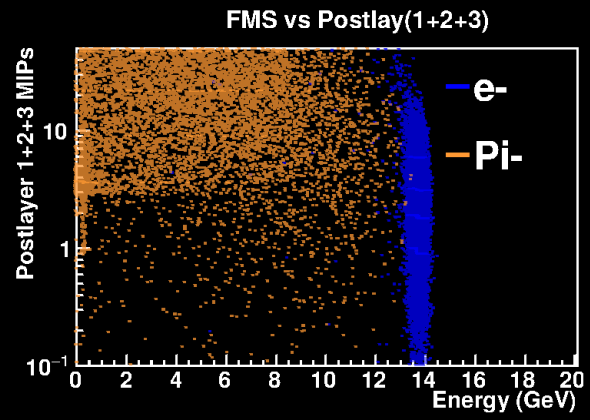

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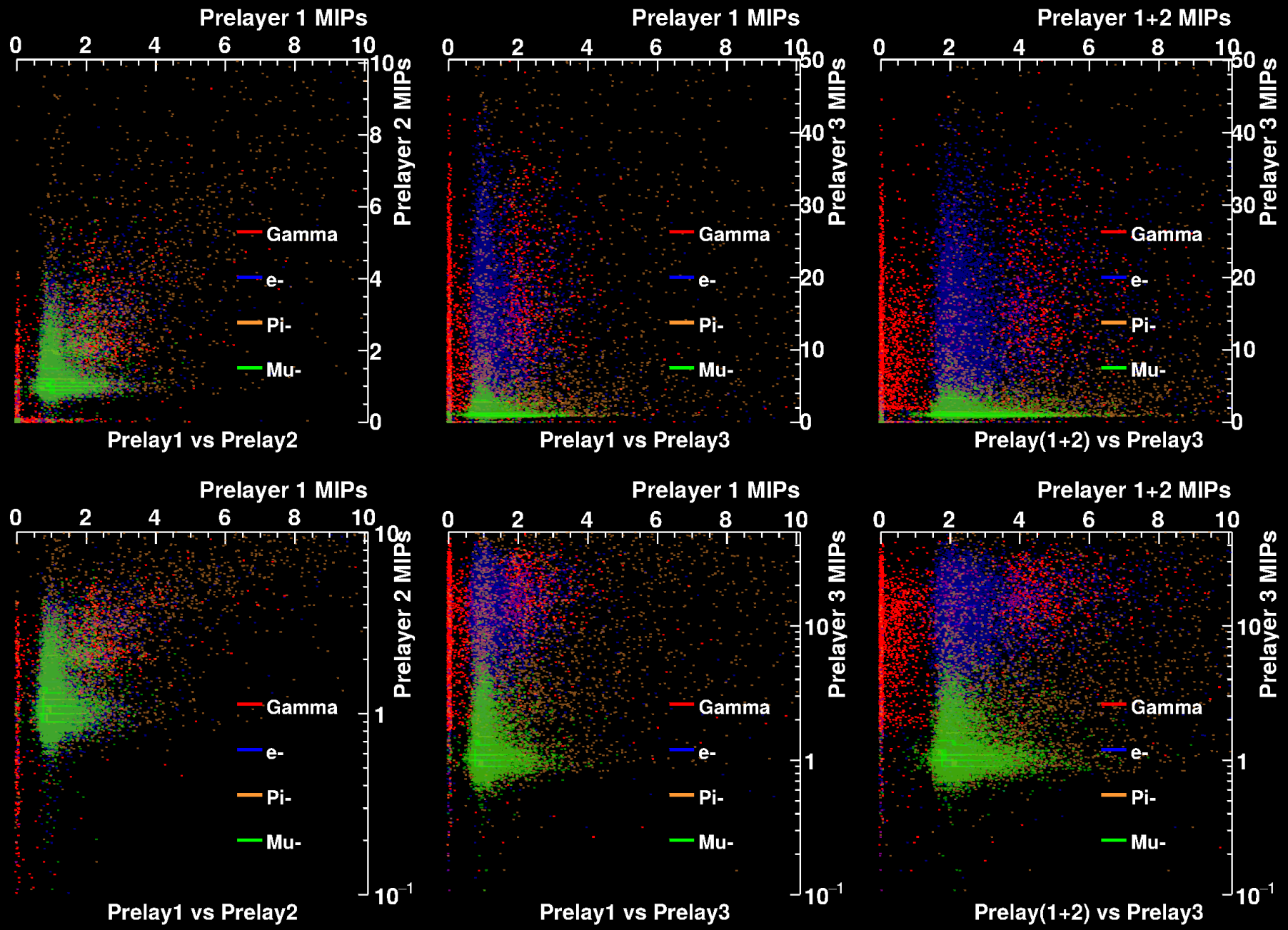

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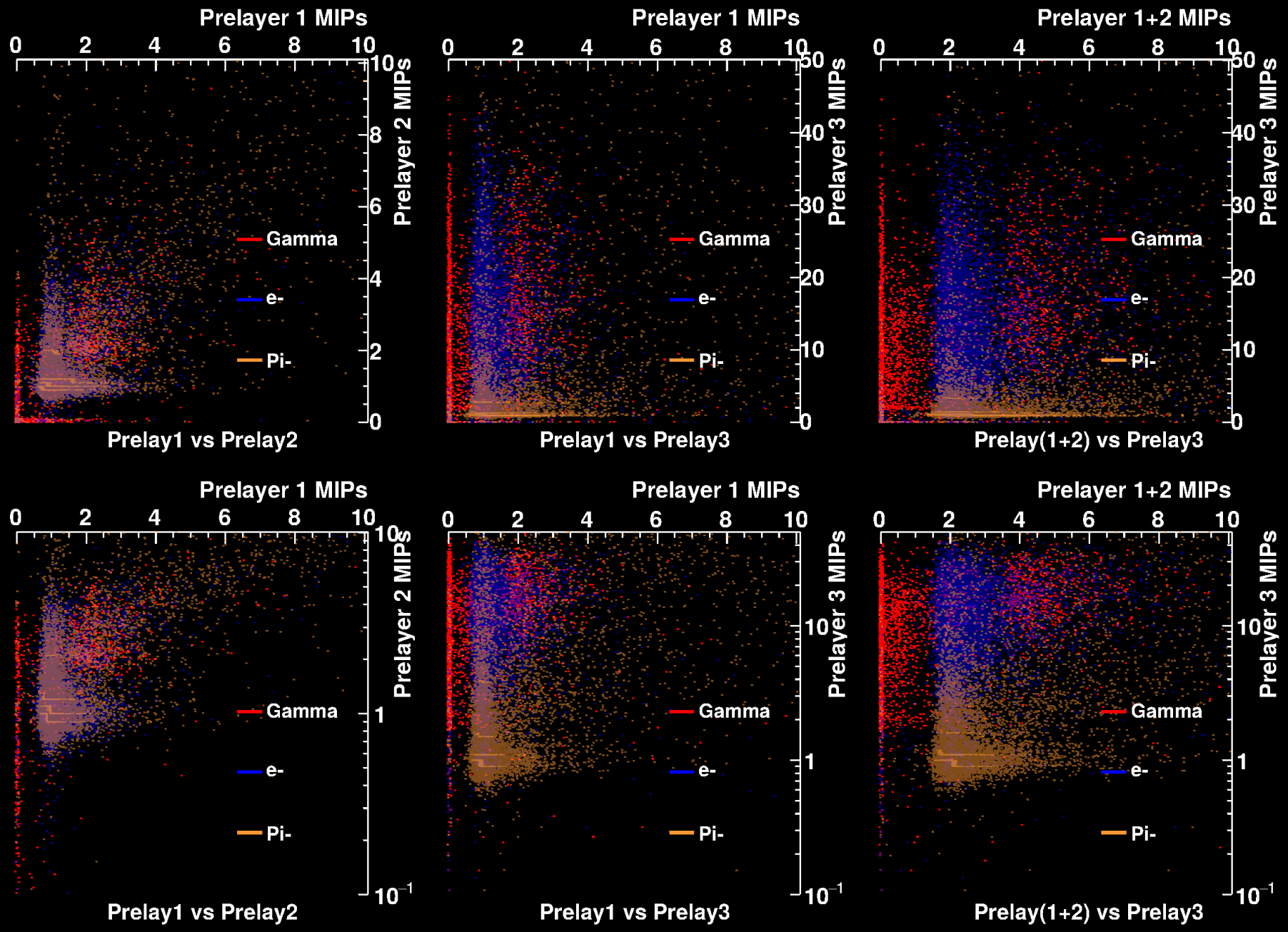

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