

Cosmic Rays

p^+

Protons

π^-

π^+

π^+

Pions

$\bar{\nu}_\mu$

μ^-

μ^+

ν_μ

μ^+

ν_μ

(Anti)Muons

(Anti)Muon Neutrinos

$\bar{\nu}_\mu$

$\bar{\nu}_e$

e^-

μ^+

ν_μ

e^+

ν_e

ν_μ

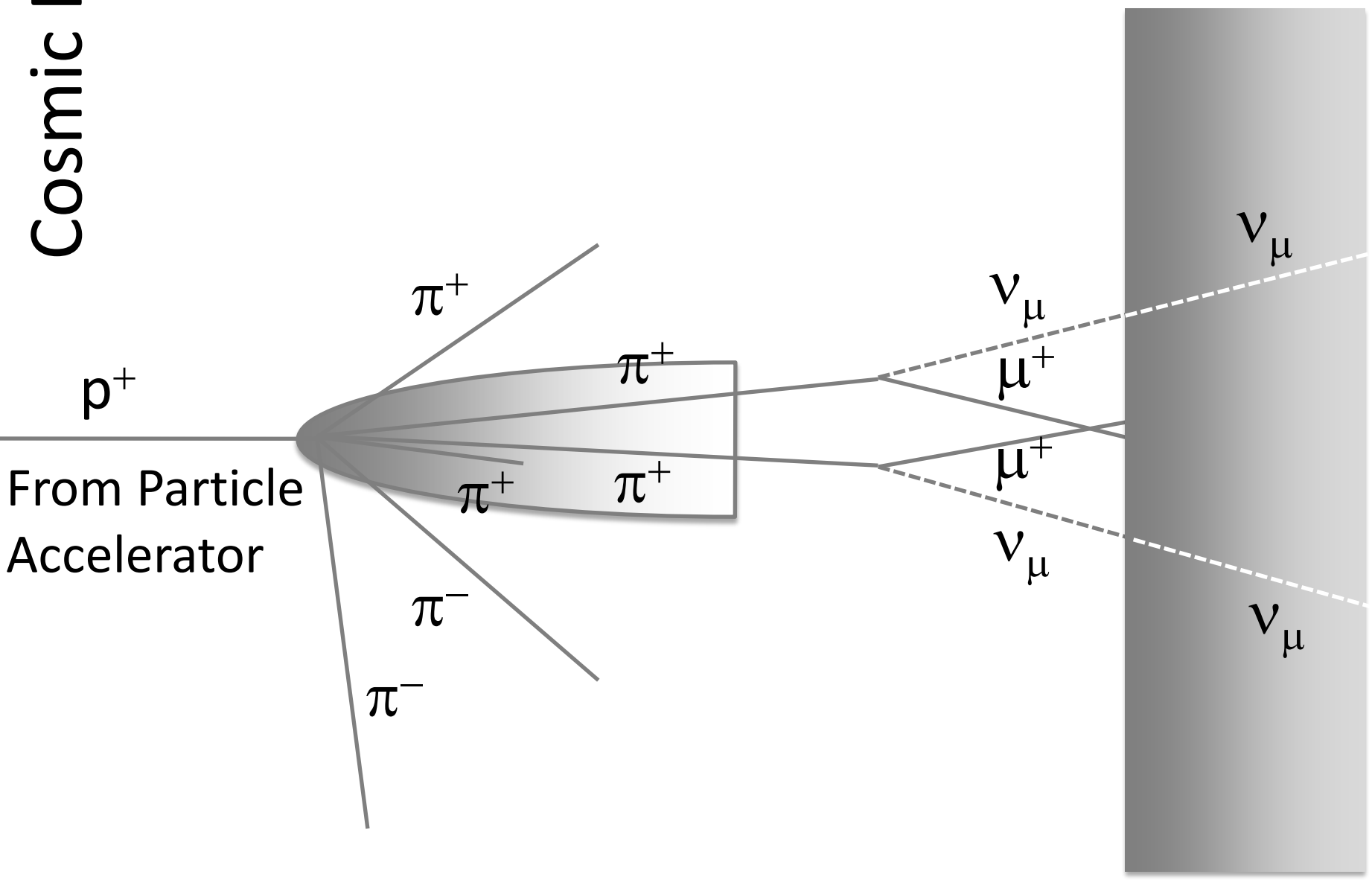
(Anti)Muons

(Anti)Muon Neutrinos

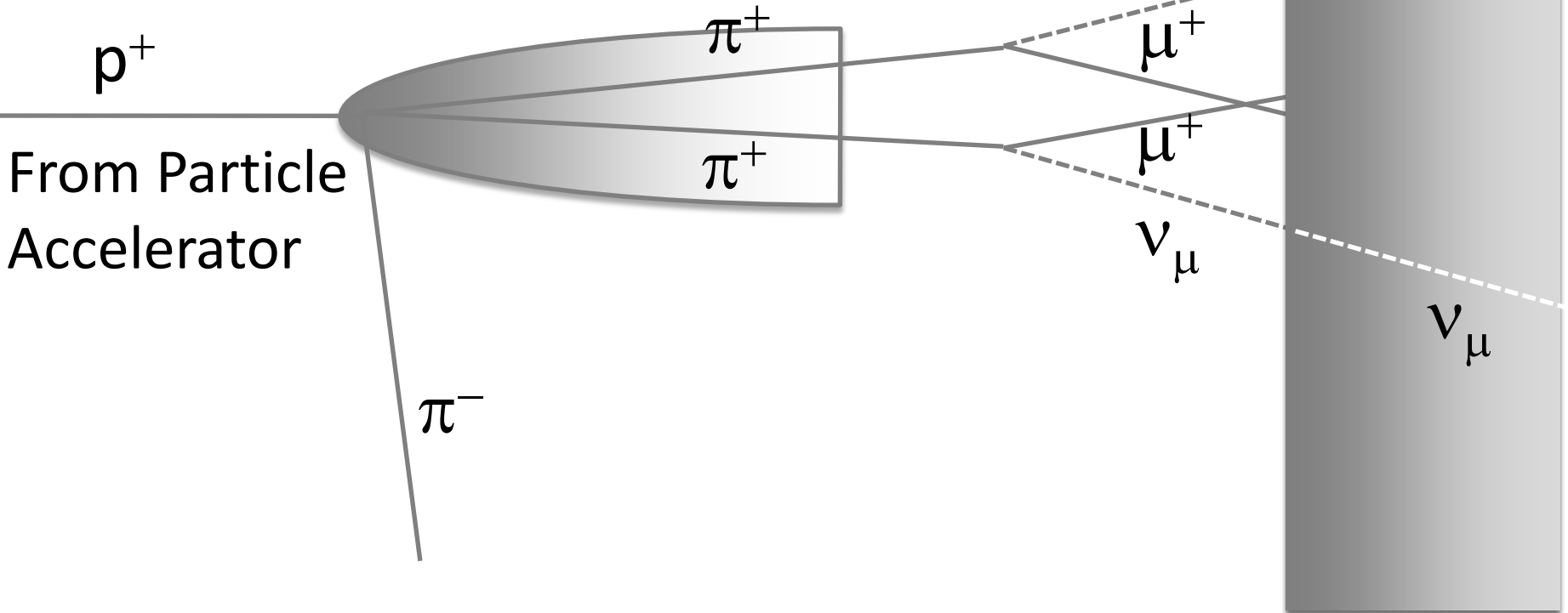
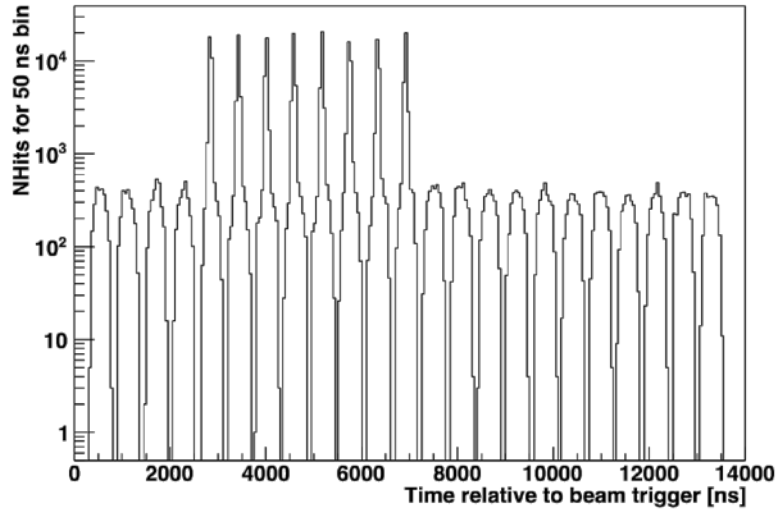
(Anti)Electrons

(Anti)Electron Neutrinos

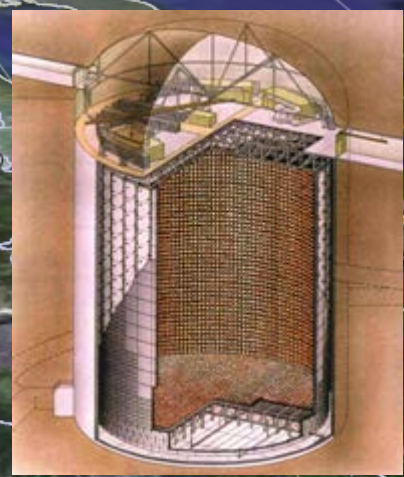
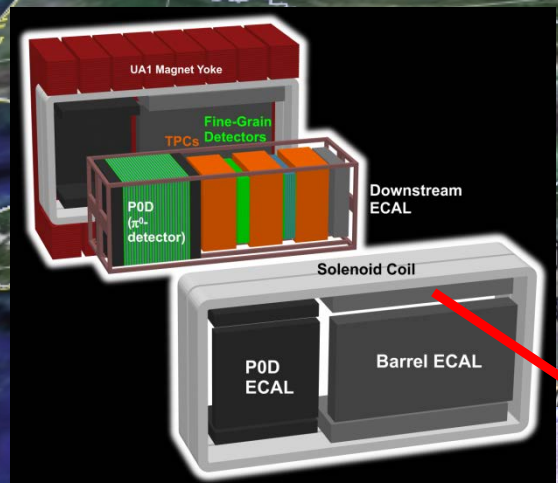
Cosmic Rays = Experiment



Experiment: T2K



Experiment: Tokai to Kamioka (T2K)



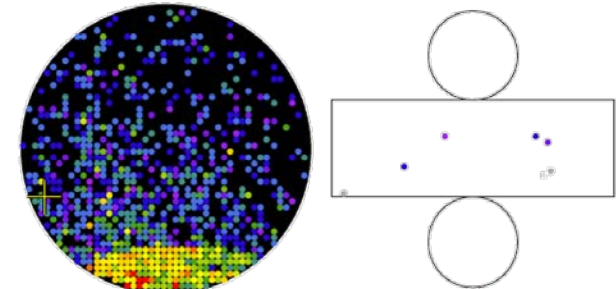
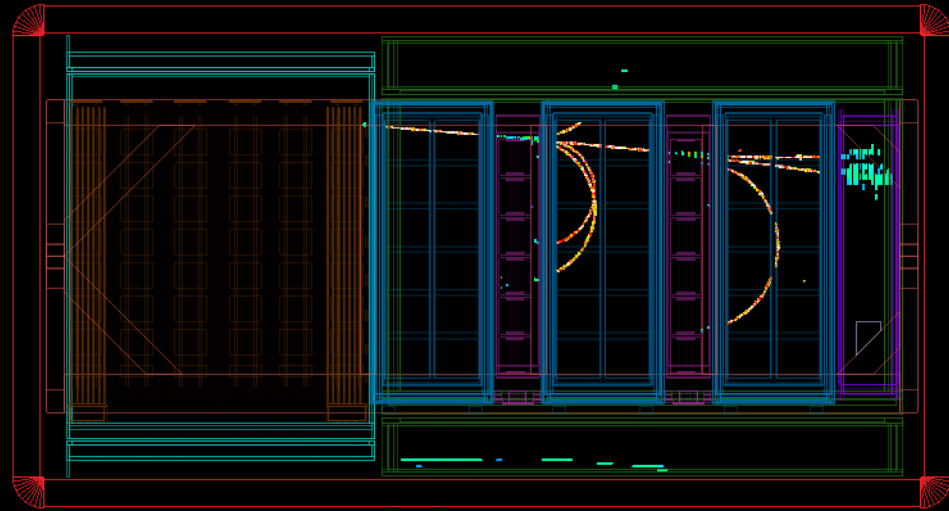
295 km



T2K Is Back...

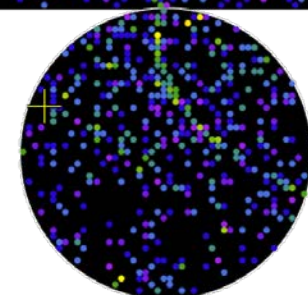
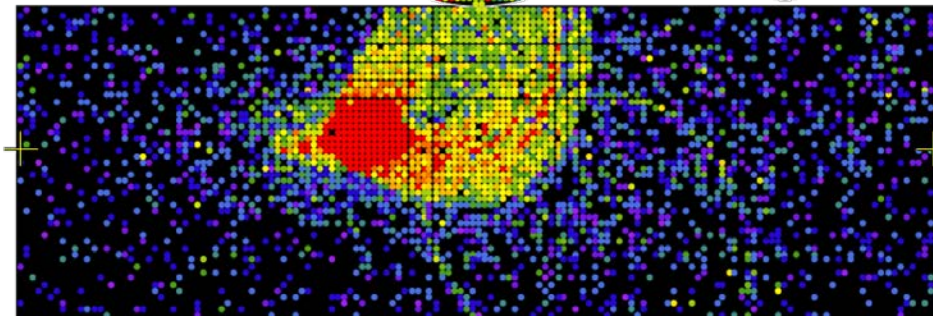
Event number : 27404 | Run number : 8115 | Spill : 51004 | Time : Mon 2012-01-23 06:04:28 JST | Trigger: Beam Spill

Near Detector 23rd Jan 2012!



Charge (pe)

- >26.7
- 23.3-26.7
- 20.2-23.3
- 17.3-20.2
- 14.7-17.3
- 12.2-14.7
- 10.0-12.2
- 8.0-10.0
- 6.2- 8.0
- 4.7- 6.2
- 3.3- 4.7
- 2.2- 3.3
- 1.3- 2.2
- 0.7- 1.3
- 0.2- 0.7
- < 0.2



Super-Kamiokande 26rd Jan 2012!

The Standard Model x2

