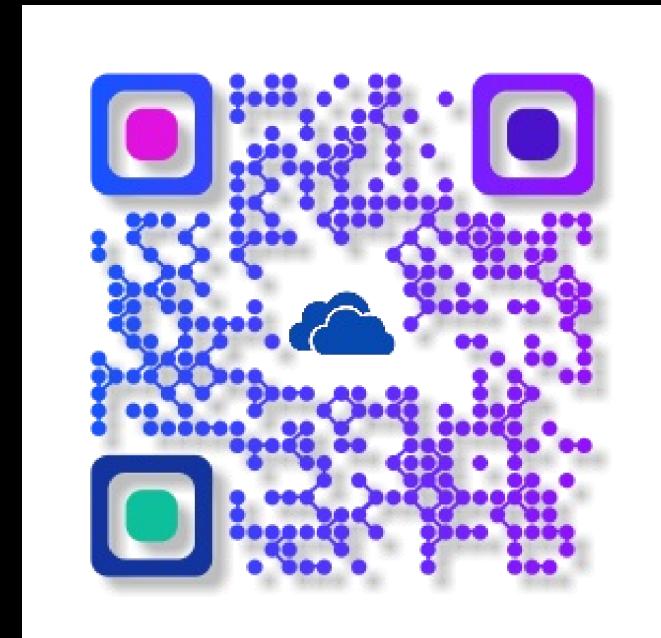
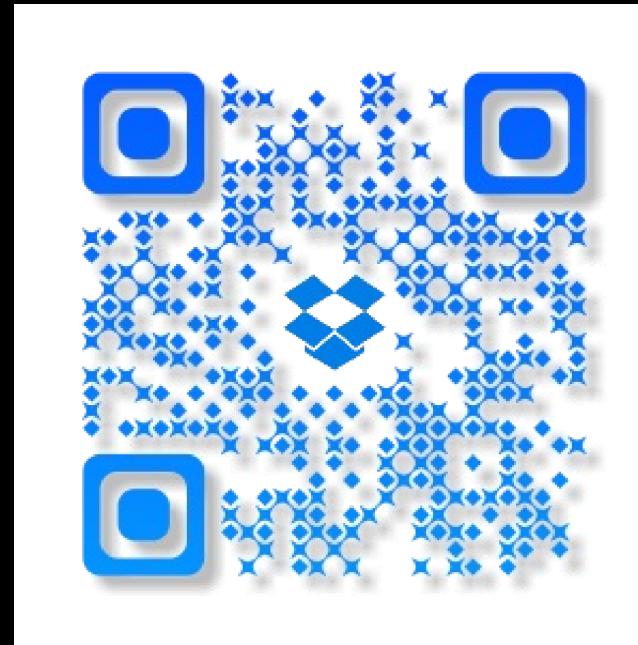
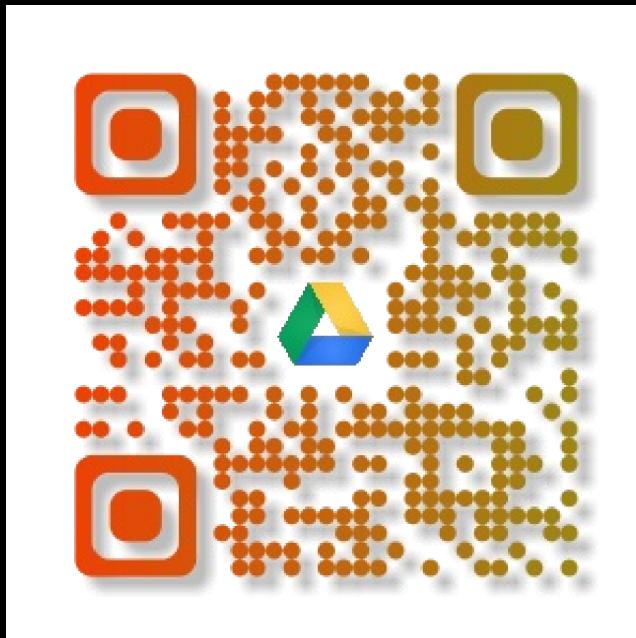


Self-introduction @SpinFest 2016

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@ ISU @ BNL

 July 26, 2016



Overview

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A little intro my work

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Interests

A little intro my work

FMS Simulation

Geometry Look

How it works

Correlations

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A little intro my work

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self-intro

Self-introduction

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❖ Interests

A little intro my work

- ☞ I come from Kaifeng, located in east-central China, one of the Eight Ancient Capitals 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

Self-introduction

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❖ Interests

A little intro my work

- ☞ Passionate in coding, Linux, Open Source...
- ☞ Interested in electronics, robotics, 3D printer...
- ☞ Want to learn more about artificial intelligence, 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.

Self-introduction

A little intro my work

- ❖ FMS Simulation
- ❖ Geometry Look
- ❖ How it works
- ❖ Correlations

A little intro my work

FMS Simulation

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❖ FMS Simulation

❖ Geometry Look

❖ How it works

❖ Correlations

- ☞ 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

Self-introduction

A little intro my work

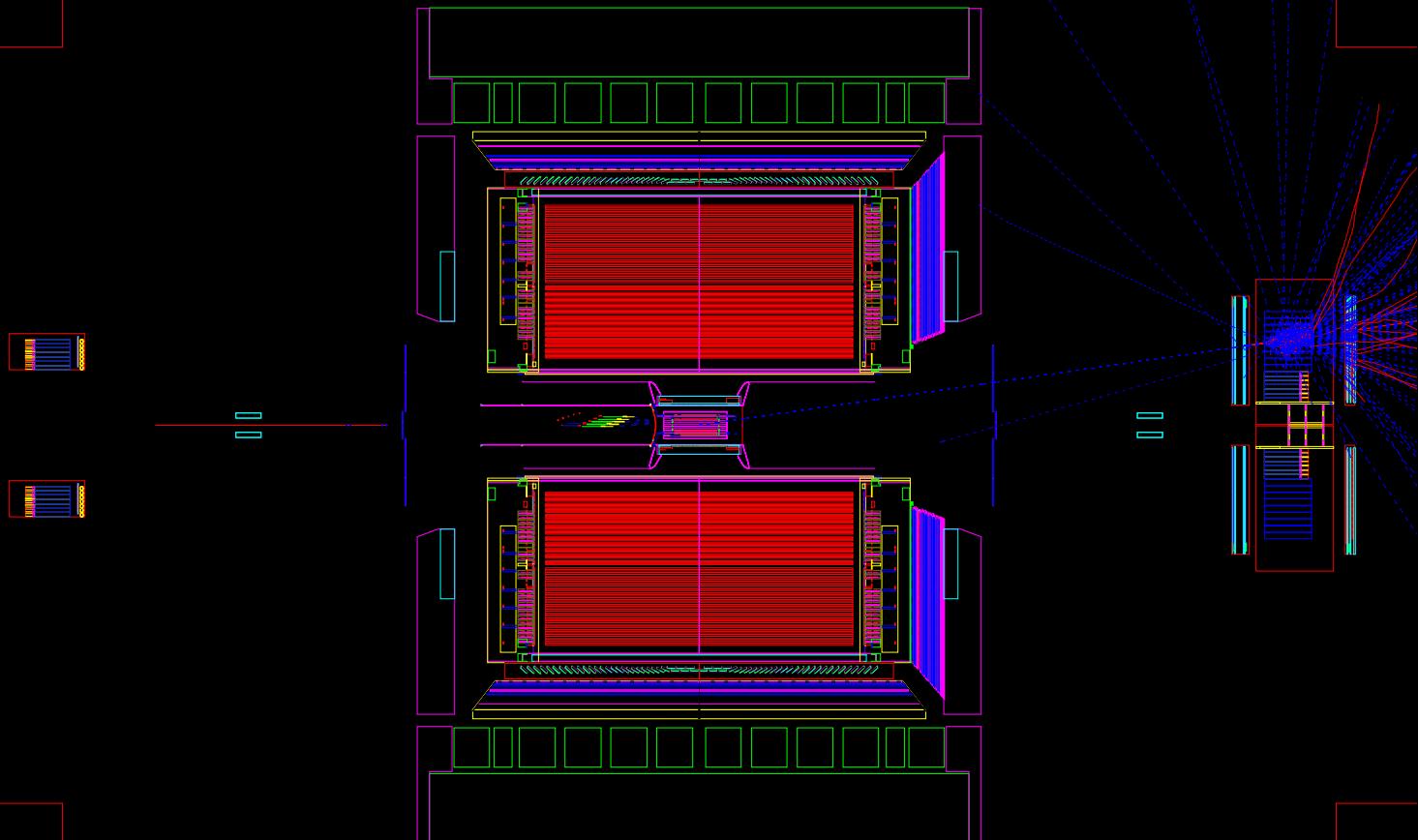
❖ FMS Simulation

❖ Geometry Look

❖ How it works

❖ Correlations

Overall Look



Geometry Look

Self-introduction

A little intro my work

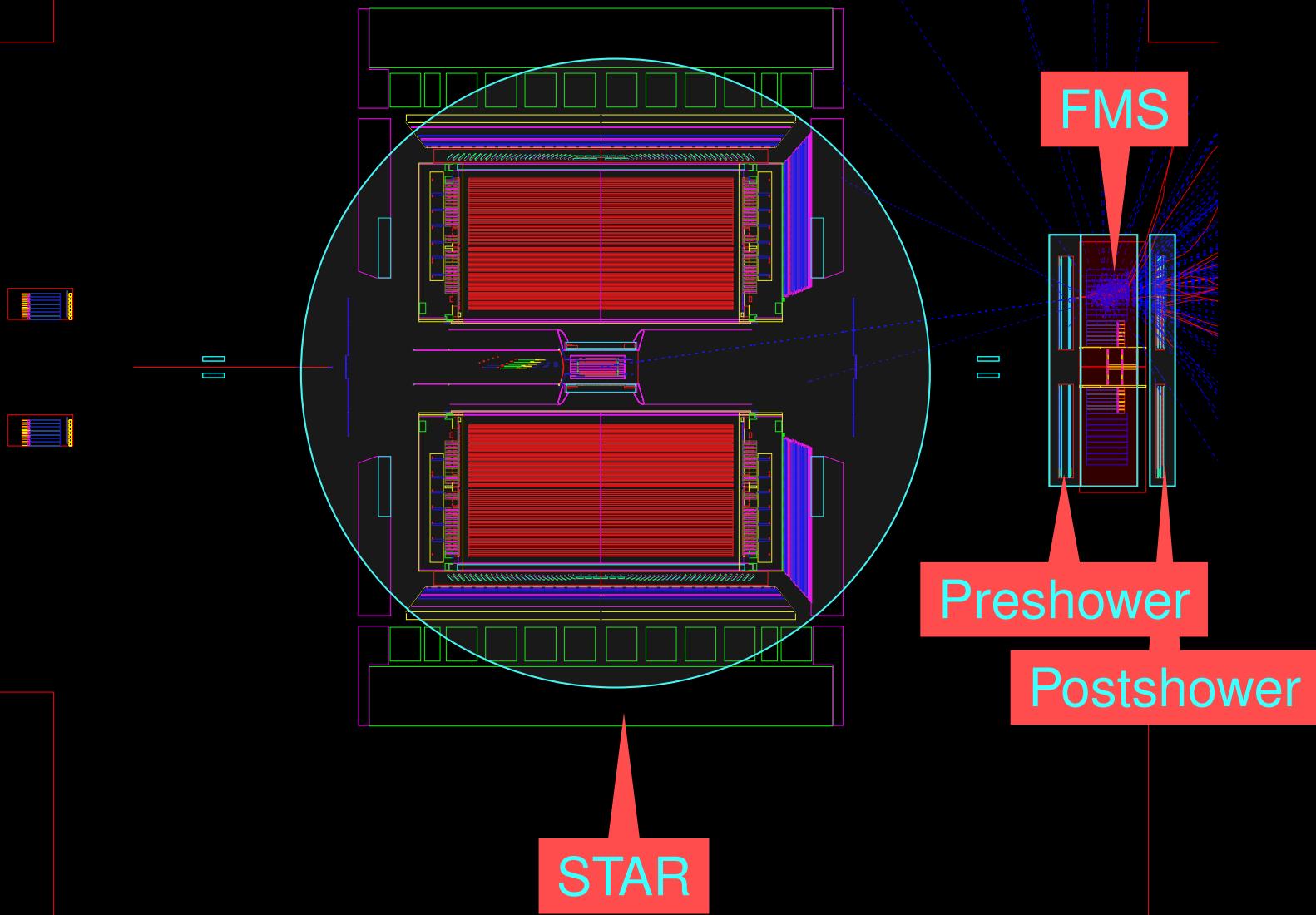
❖ FMS Simulation

❖ Geometry Look

❖ How it works

❖ Correlations

Overall Look



Geometry Look

Self-introduction

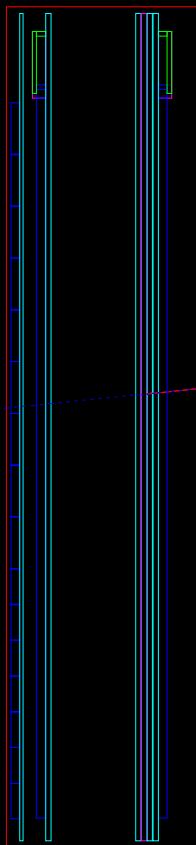
A little intro my work

❖ FMS Simulation

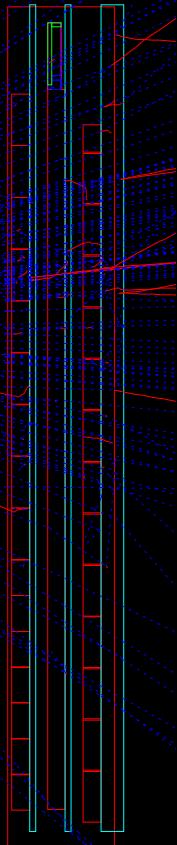
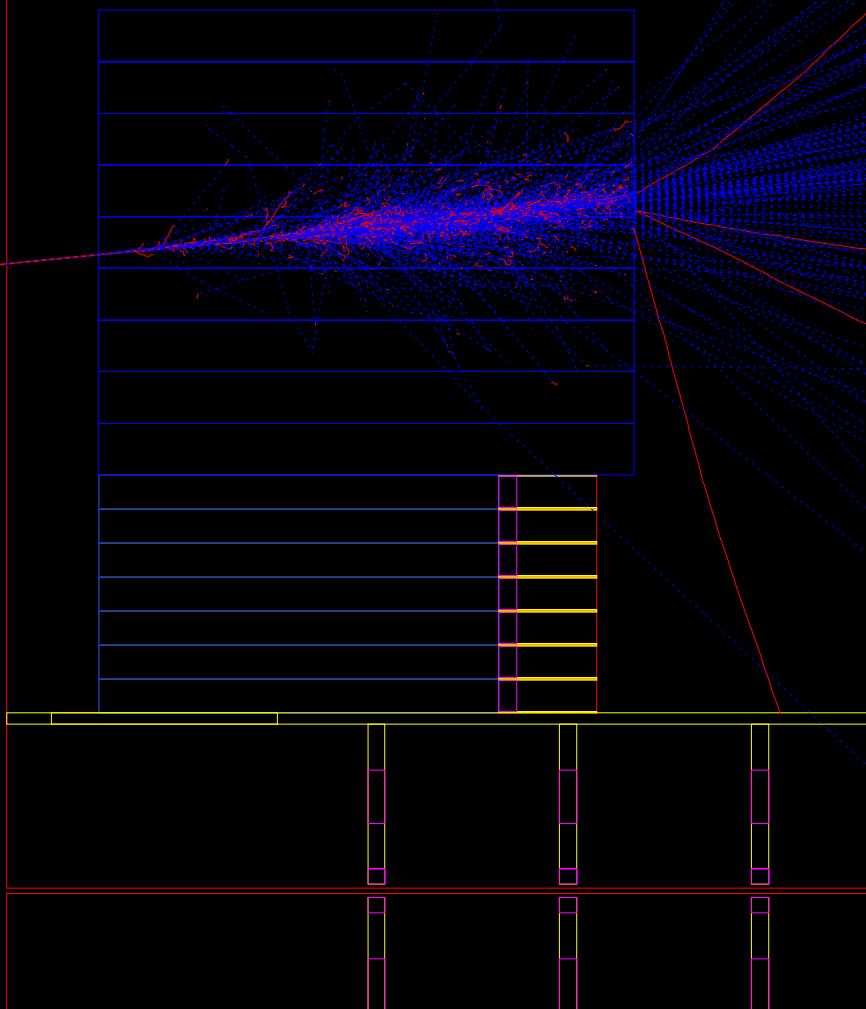
❖ Geometry Look

❖ How it works

❖ Correlations



Close Look



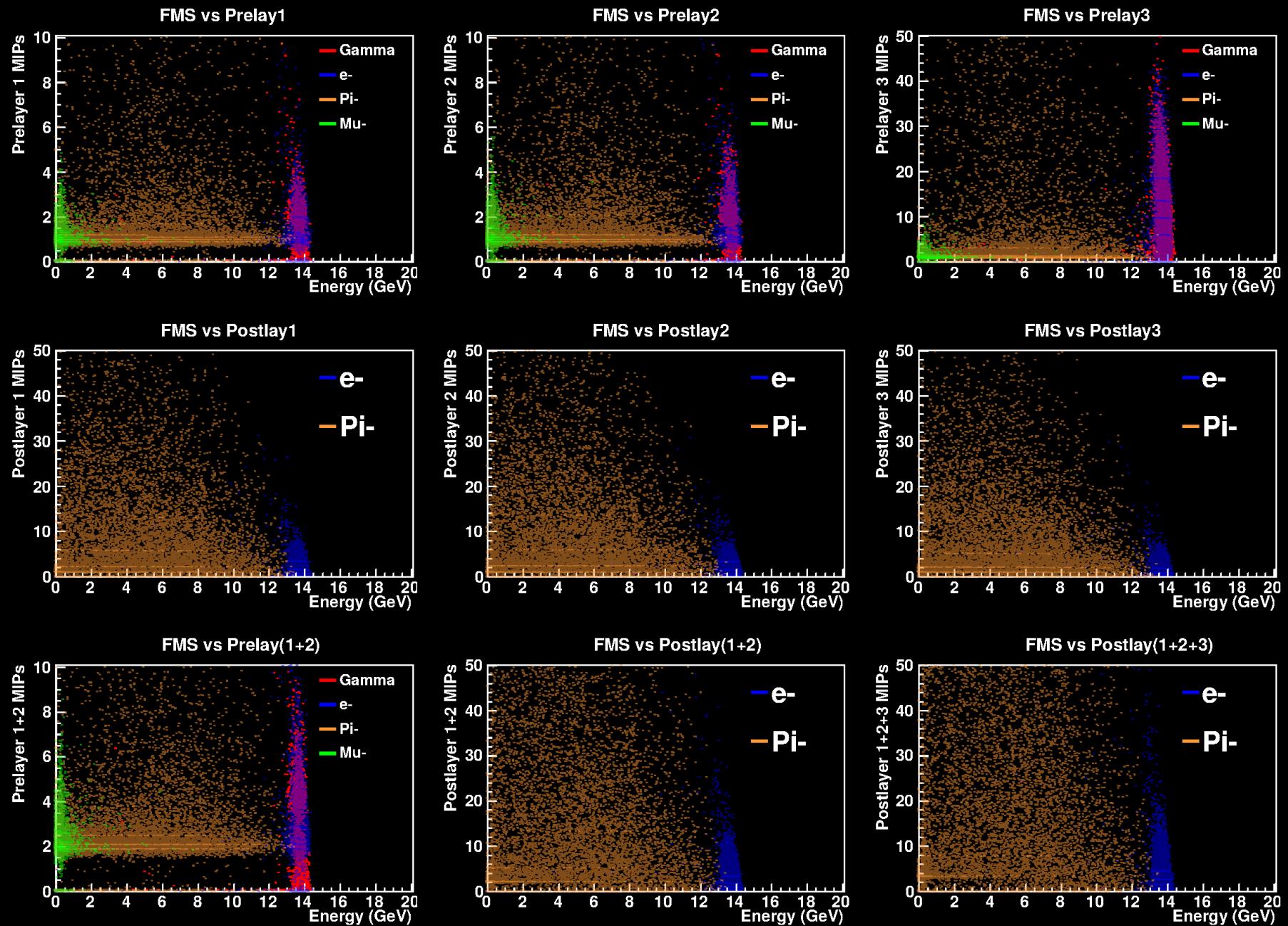
How it works

- 1.6 MeV
- 1.0 GeV
- 3.2 MeV

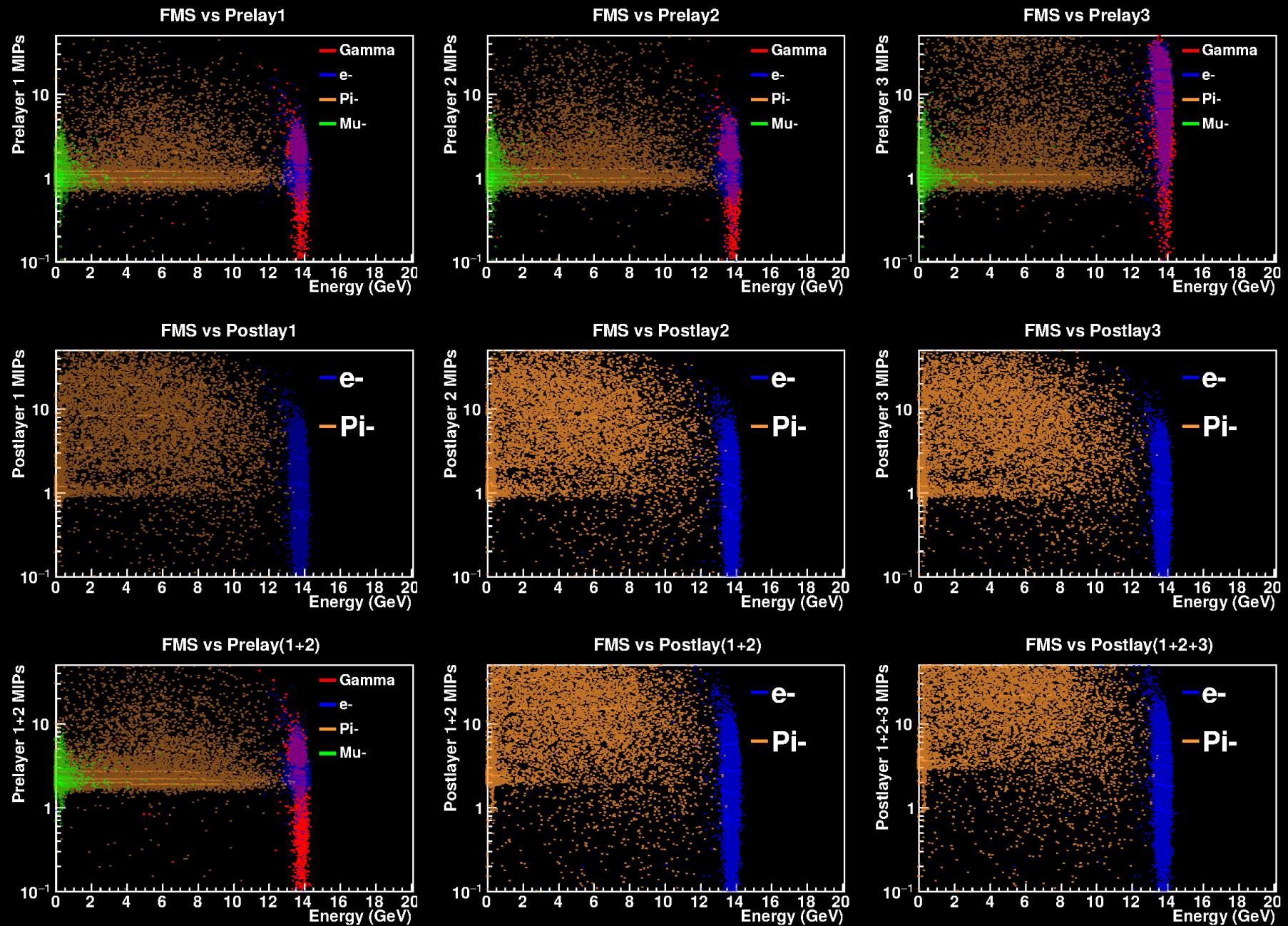
particle	Preshower			FMS	Postshower		
	Layer 1	Layer 2	Layer 3		Layer 1	Layer 2	Layer 3
γ	●	●	●●●●●	●●●●●●●●●●	●●	●●	●●
e^-	●●	●●	●●●●●●●●●●	●●●●●●●●●●	●●	●●	●●
π^-	●●	●●●●	●●●●●●●●●●	●●●●●●●●●●	●●●●●●●●●●	●●●●●●●●●●	●●●●●●●●●●
μ^-	●●	●●	●●	●	●●	●●	●●

Table 1: Energy deposited in different detectors for different particles

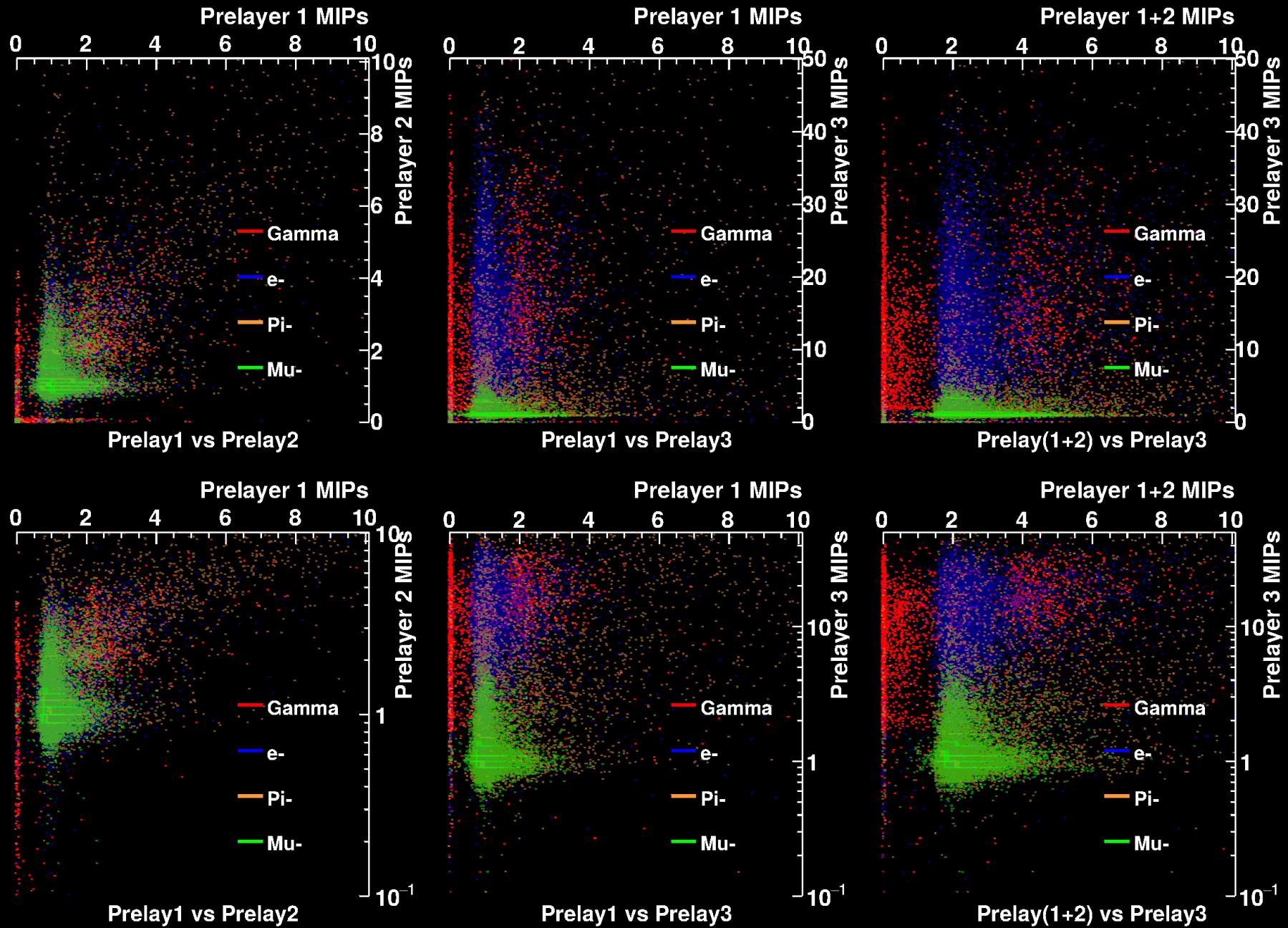
Correlations



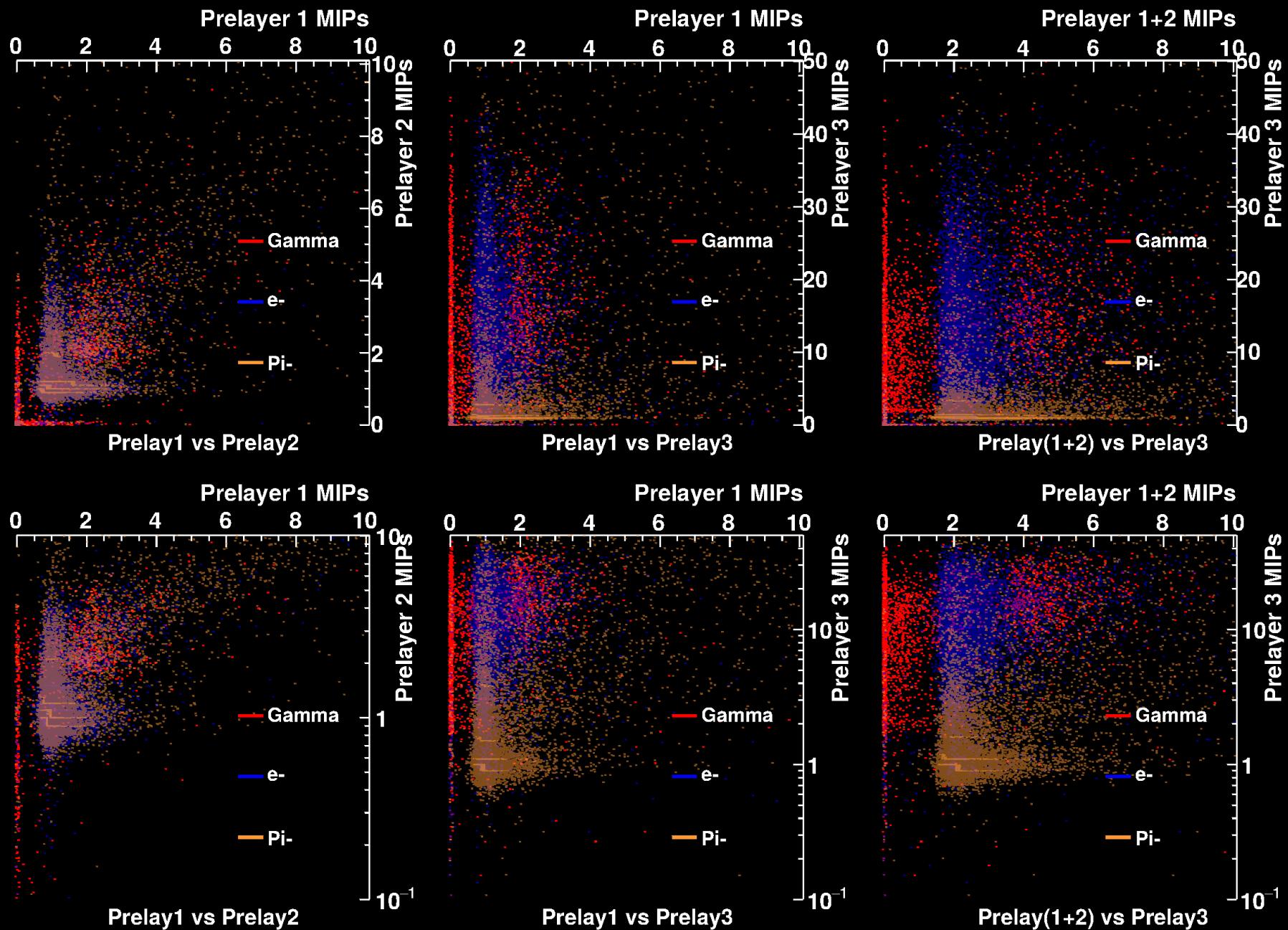
Correlations



Correlations



Correlations



Correlations

