Pseudo efficiencies 2016 P09 MC

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**Coral weekly meeting**
23.10.20

Introduction

- A test sample of 2016P09 MC with corrected PMM was produced: /eos/user/a/agridin/MC2016/2016P09_mu+_PMM/mDST/

- Selection criteria (the UserEvent from Jan Matousek) was used:
  — the best primary vertex in the target,
  — physics triggers (LT | MT | OT | LAST),
  — scattered muon found (iMuPrim(false,true,true,false,15)),
  — $Q^2 > 1 \ (GeV/c)^2$
  — all tracks from the PV with $\chi^2/ndf > 5$

- I also put pseudoEffs for the planes where problems were observed by Jan

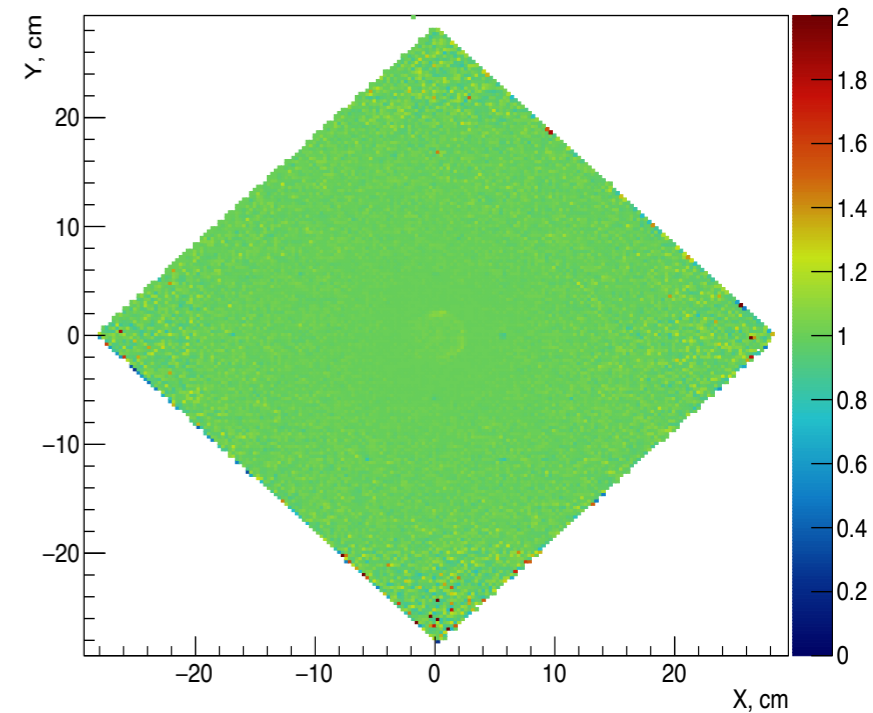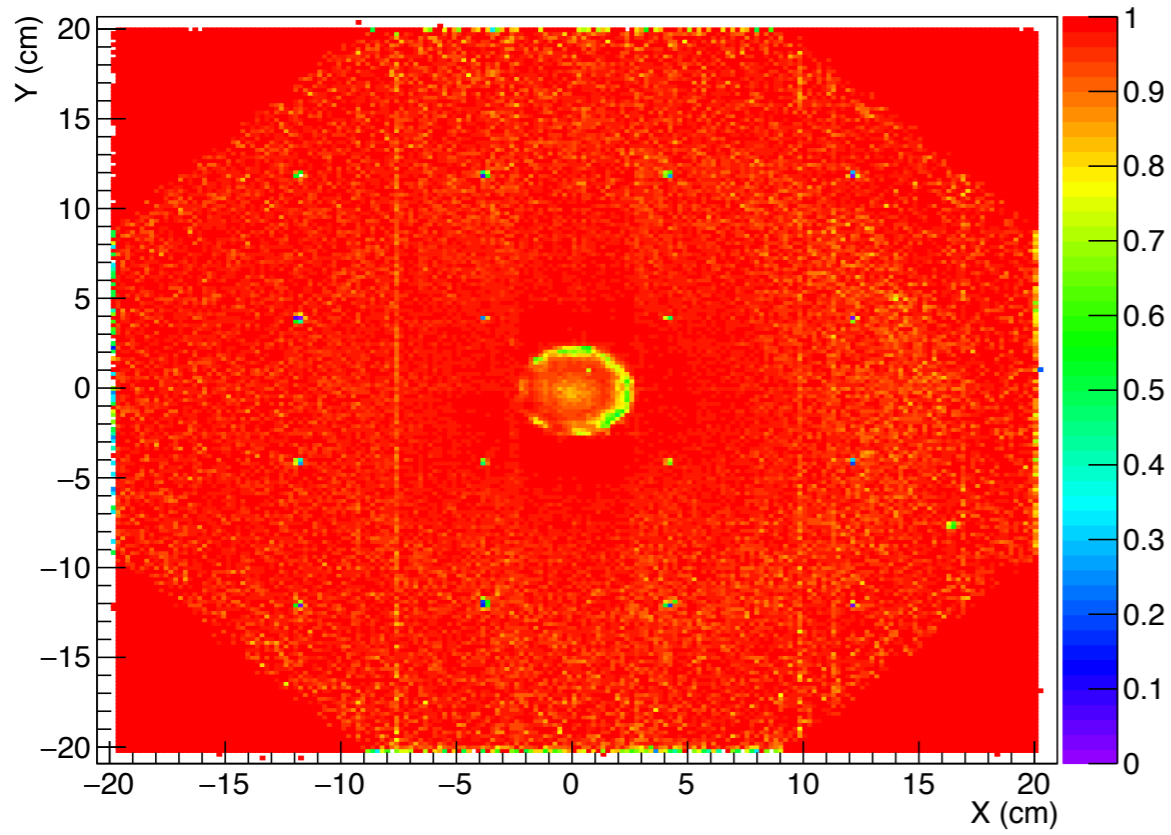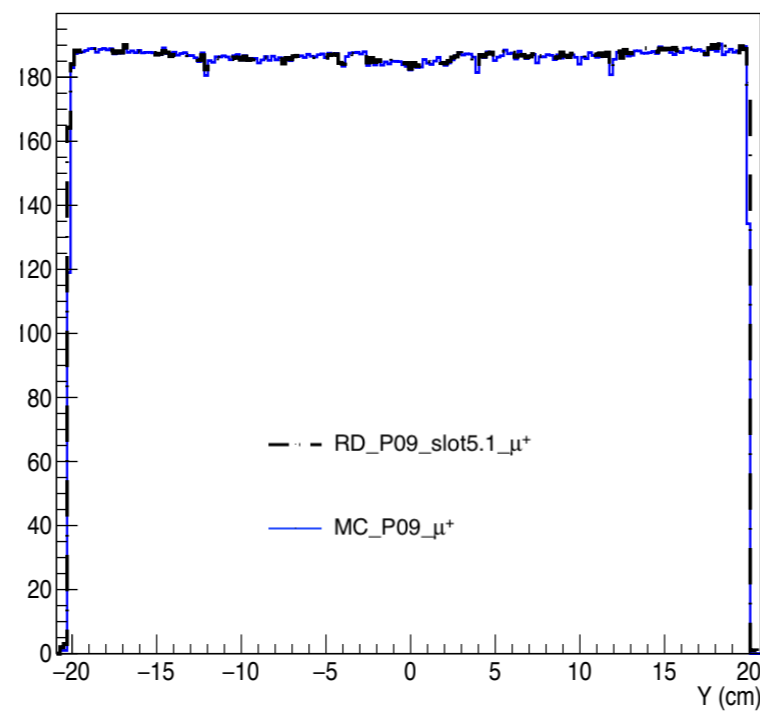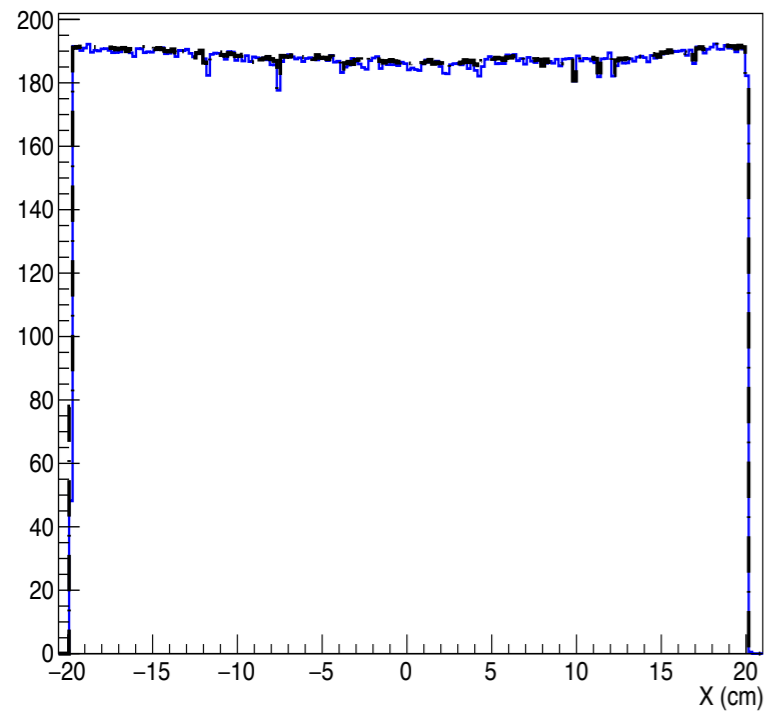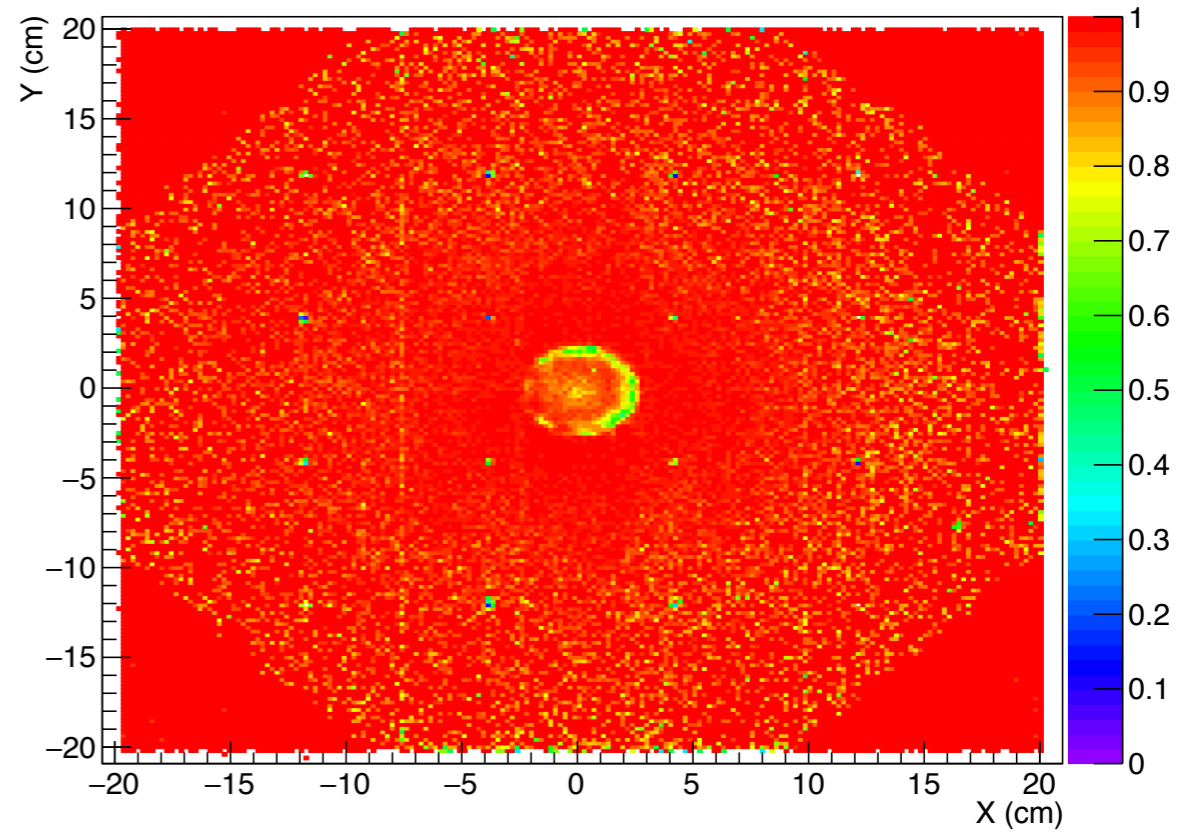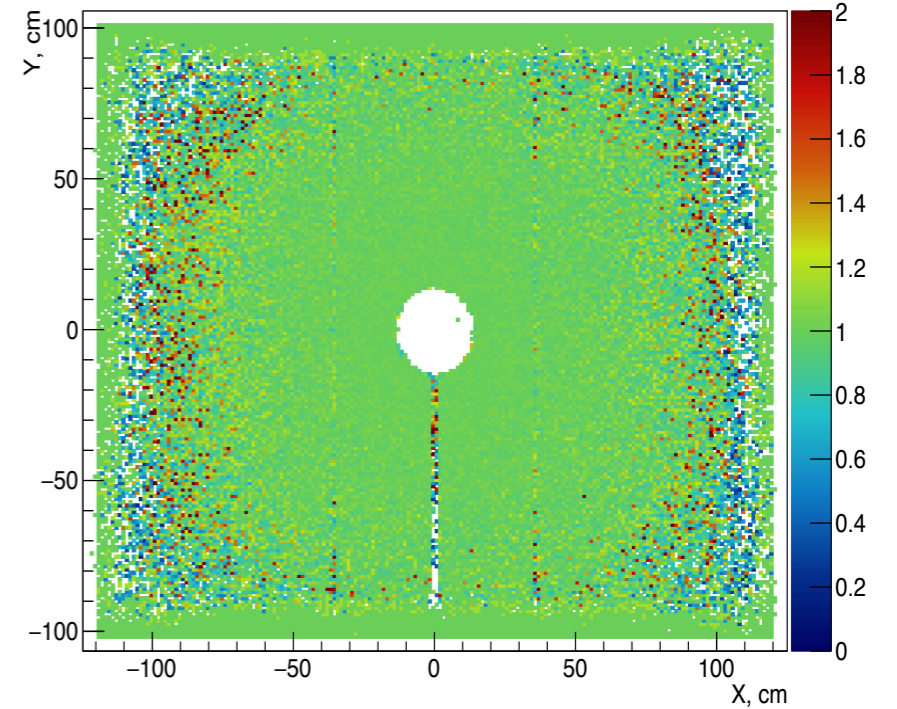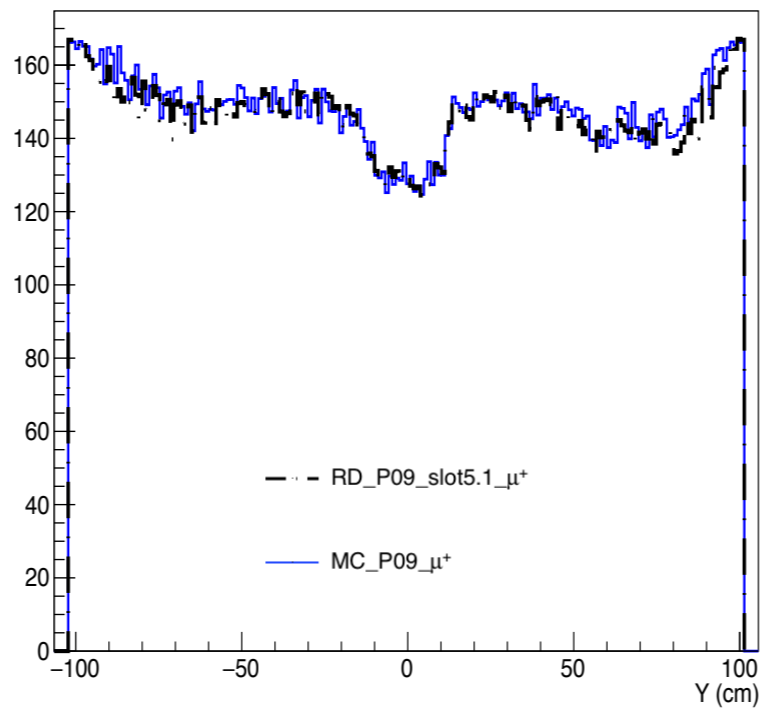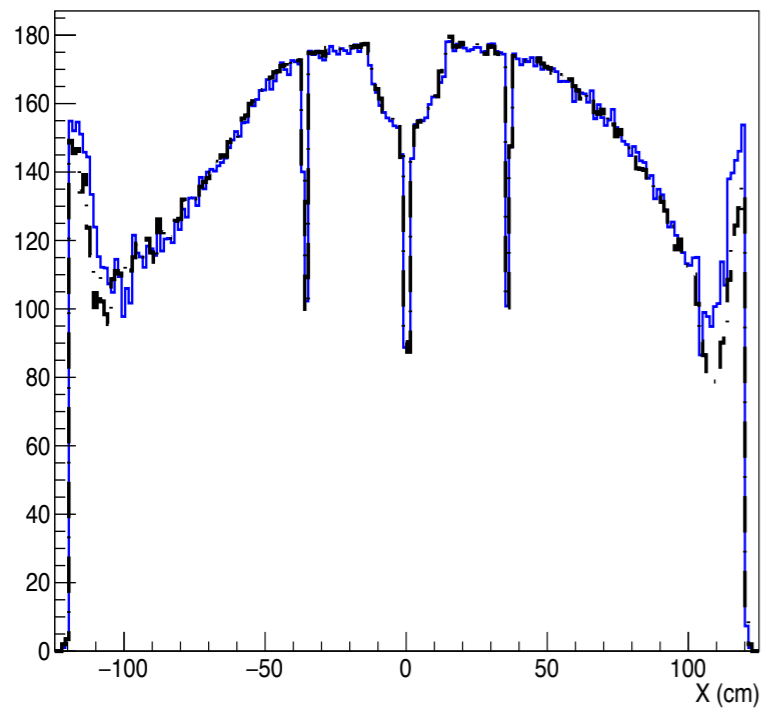# MP01MU-U1

RD

MC
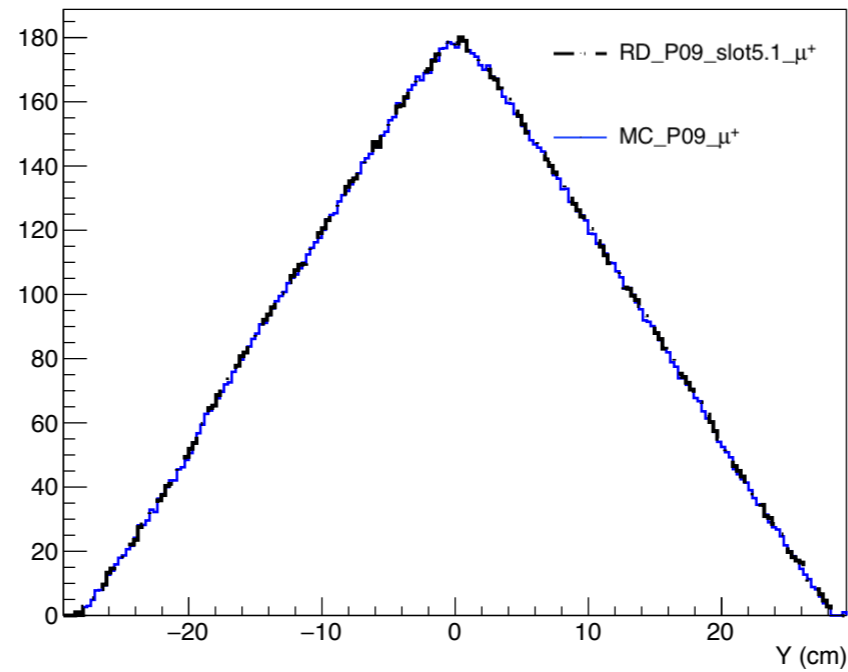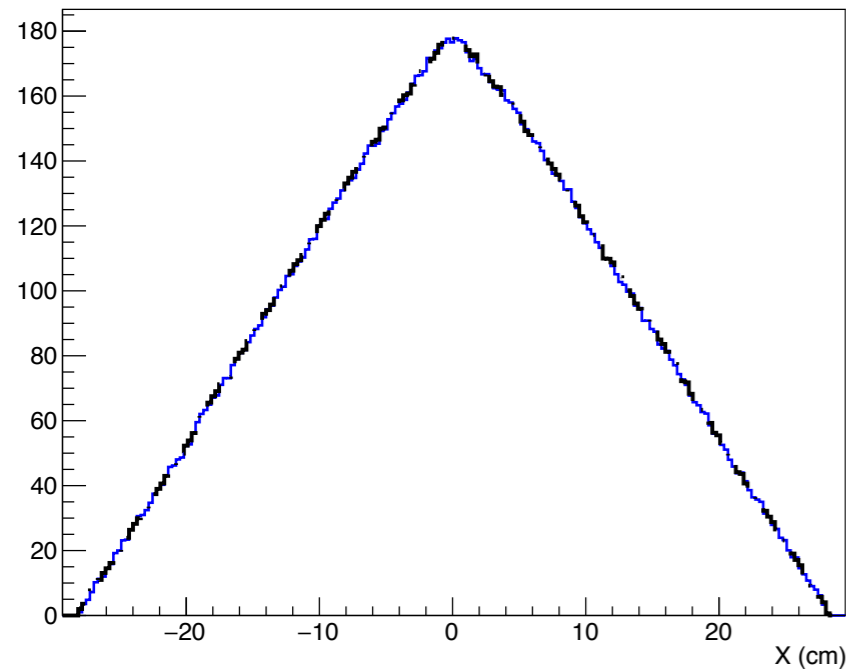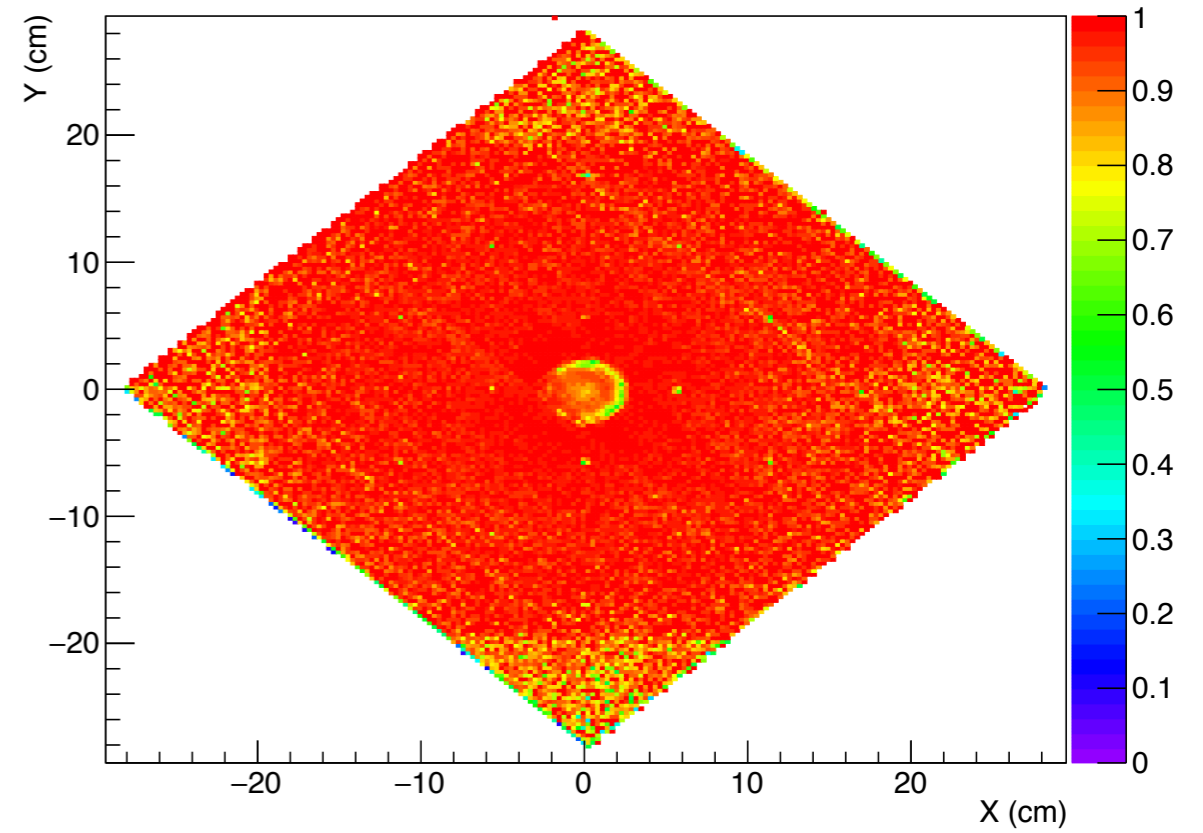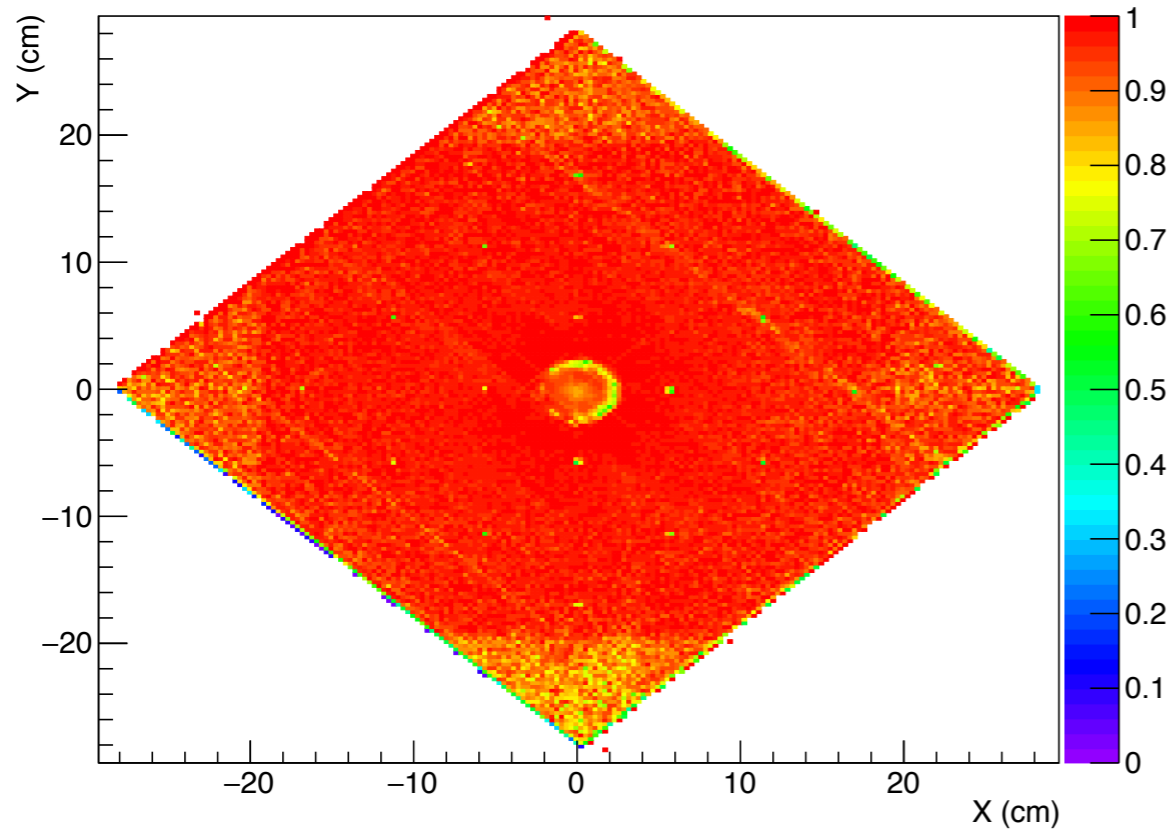
The central part is seen in MC
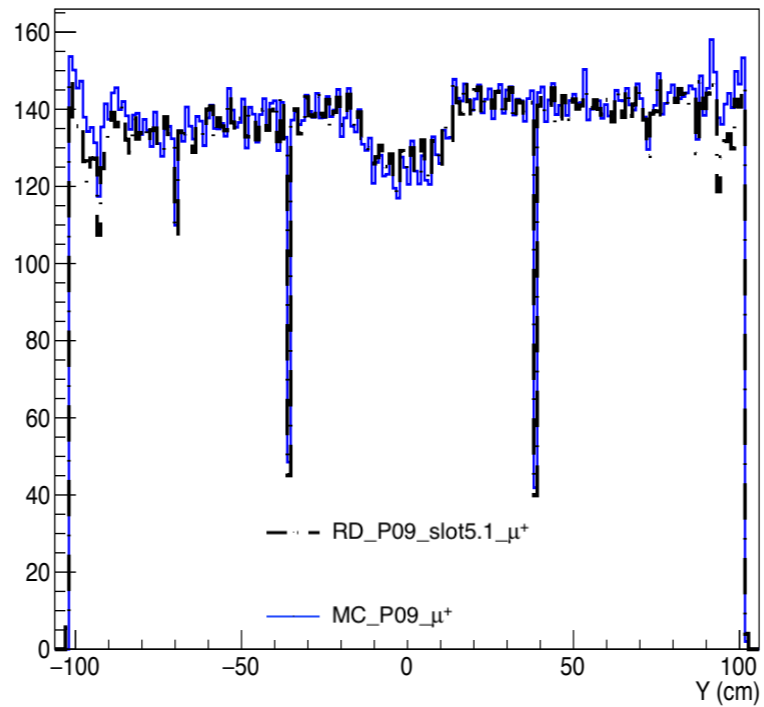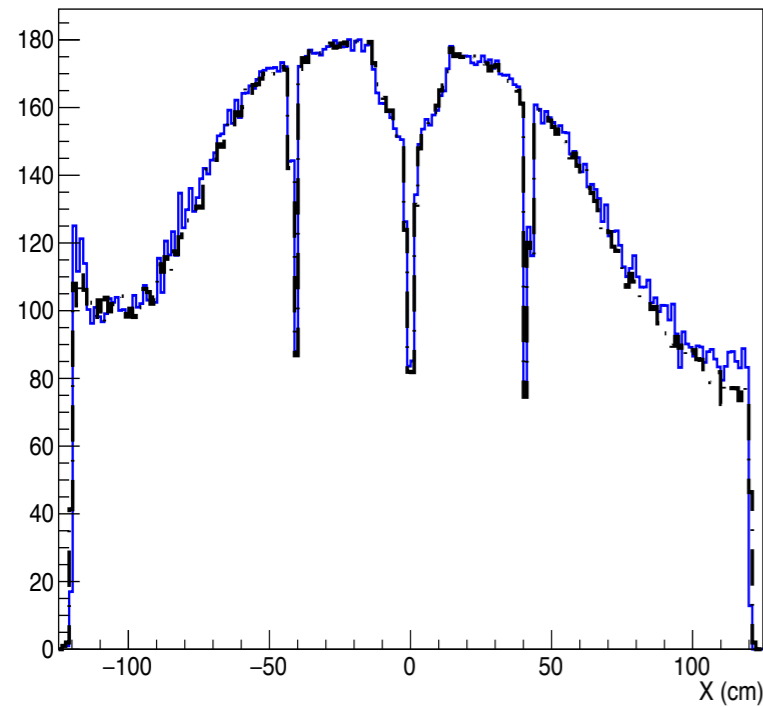
MP01MX-X1

RD

MC

RD/MC ratio

RD_P09_slot5.1_μ⁺
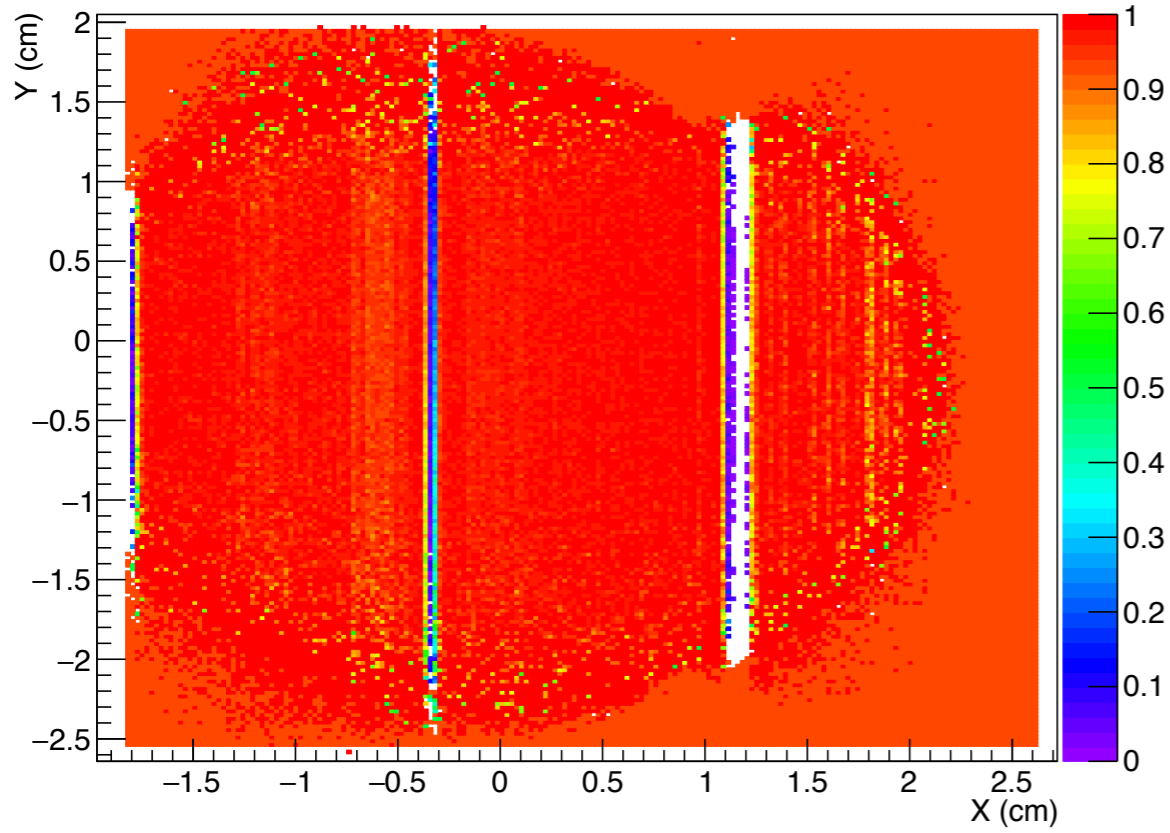
MC_P09_μ⁺
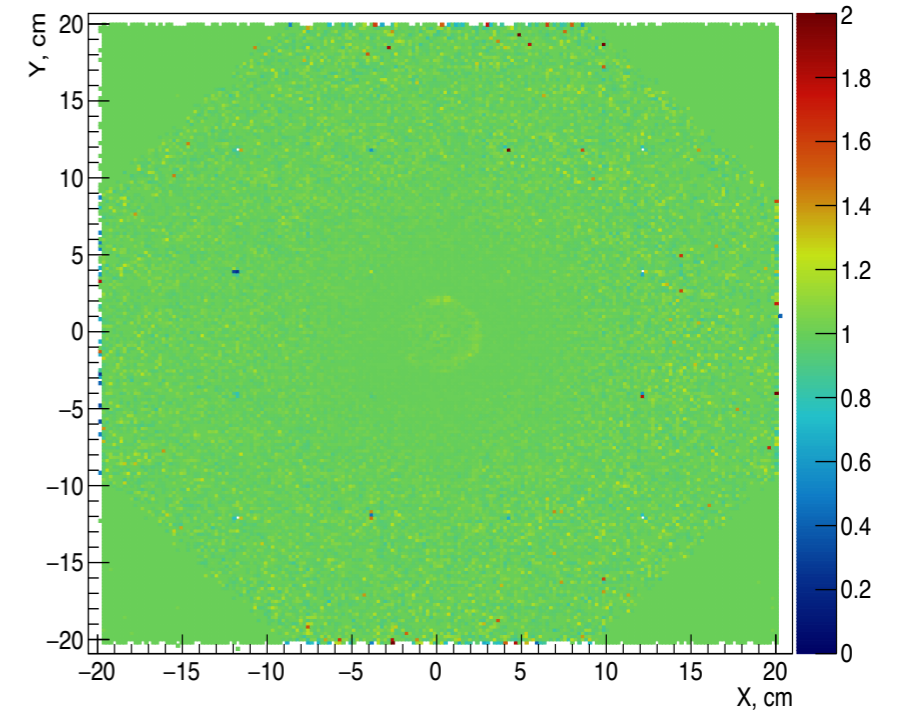
DC04Y1
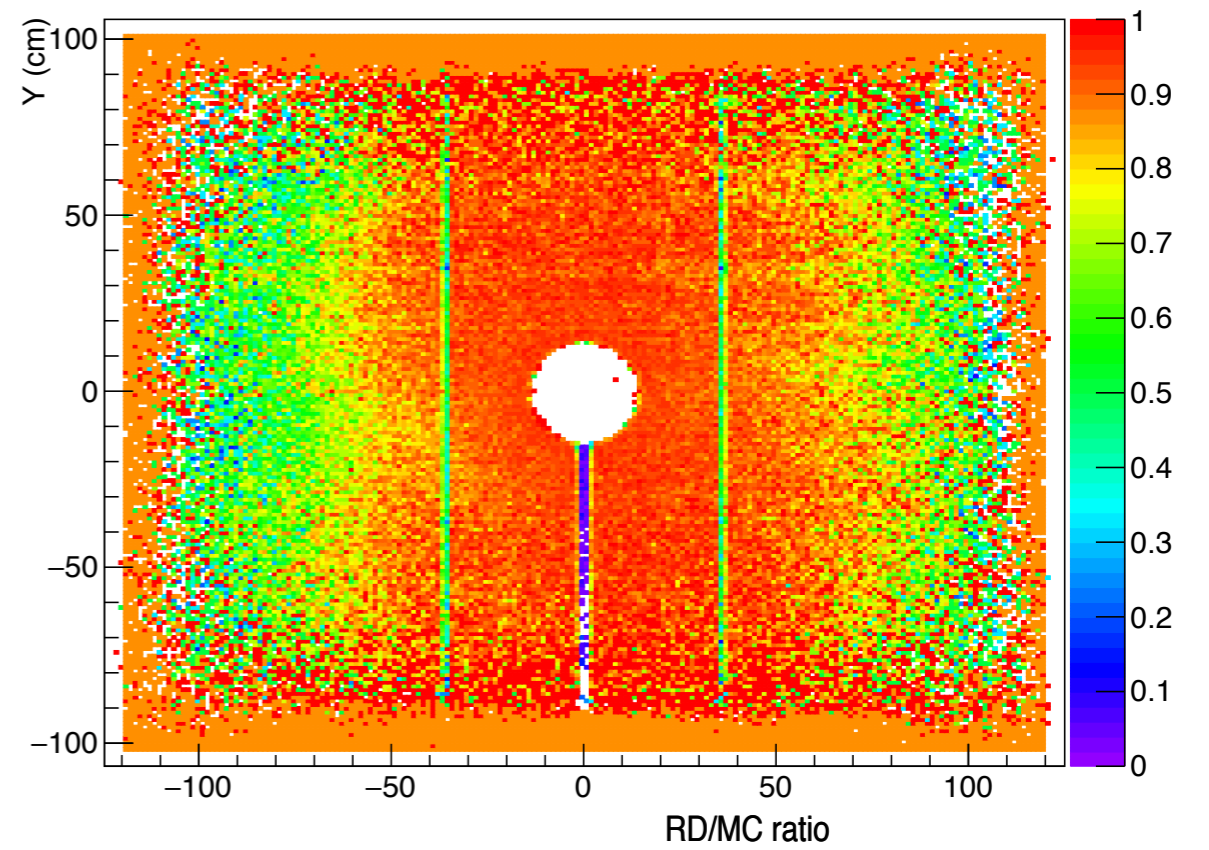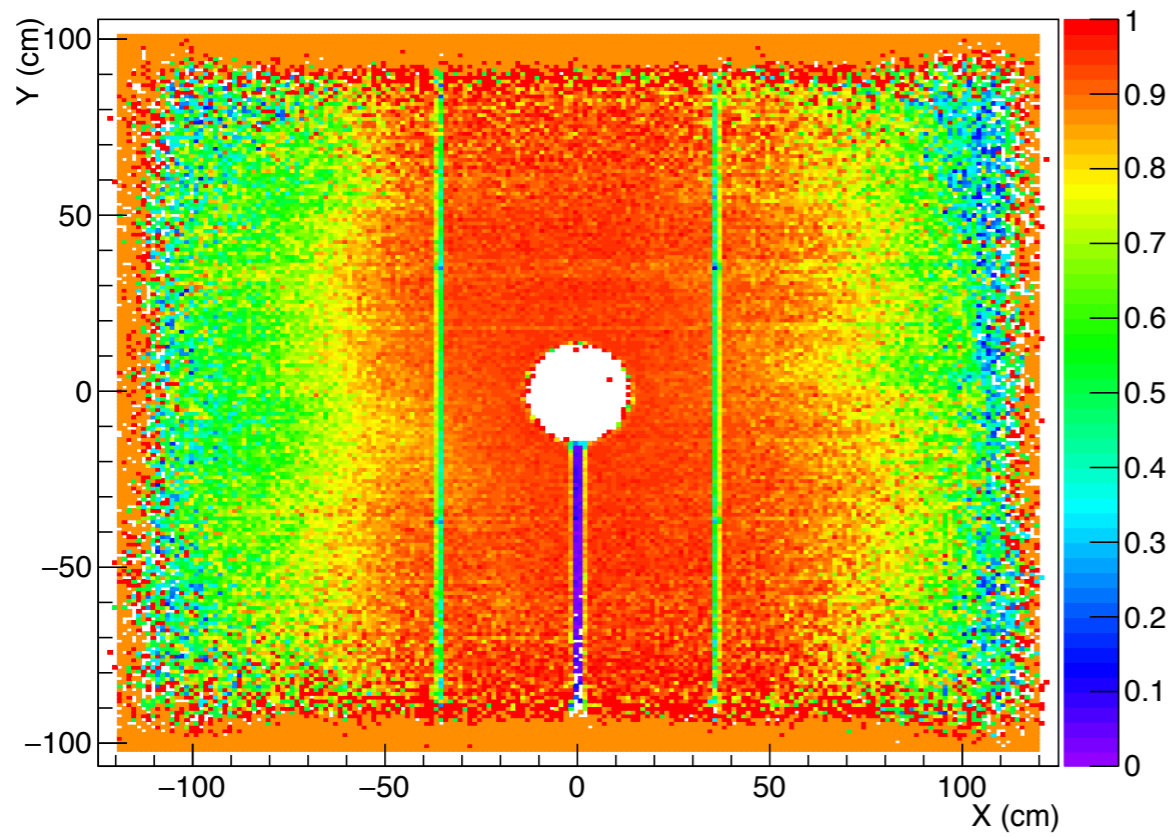
All effects are reproduced.

DC05Y1

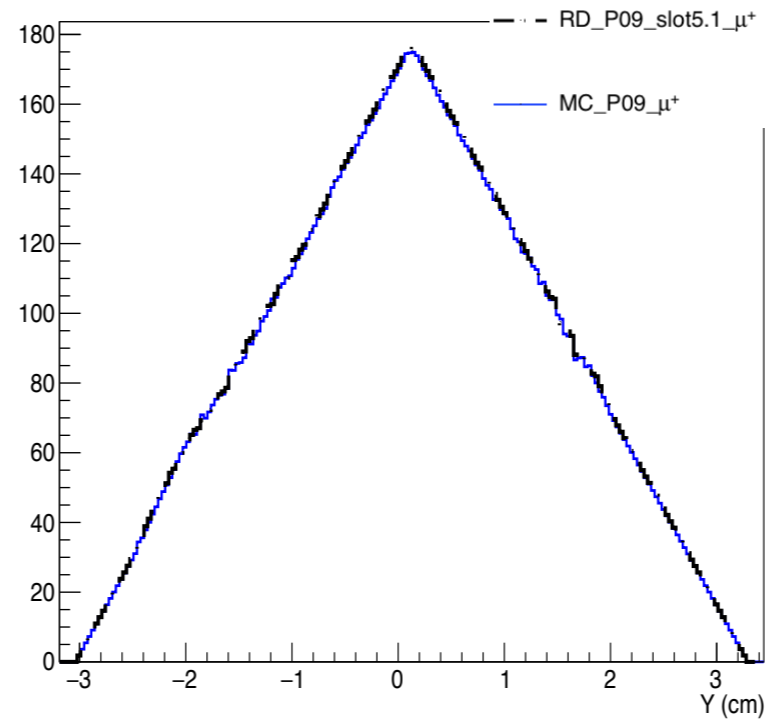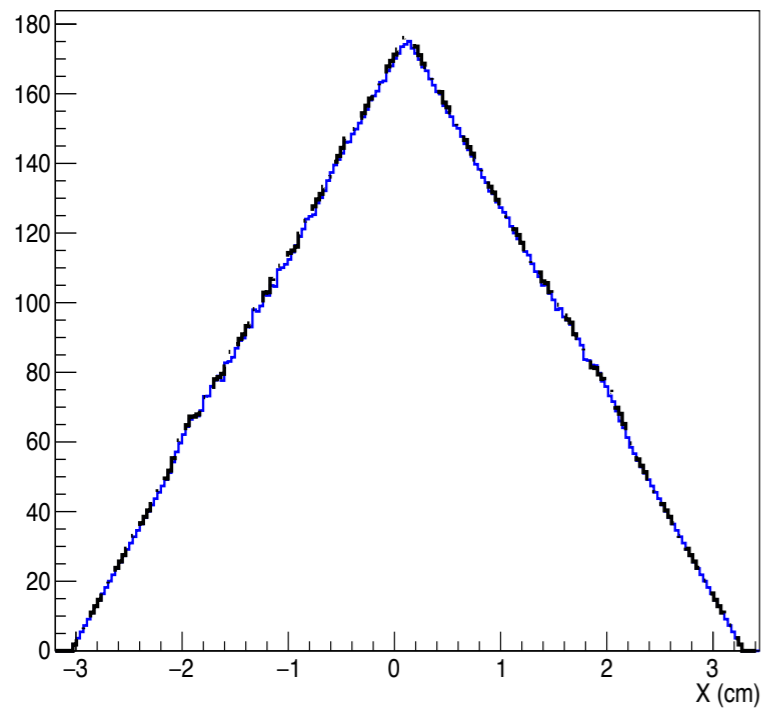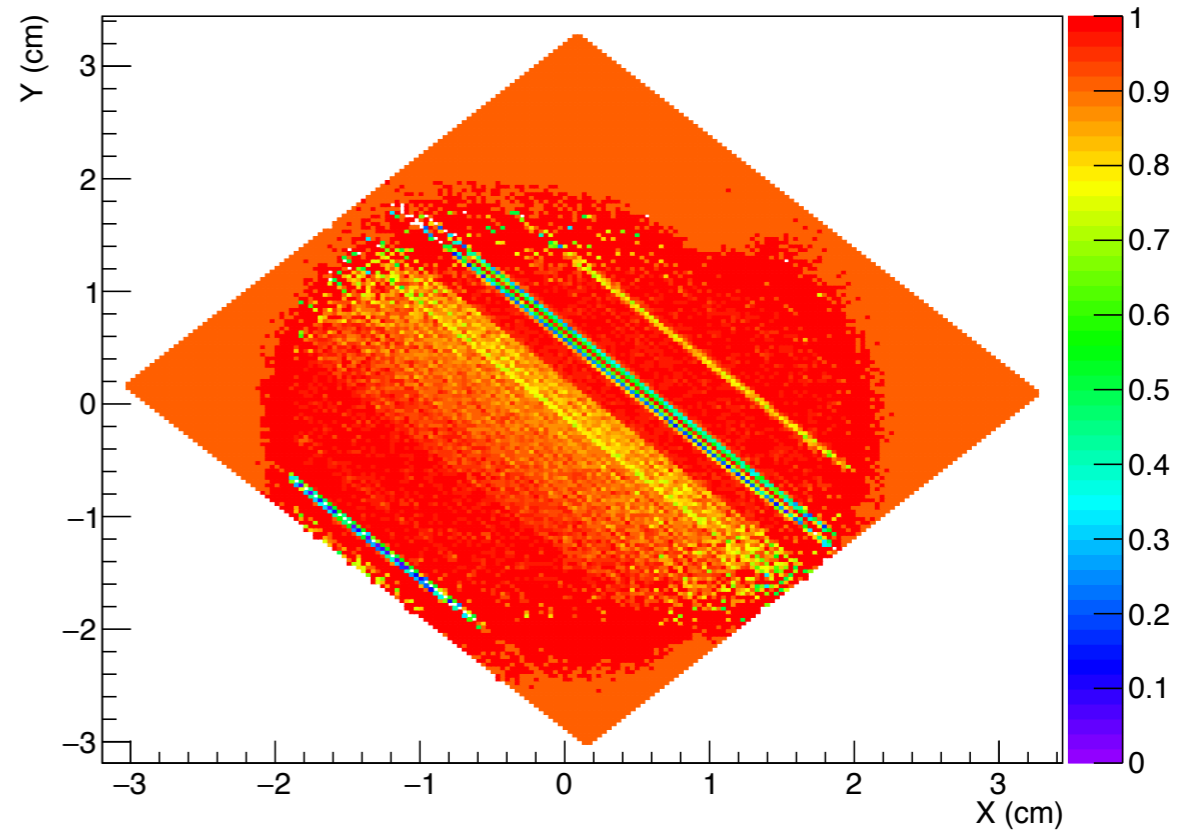RD/MC ratio
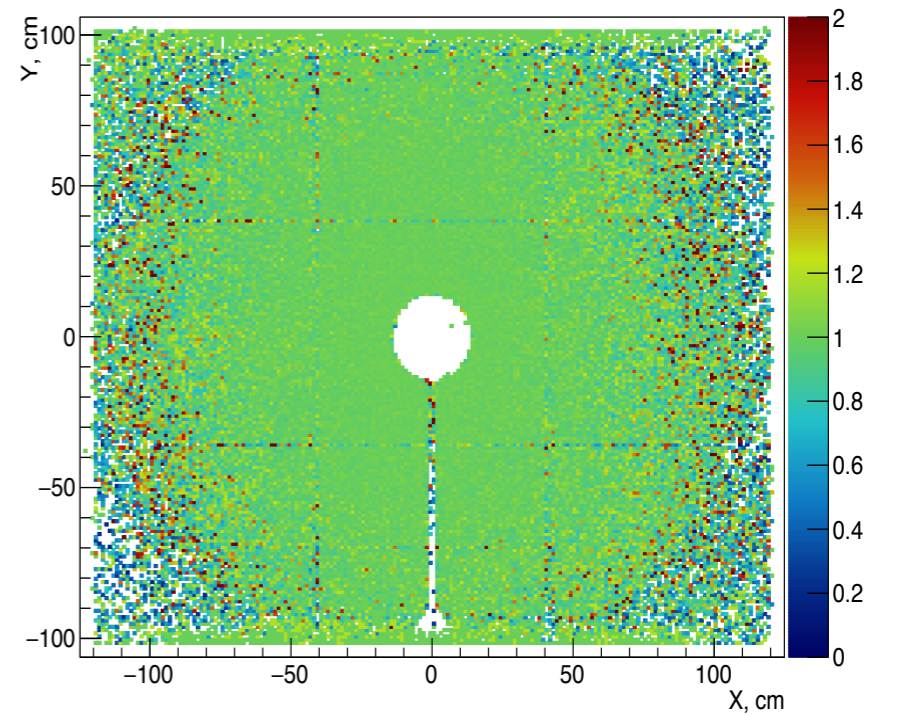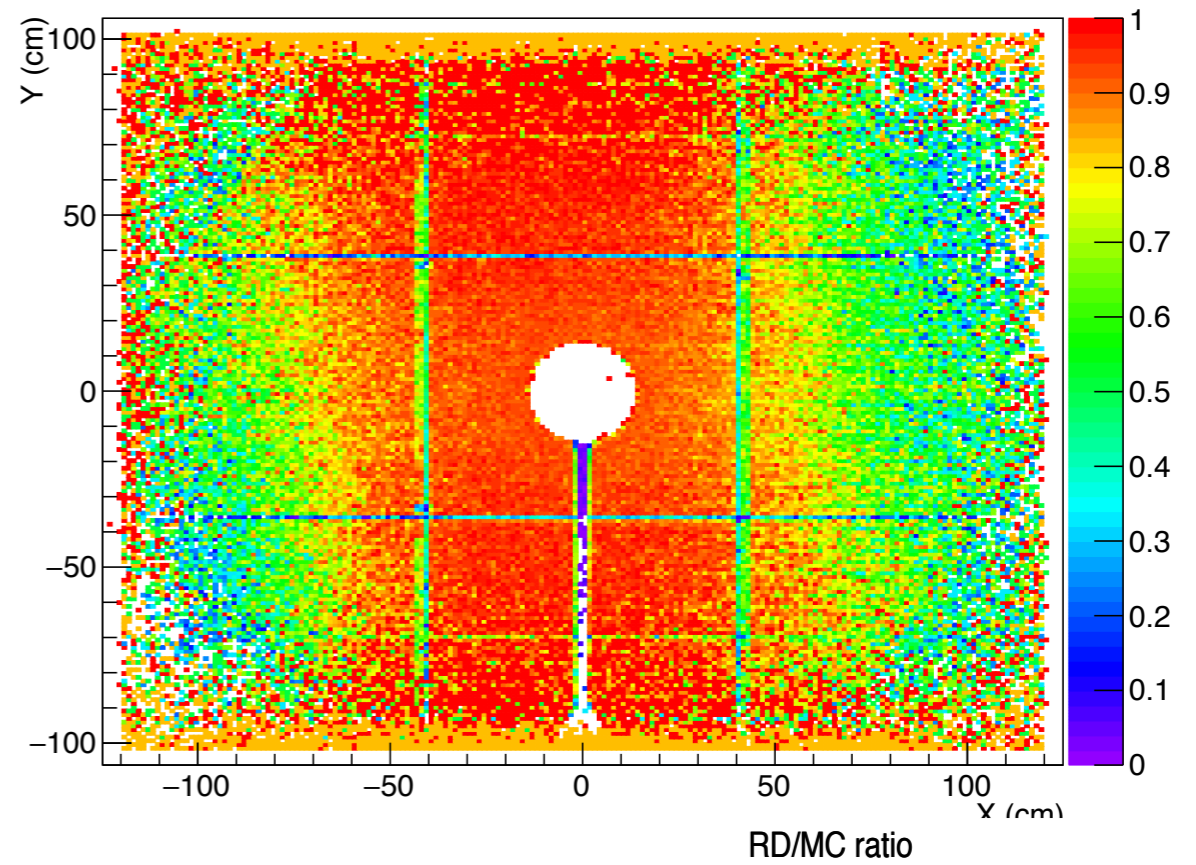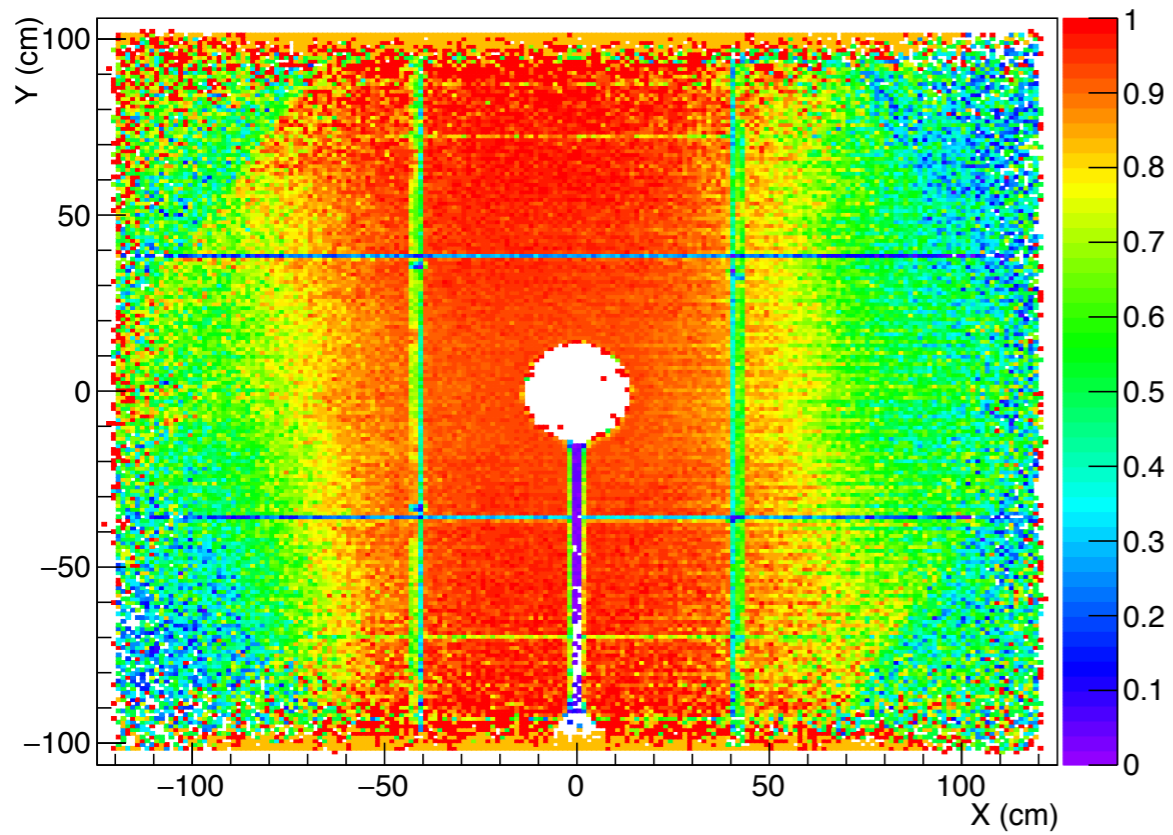
All effects are reproduced.
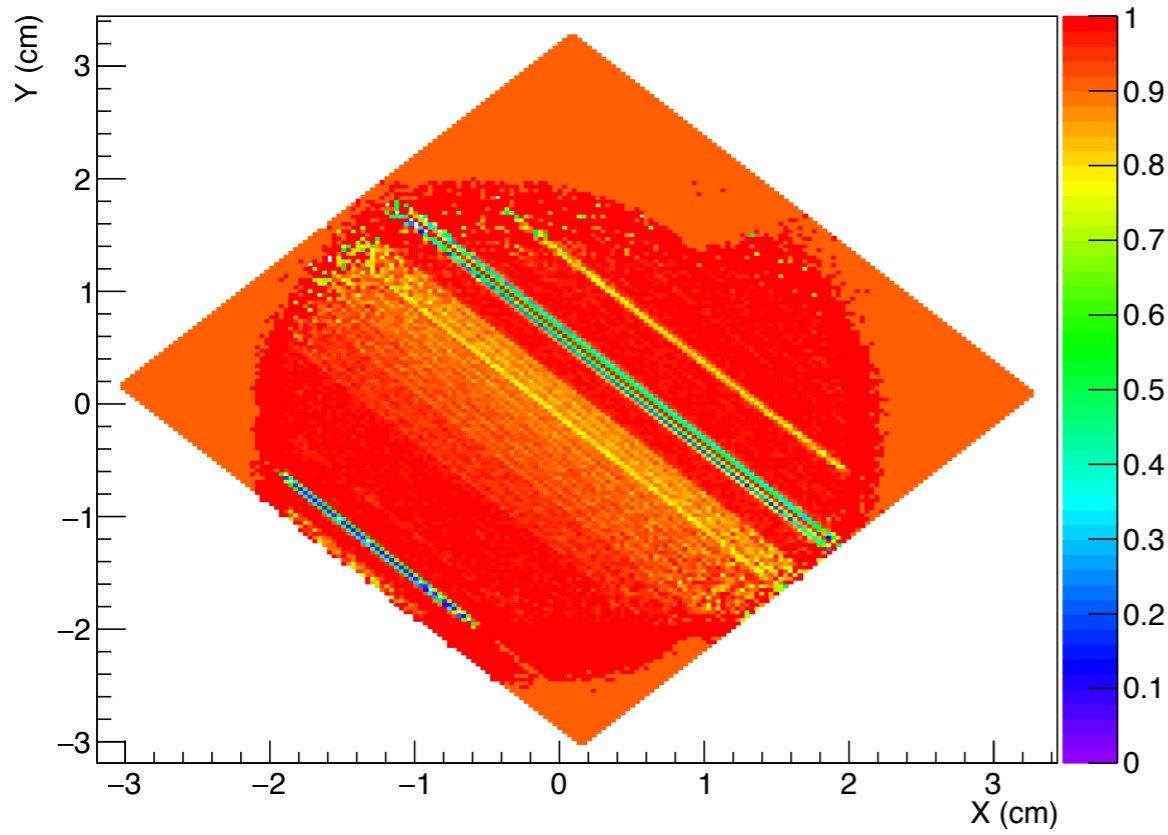
FI15X1

RD/MC ratio

RD_P09_slot5.1_μ⁺
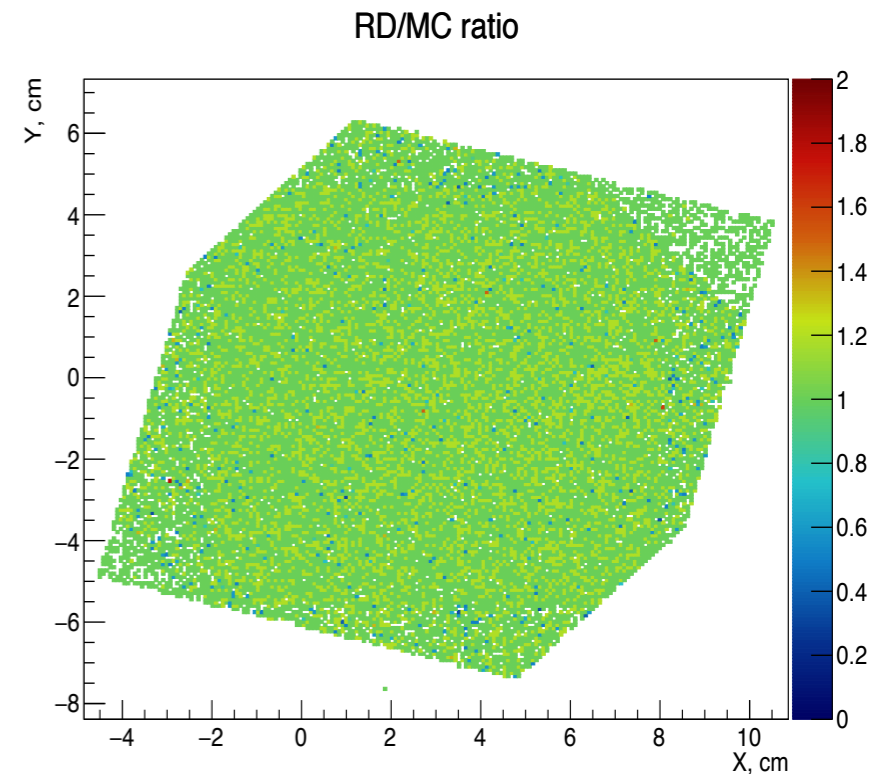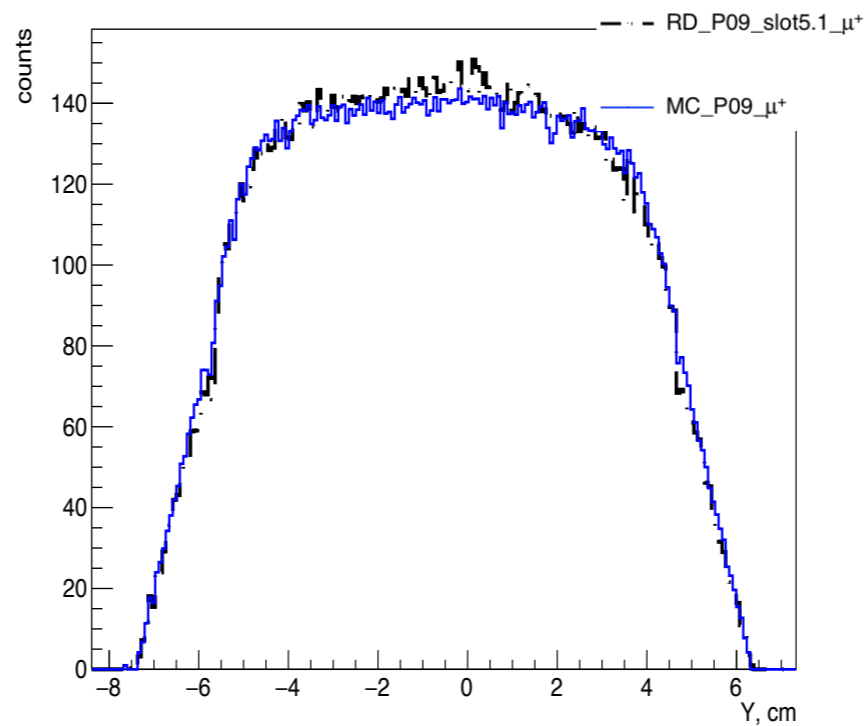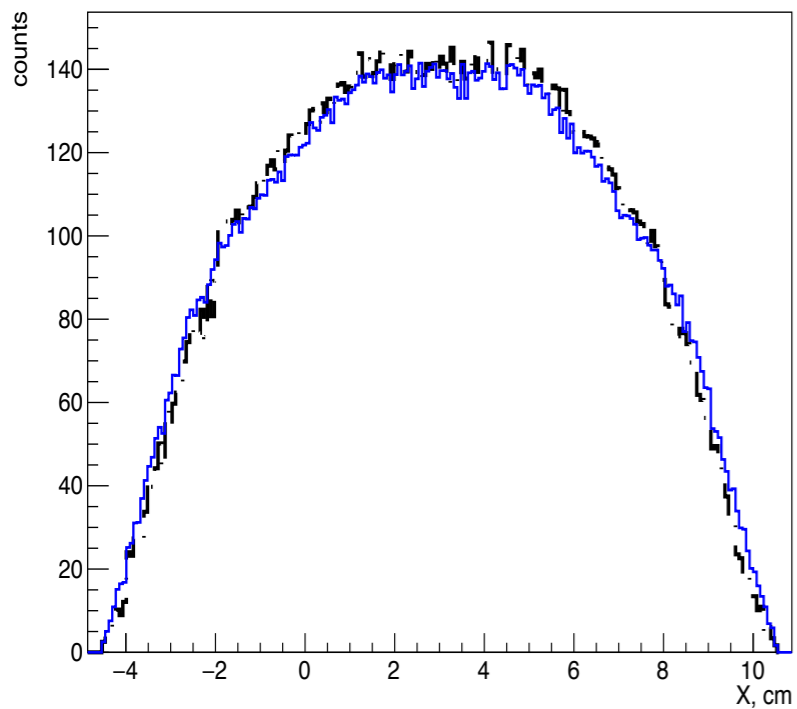
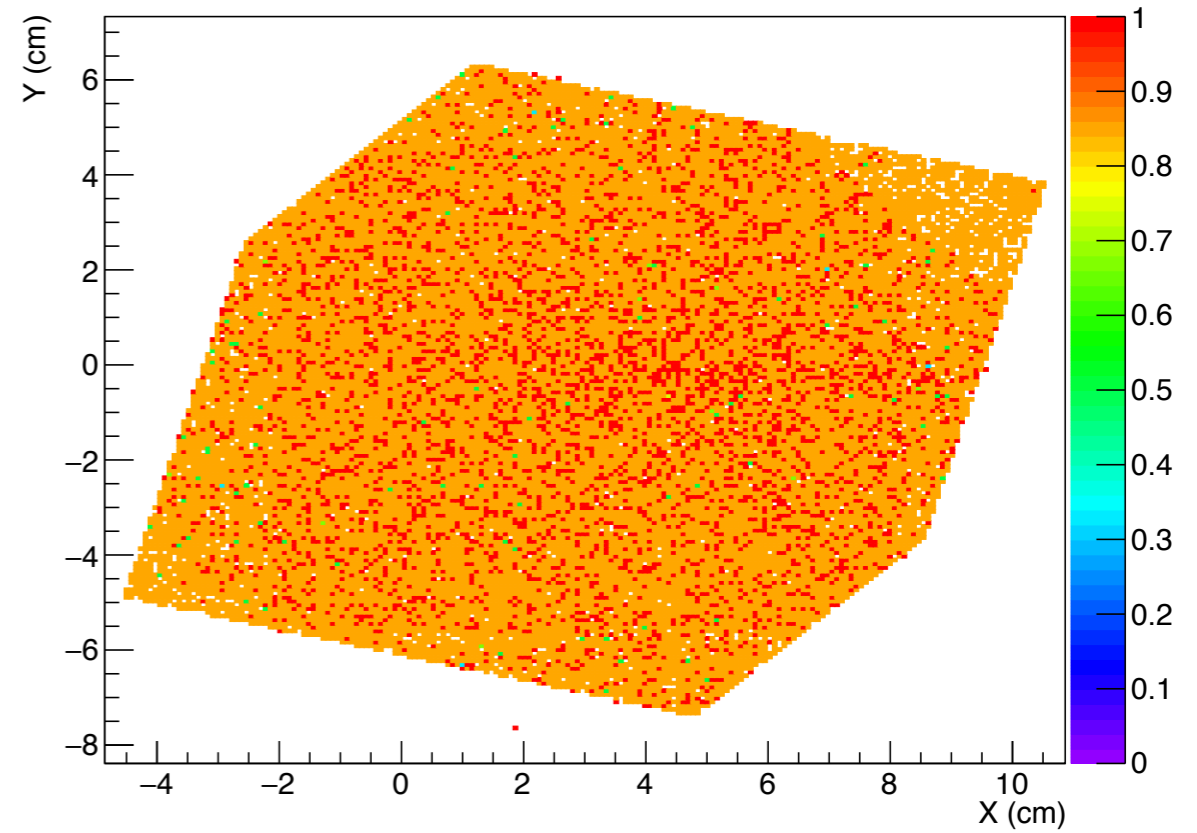MC_P09_μ⁺
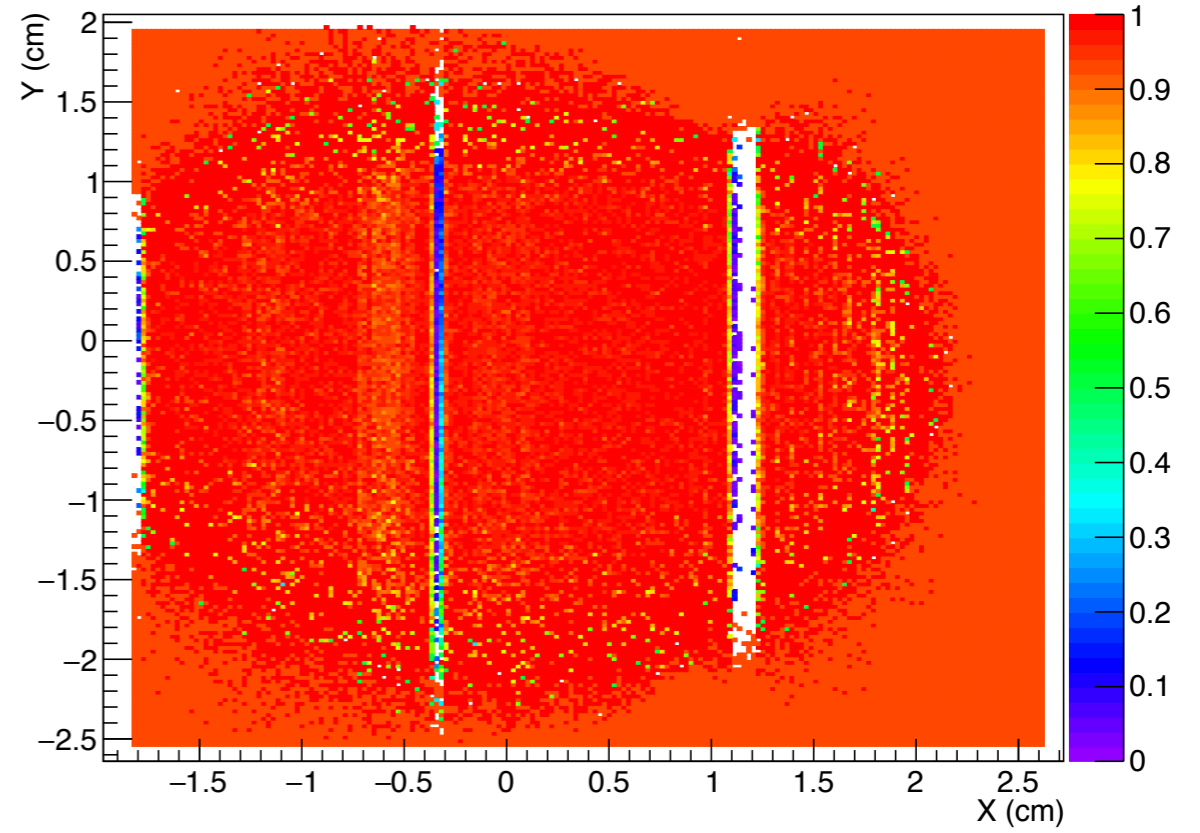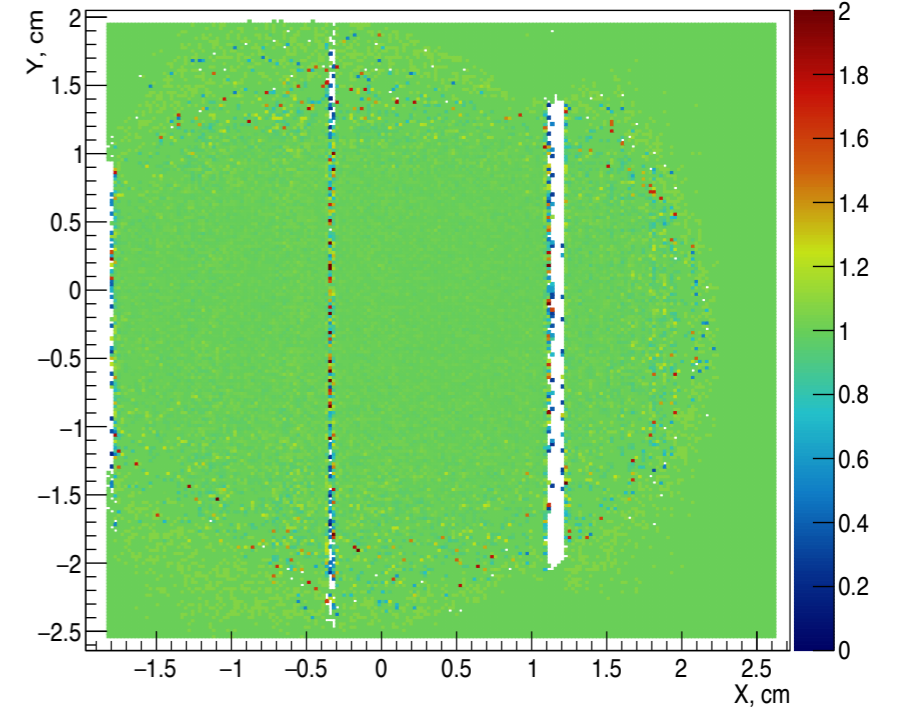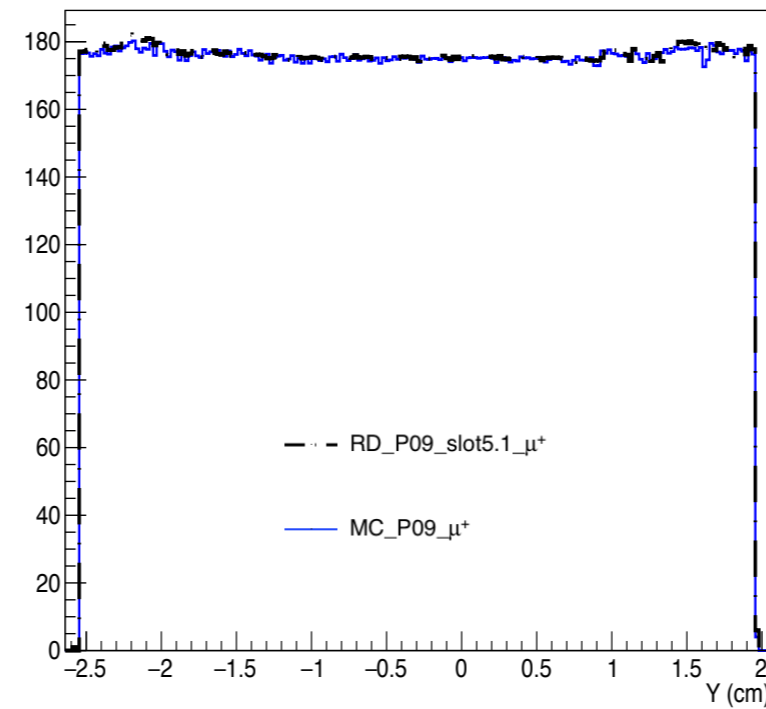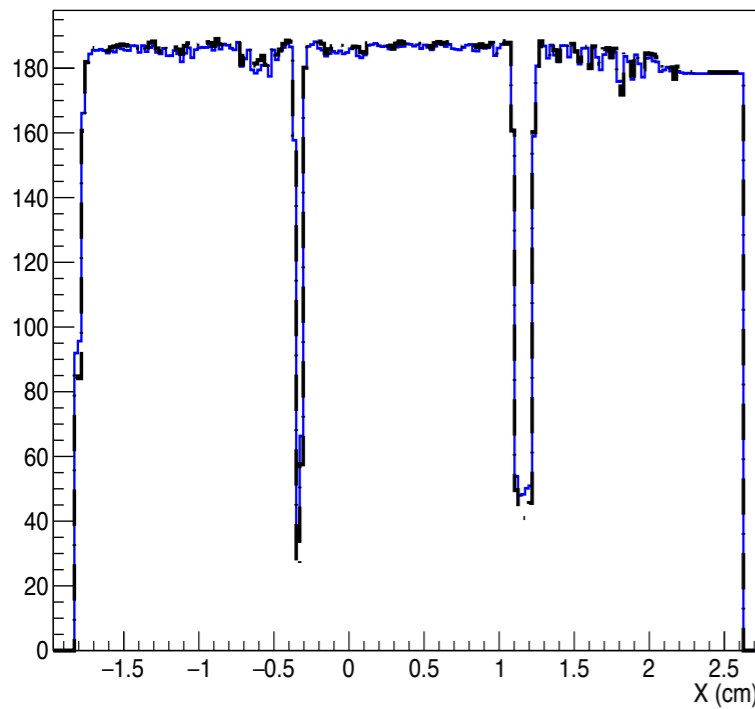
Most planes have very good agreement.

7

FI15U1

RD/MC ratio

8
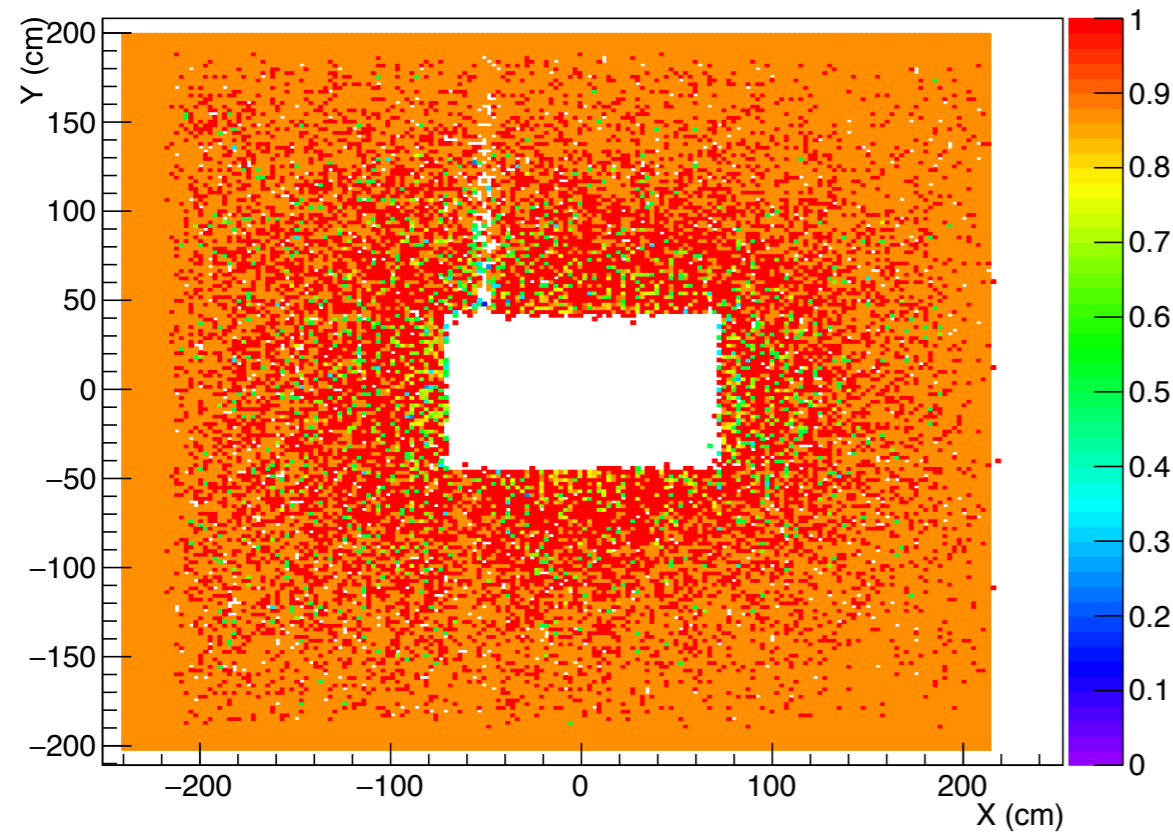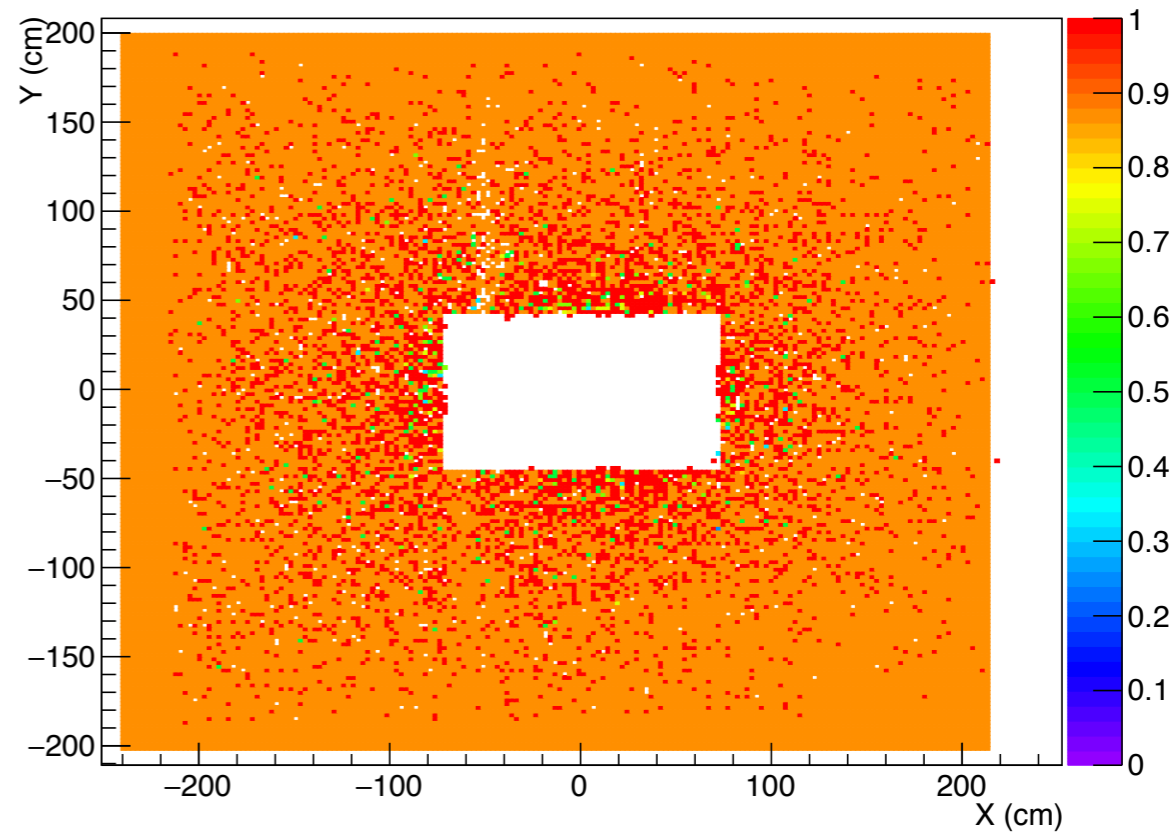
FI06V1

RD

MC

RD/MC ratio

RD_P09_slot5.1_μ⁺

MC_P09_μ⁺
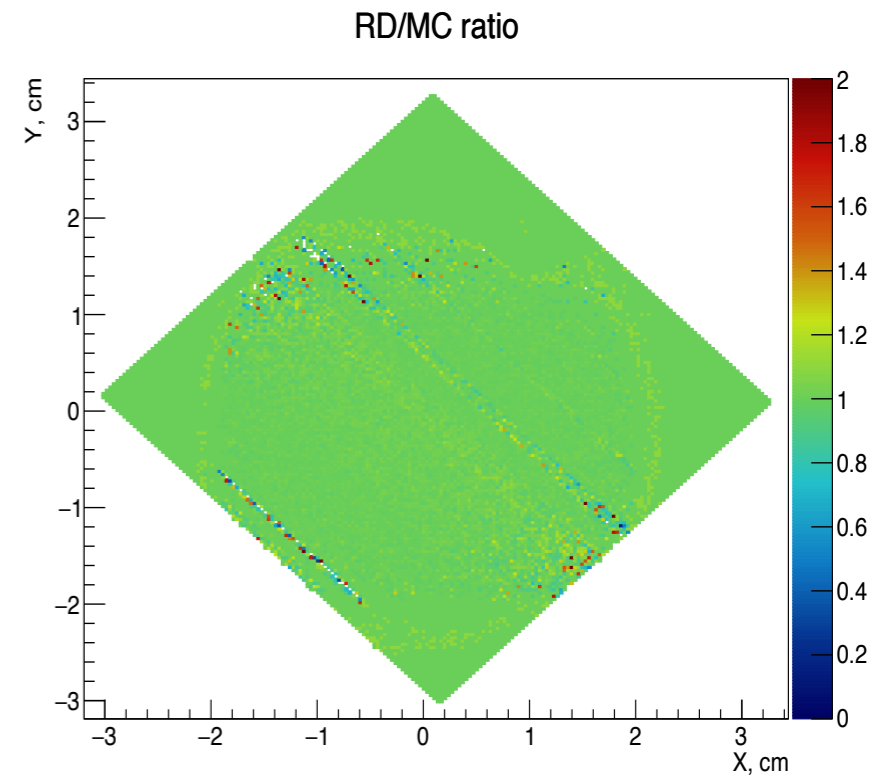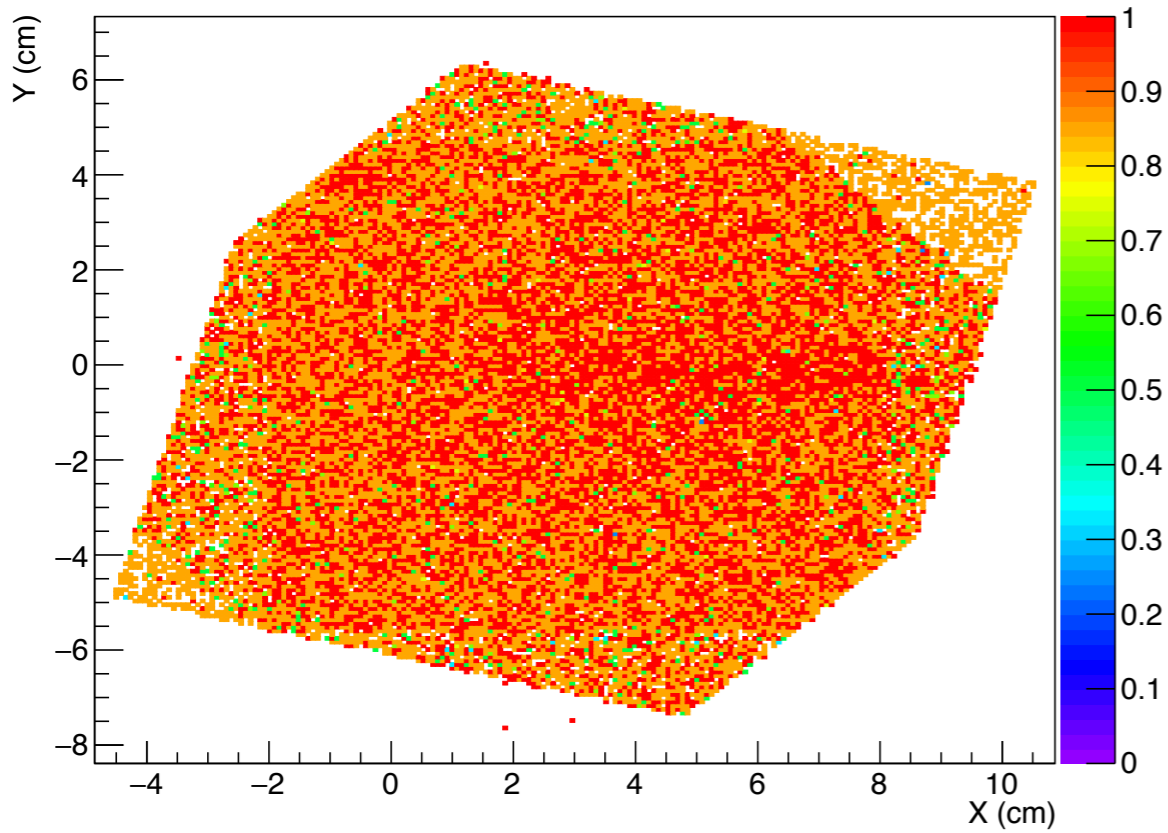
A problem with non-rectengular shapes was fixed.

MA01X1

RD/MC ratio

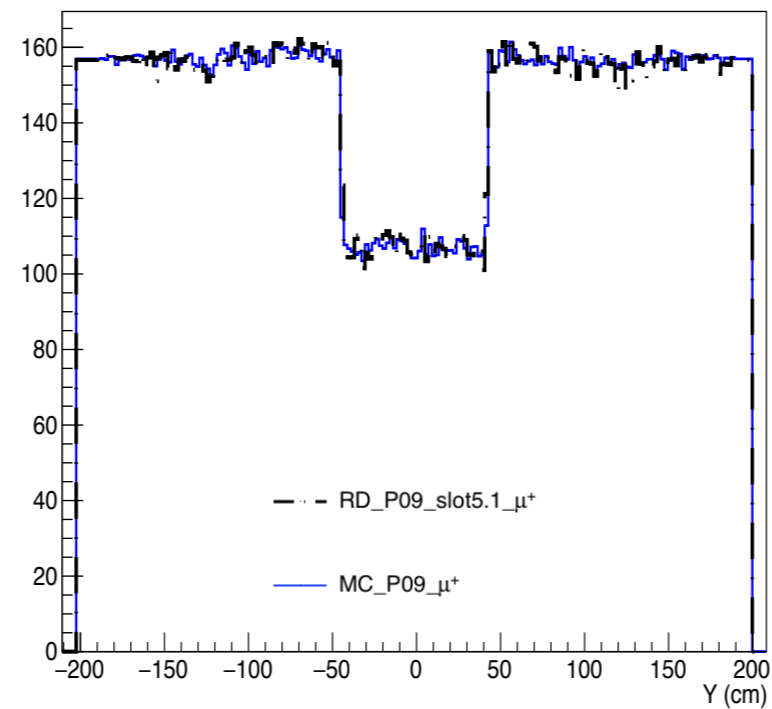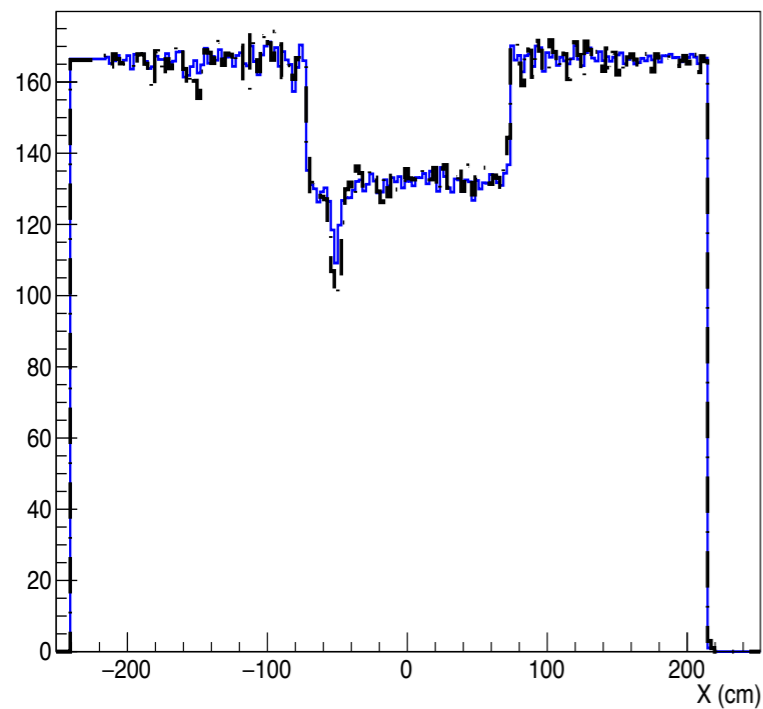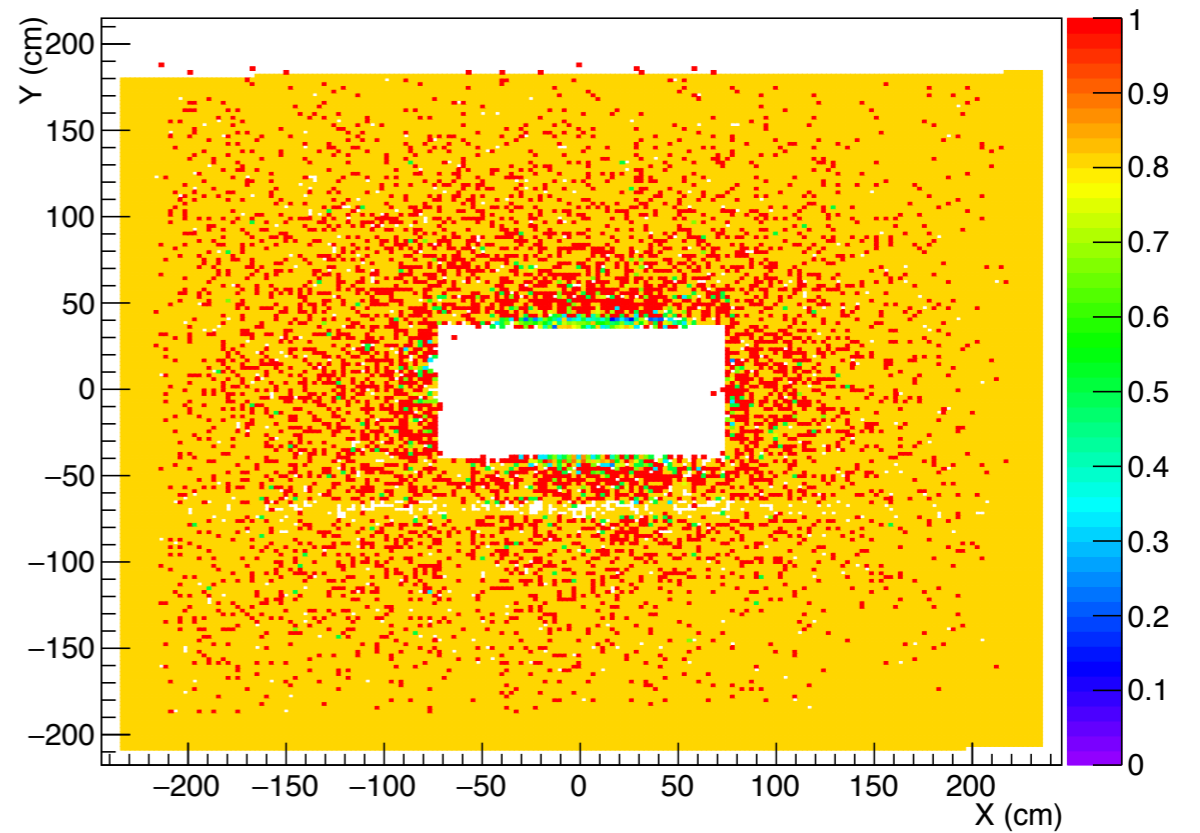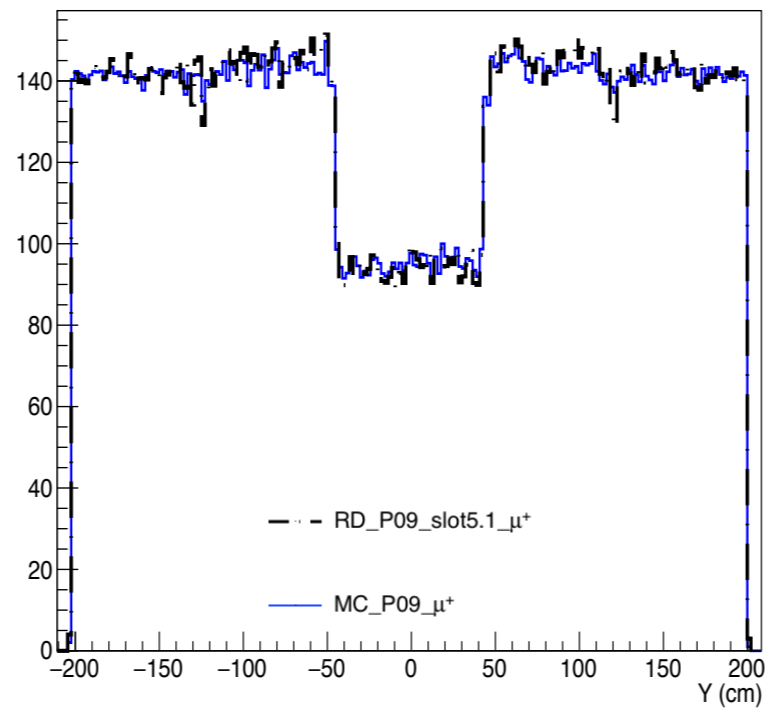RD_P09_slot5.1_μ⁺

MC_P09_μ⁺
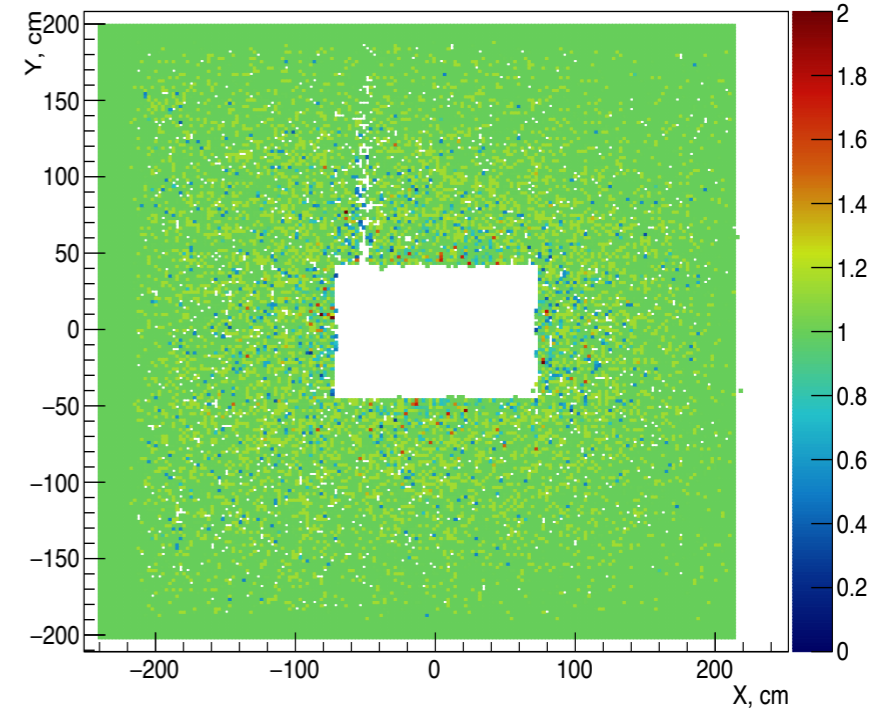
MA01Y1

RD

MC
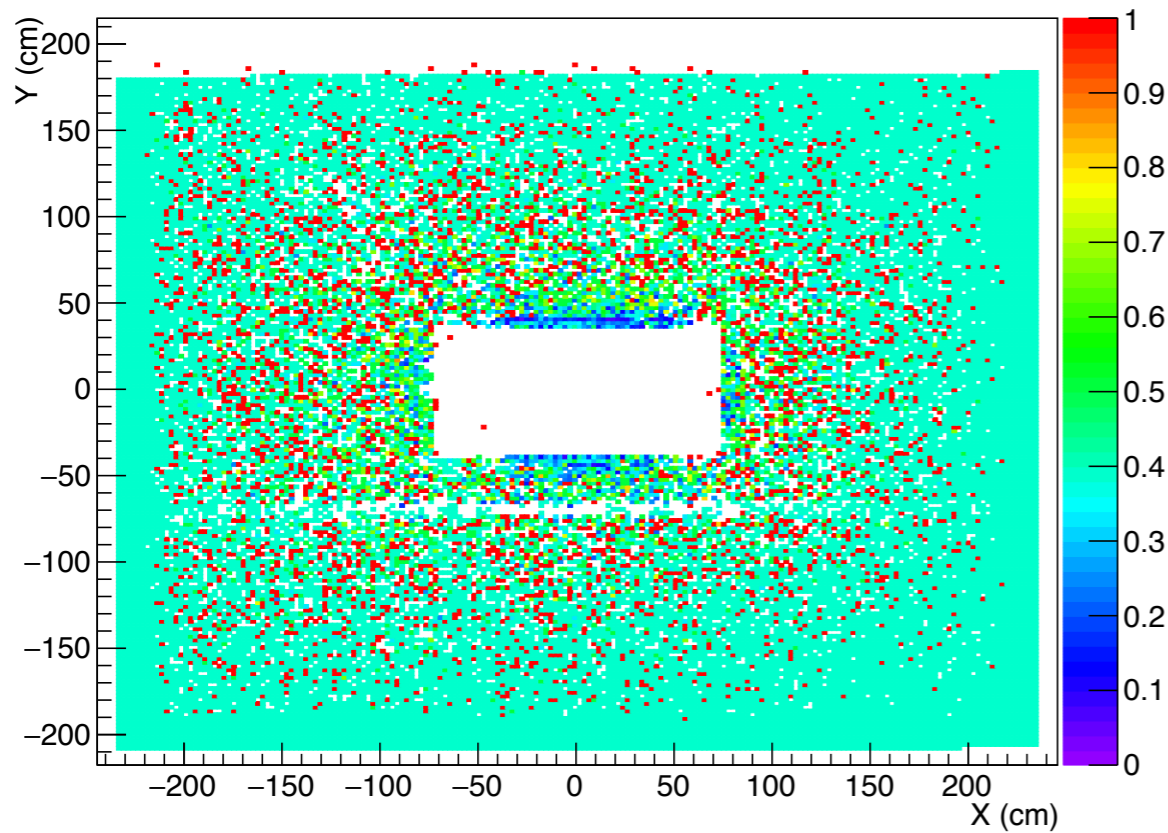
RD/MC ratio
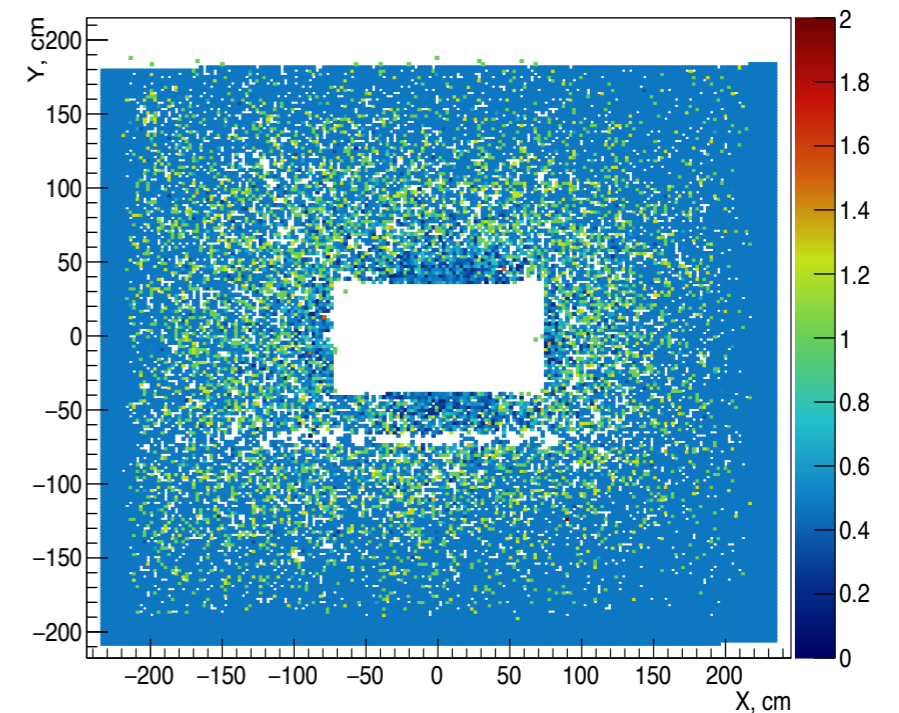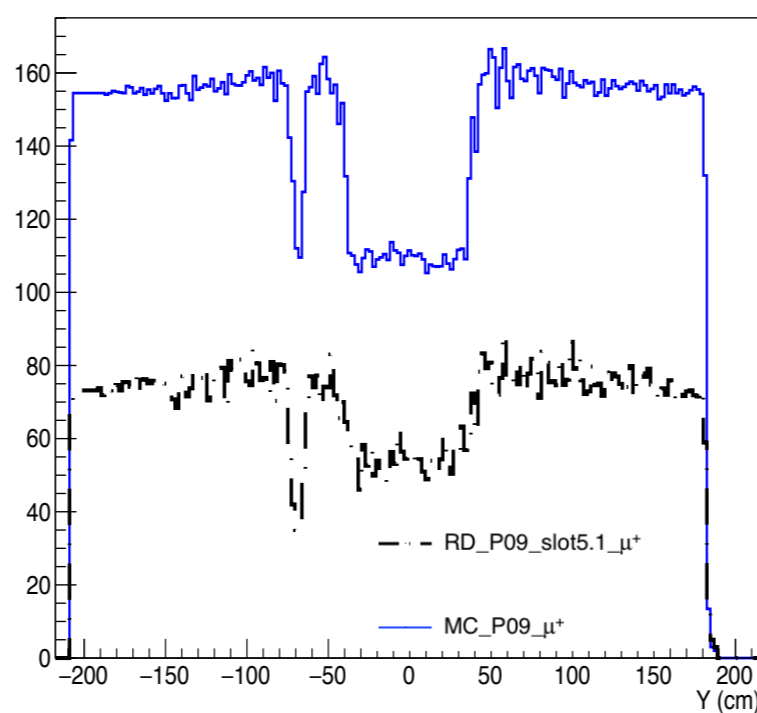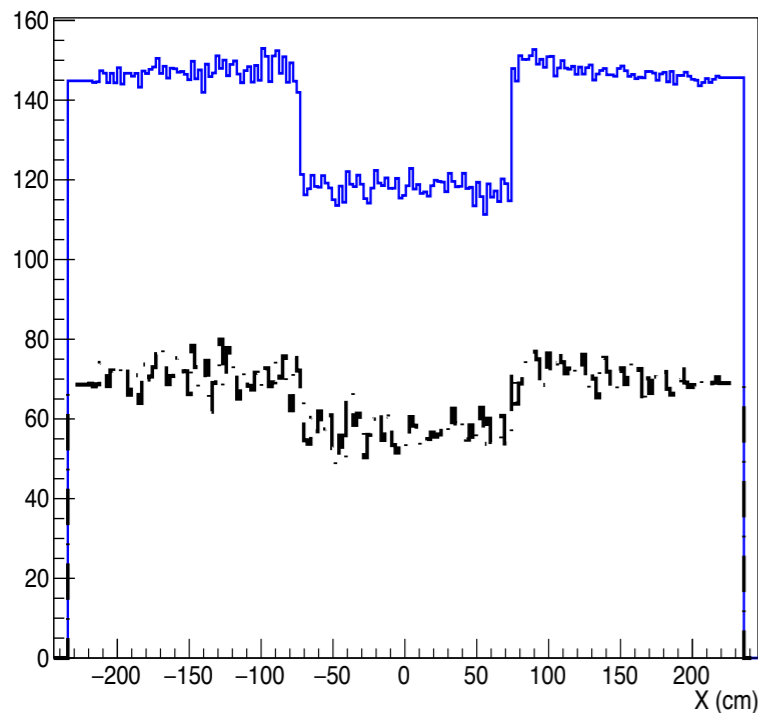
Low pseudoEfficiency in the data
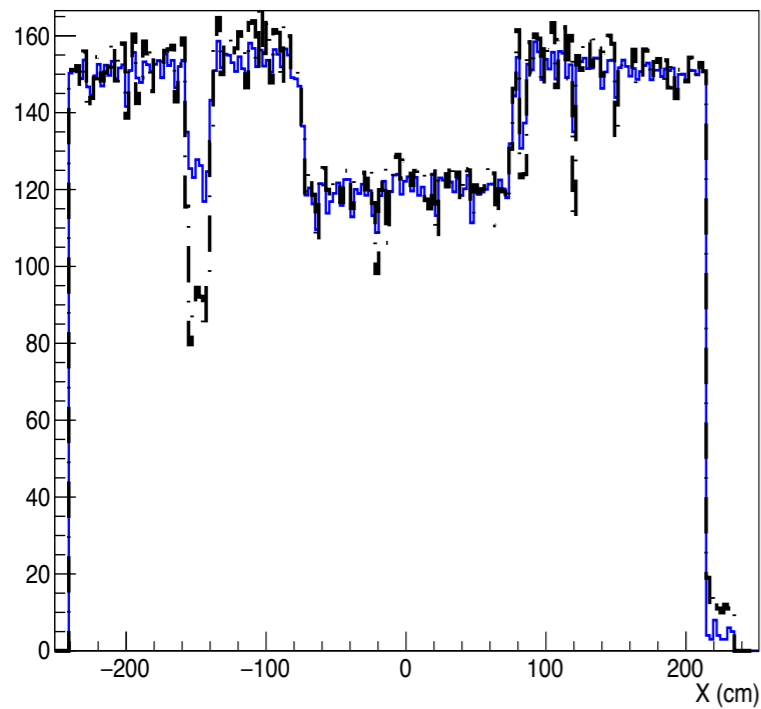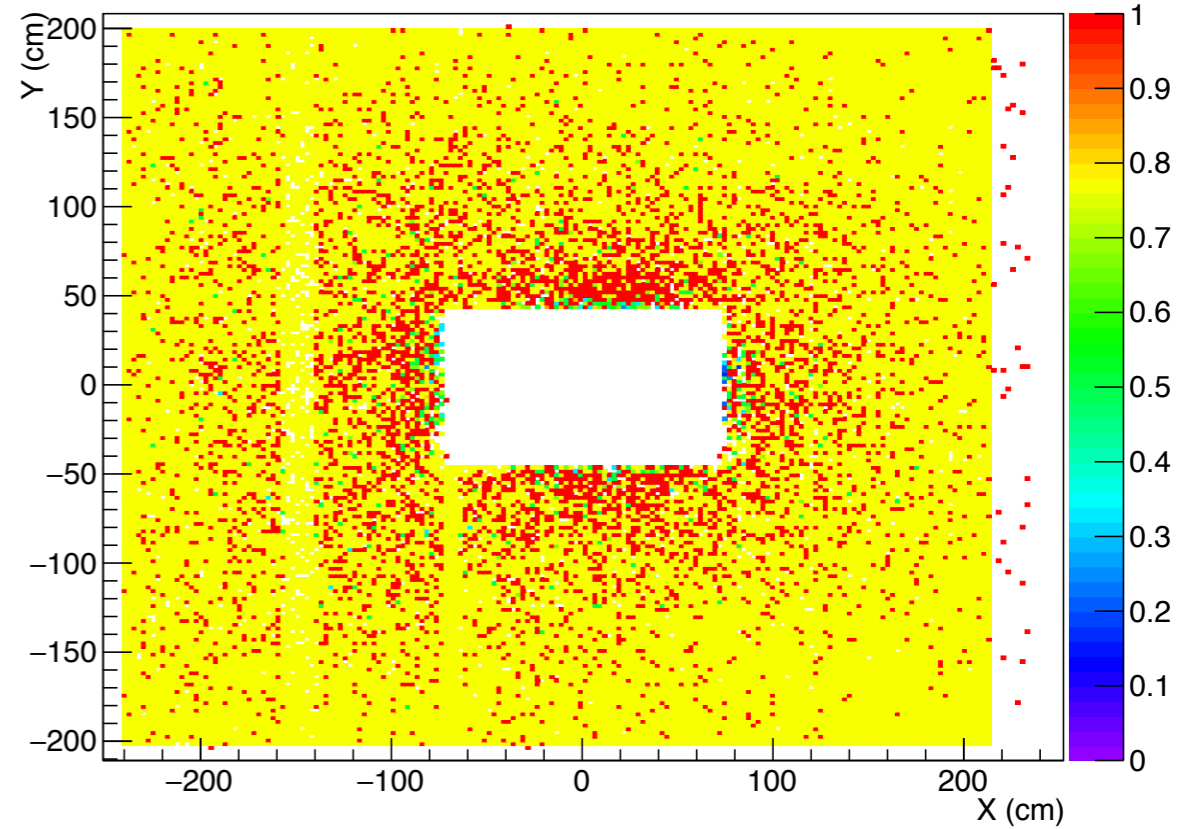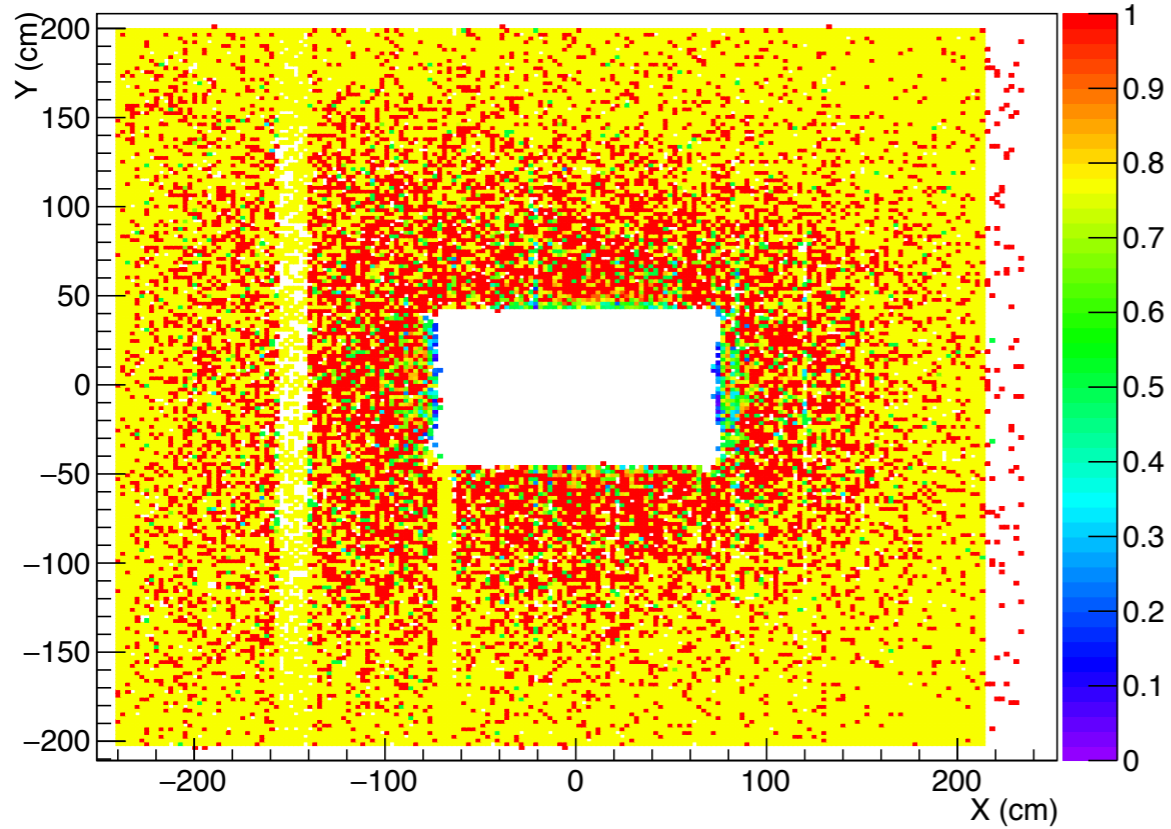
11

MA02X4

RD

MC

RD/MC ratio
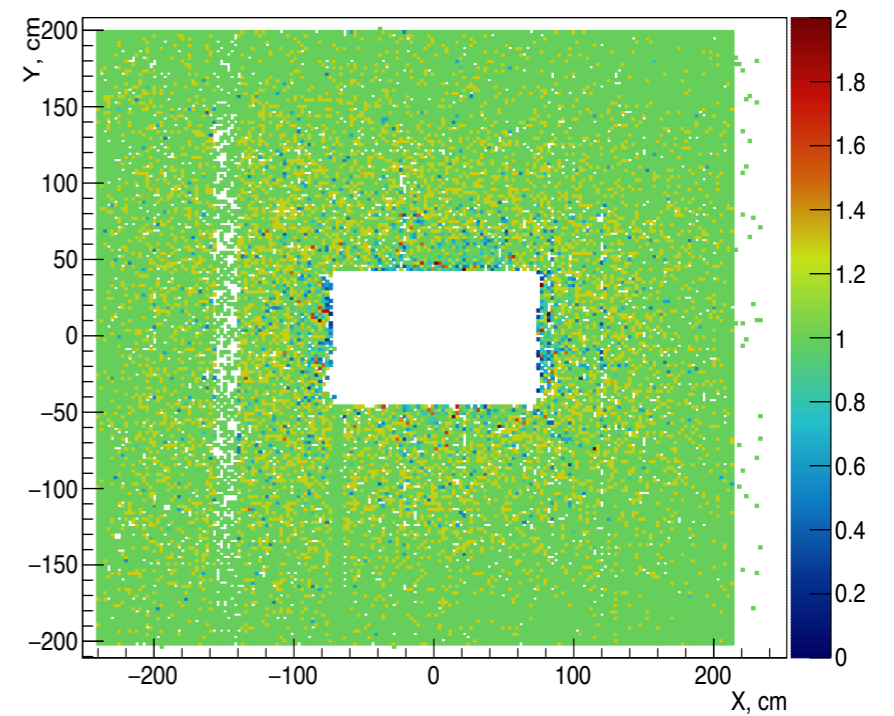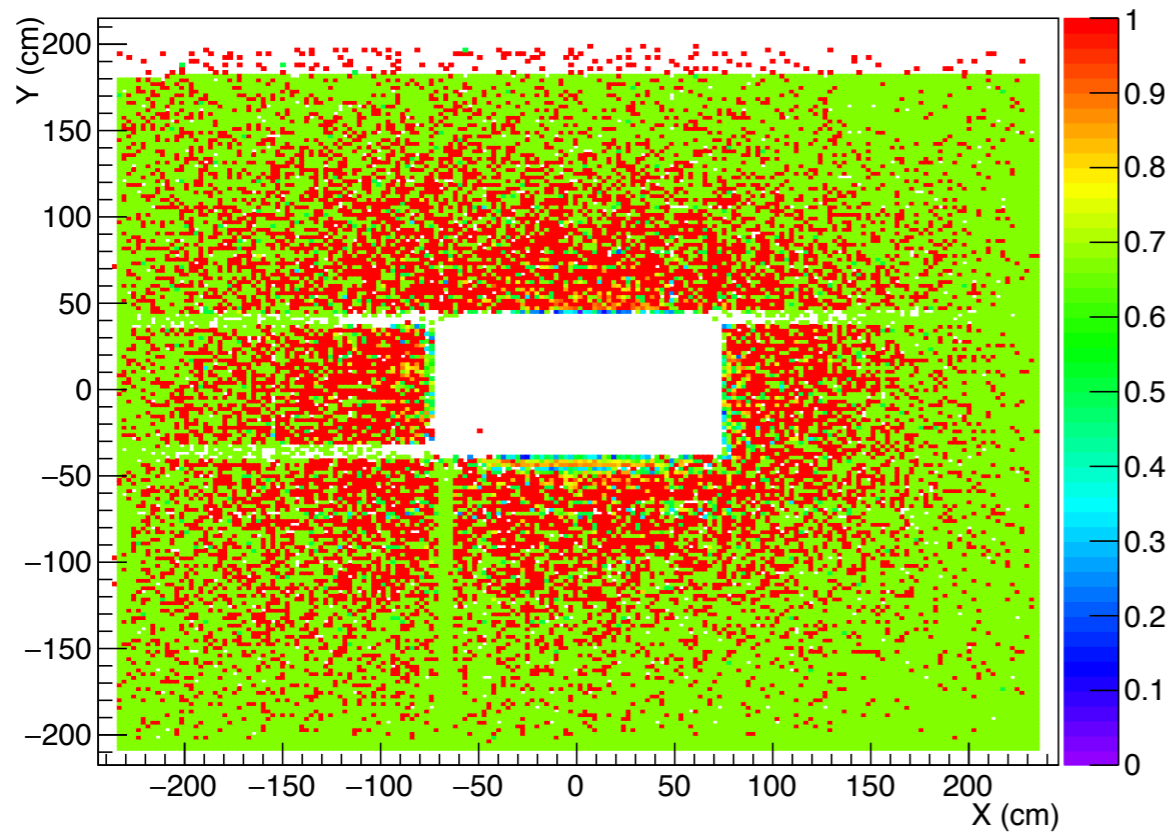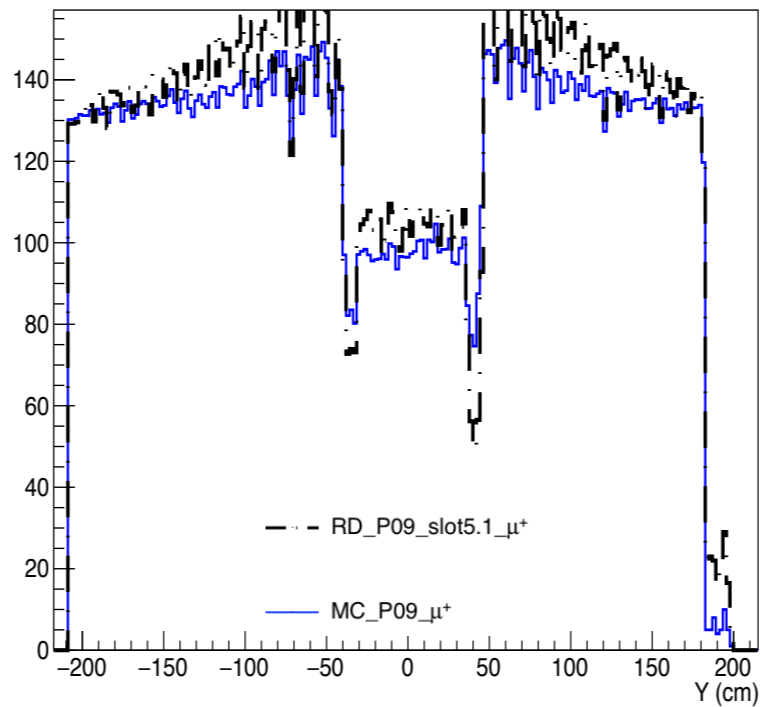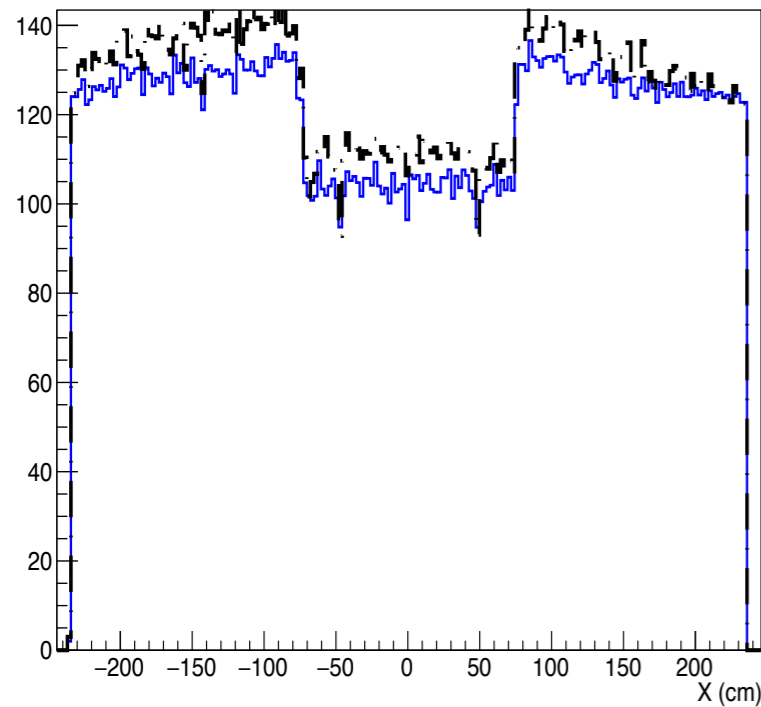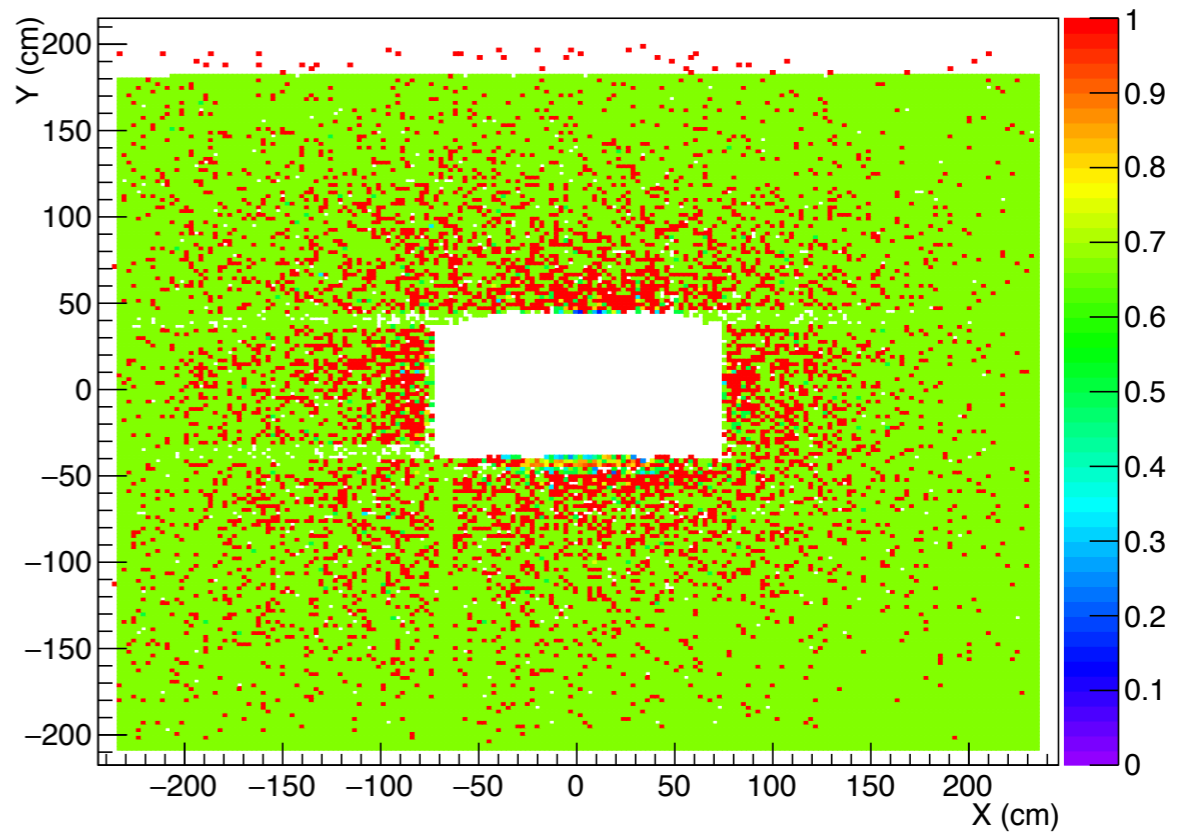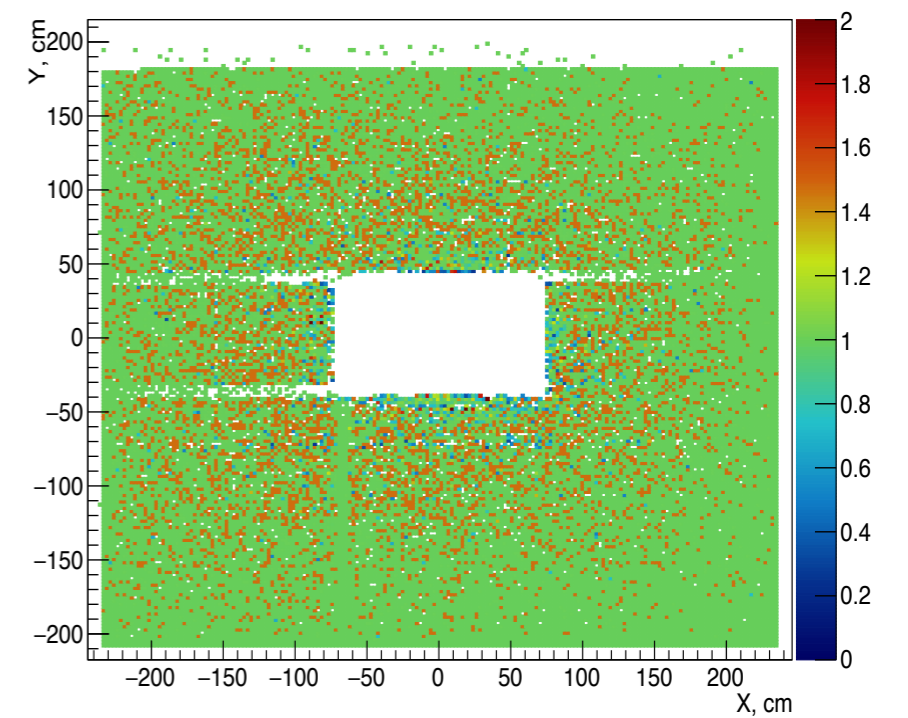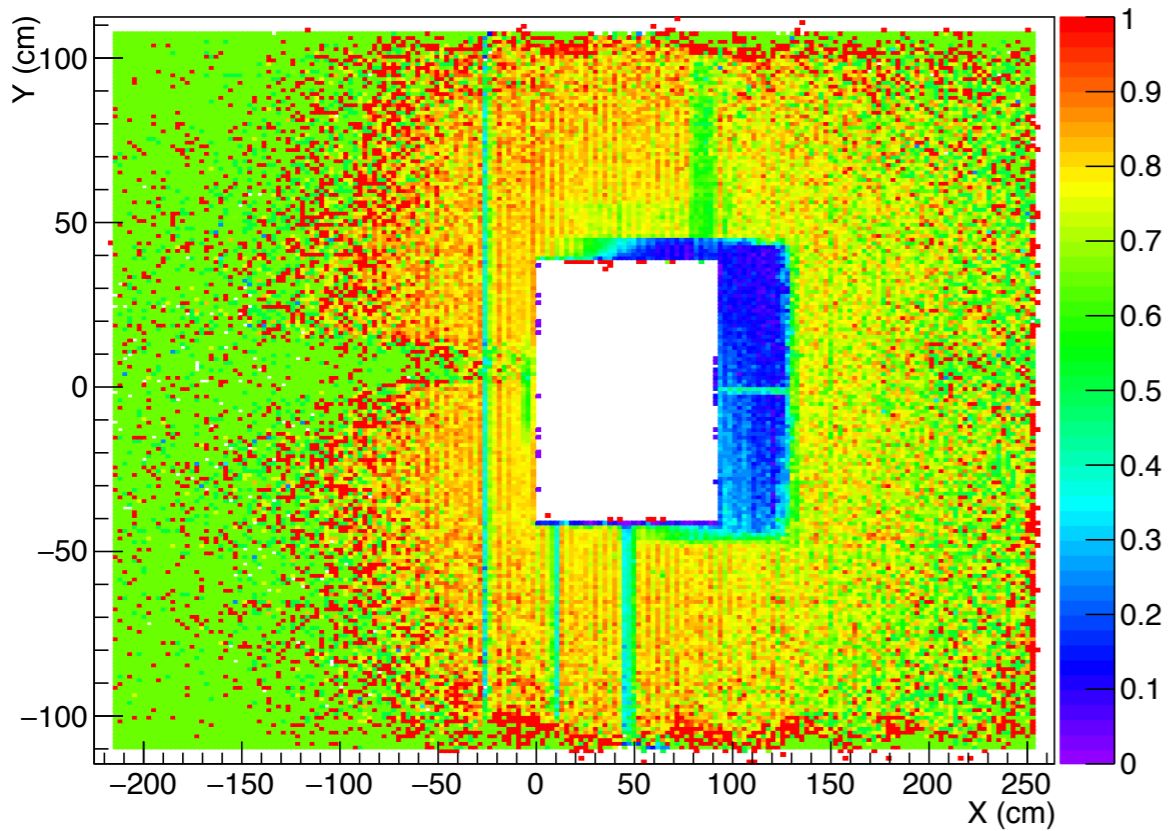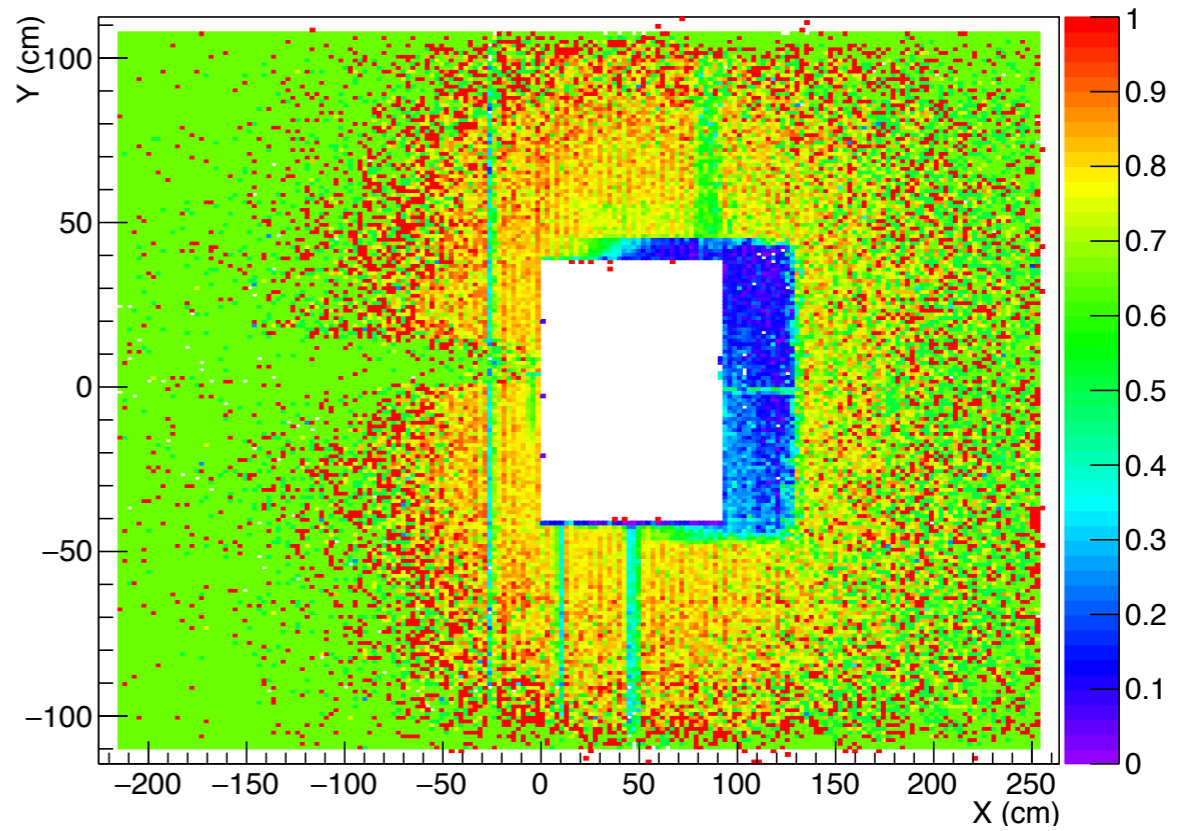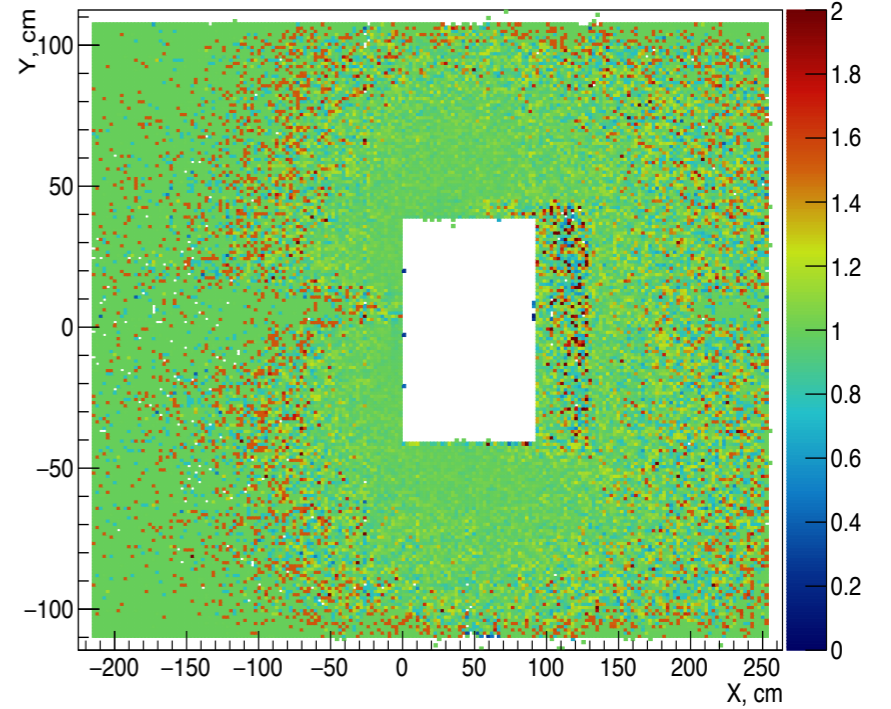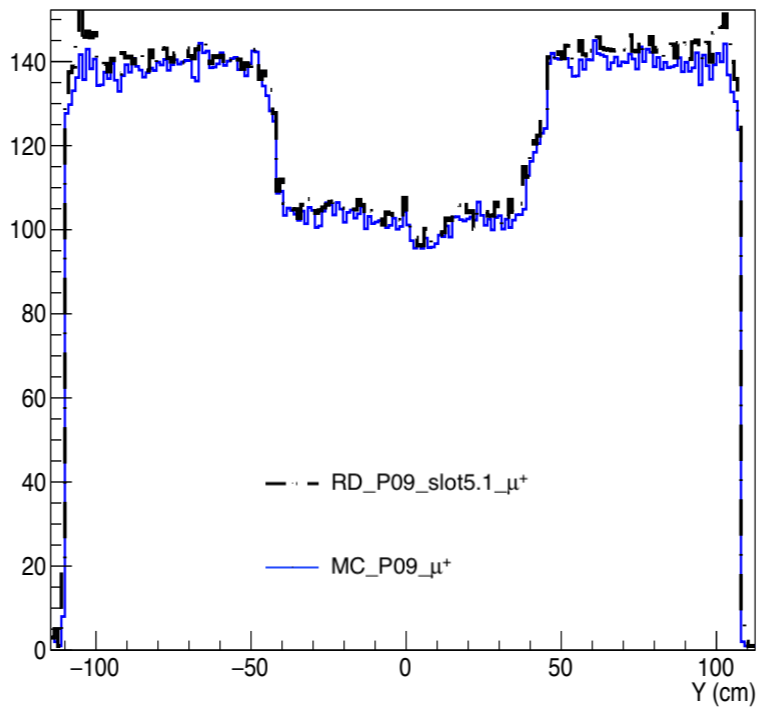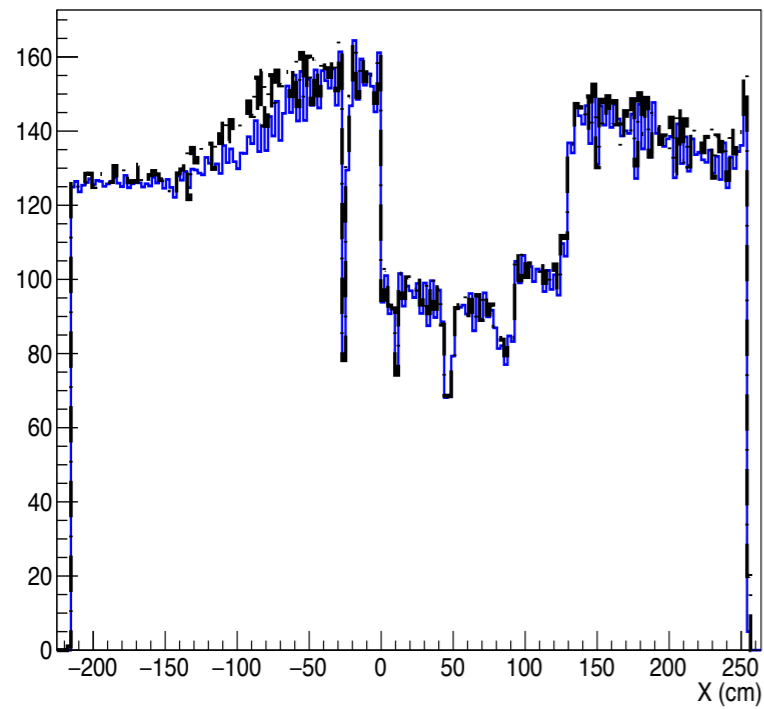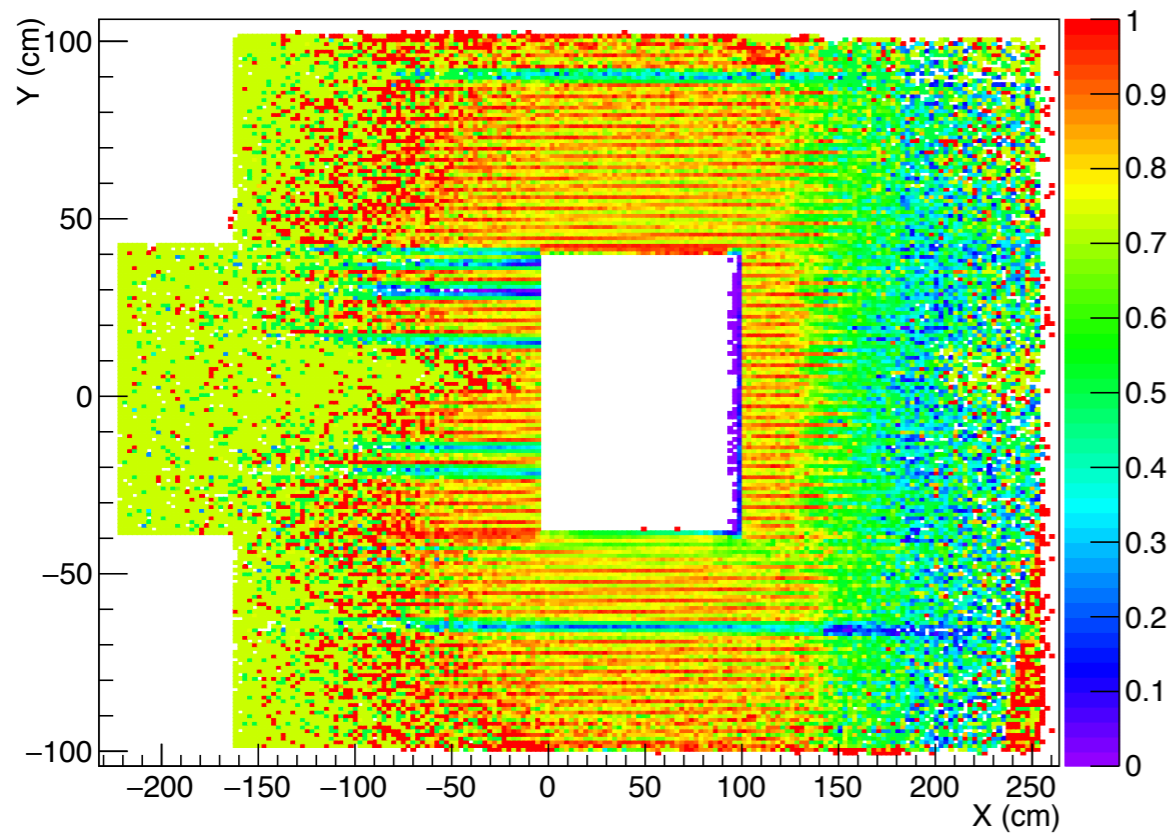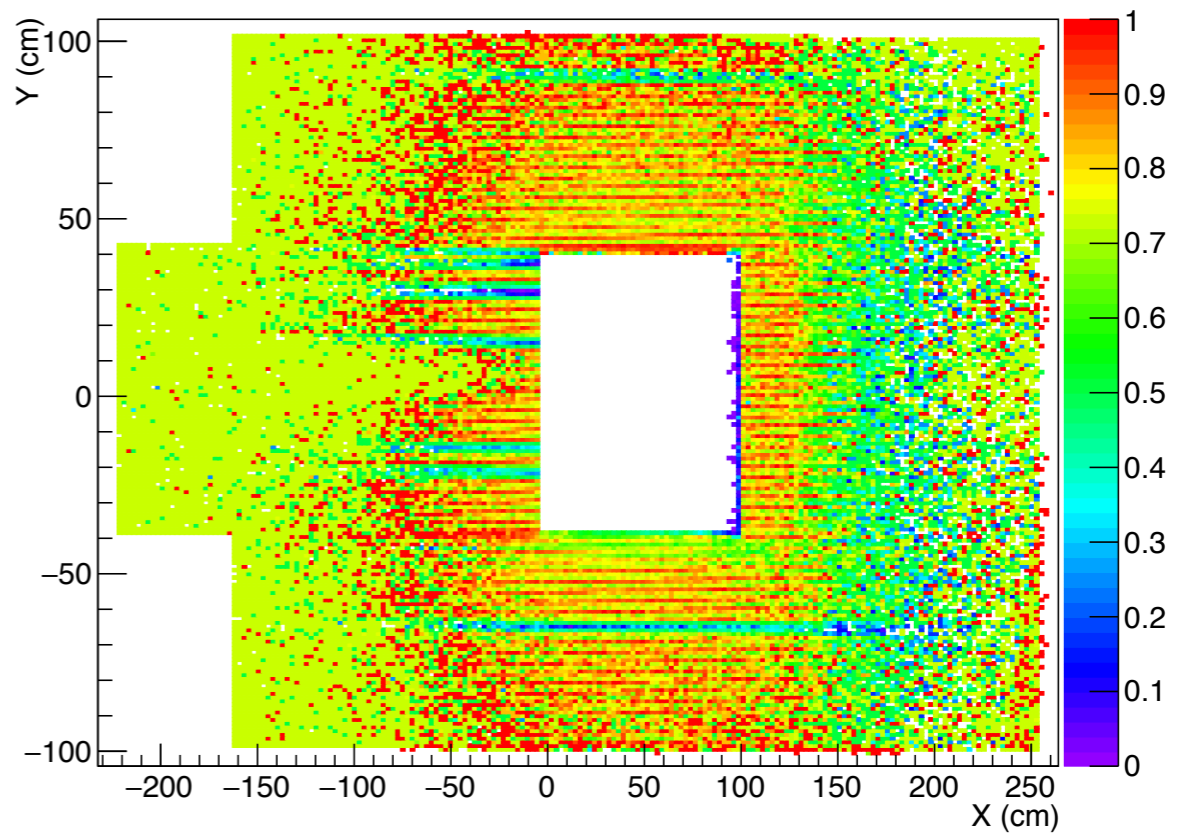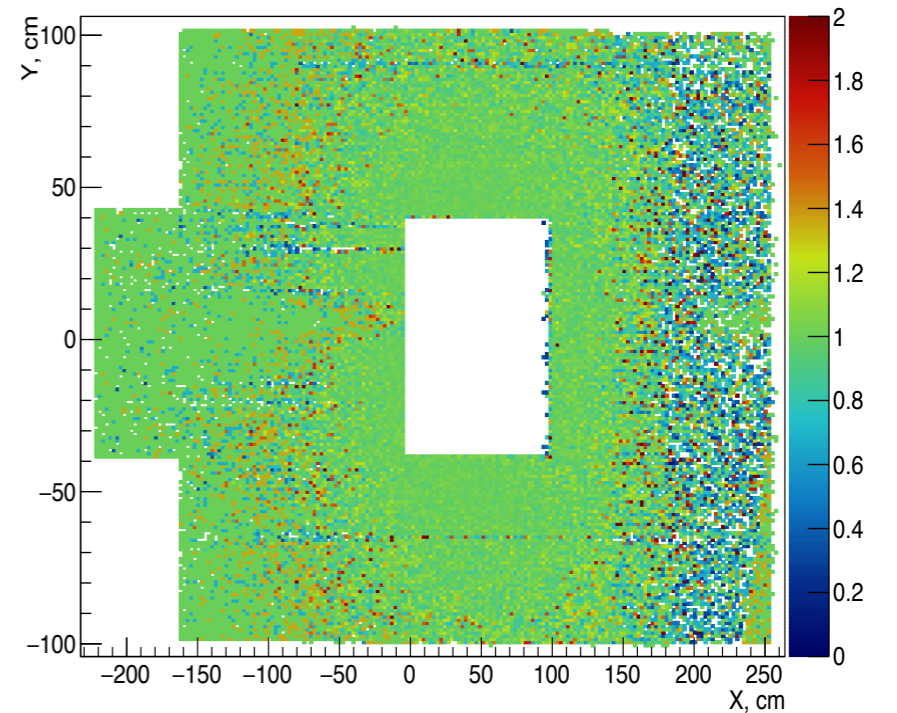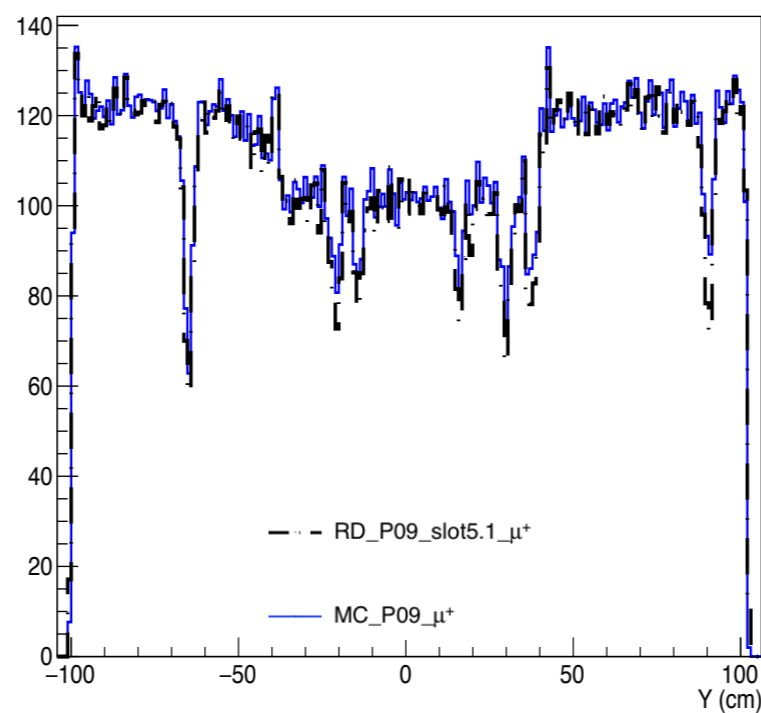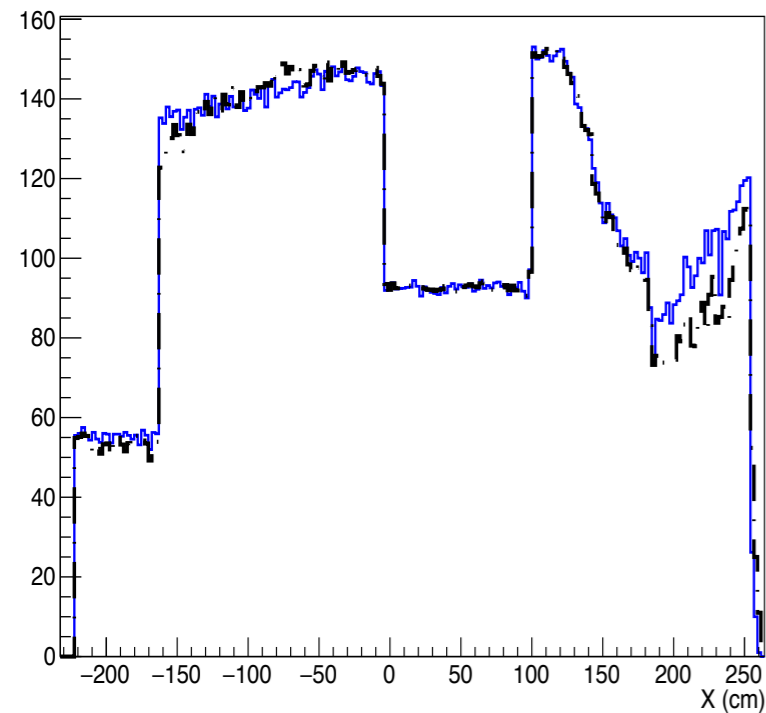
RD_P09_slot5.1_μ⁺

MC_P09_μ⁺

MA02Y2

RD/MC ratio

RD_P09_slot5.1_μ⁺

MC_P09_μ⁺

MB02X2

RD/MC ratio

RD_P09_slot5.1_μ⁺

MC_P09_μ⁺

14

MB02Y2

RD/MC ratio

RD_P09_slot5.1_μ+

MC_P09_μ+

PA04U1

RD/MC ratio

RD_P09_slot5.1_μ⁺

MC_P09_μ⁺

PA05V1

RD/MC ratio

RD_P09_slot5.1_μ^+

MC_P09_μ^+

17

PS01Y1

RD/MC ratio

RD_P09_slot5.1_μ^+

MC_P09_μ^+

18

GM11X1-Y1

RD/MC ratio

RD_P09_slot5.1_μ⁺

MC_P09_μ⁺

19

GP03P1-U1-V1

RD/MC ratio

DW02X2

RD/MC ratio

RD_P09_slot5.1_μ⁺

MC_P09_μ⁺
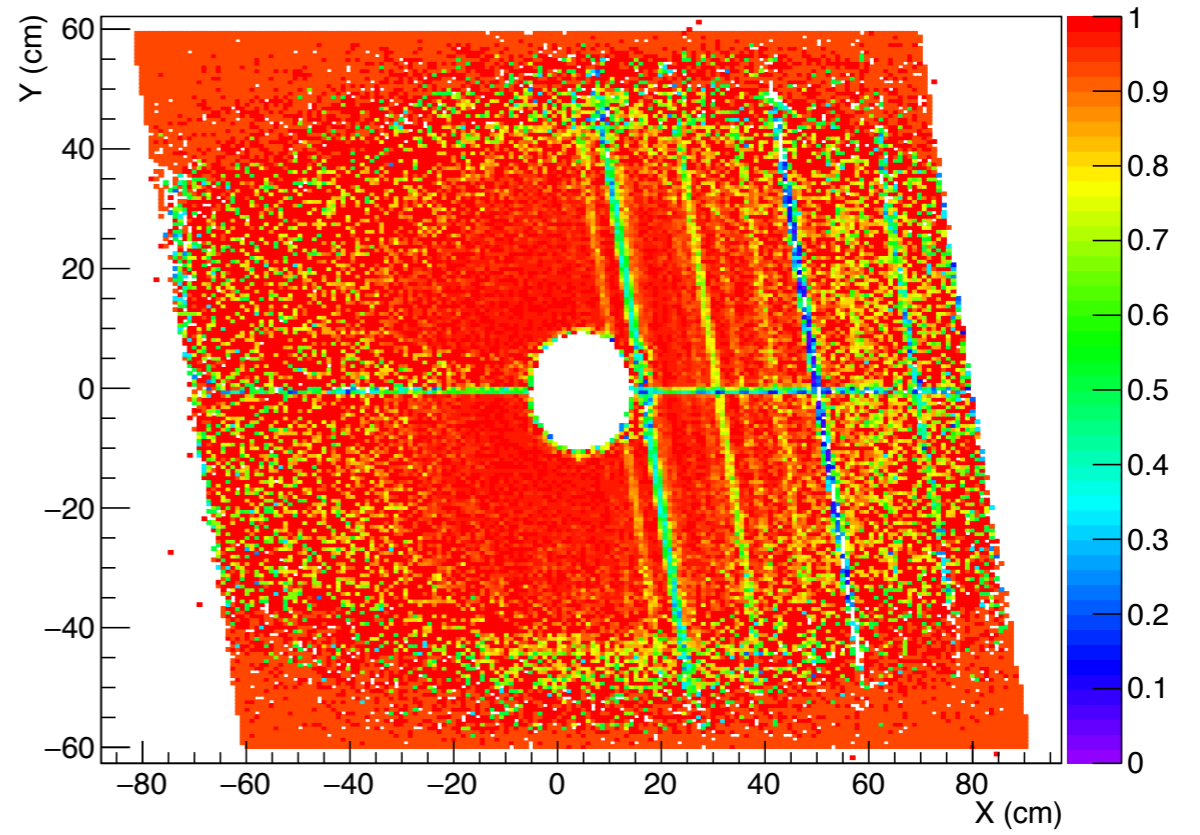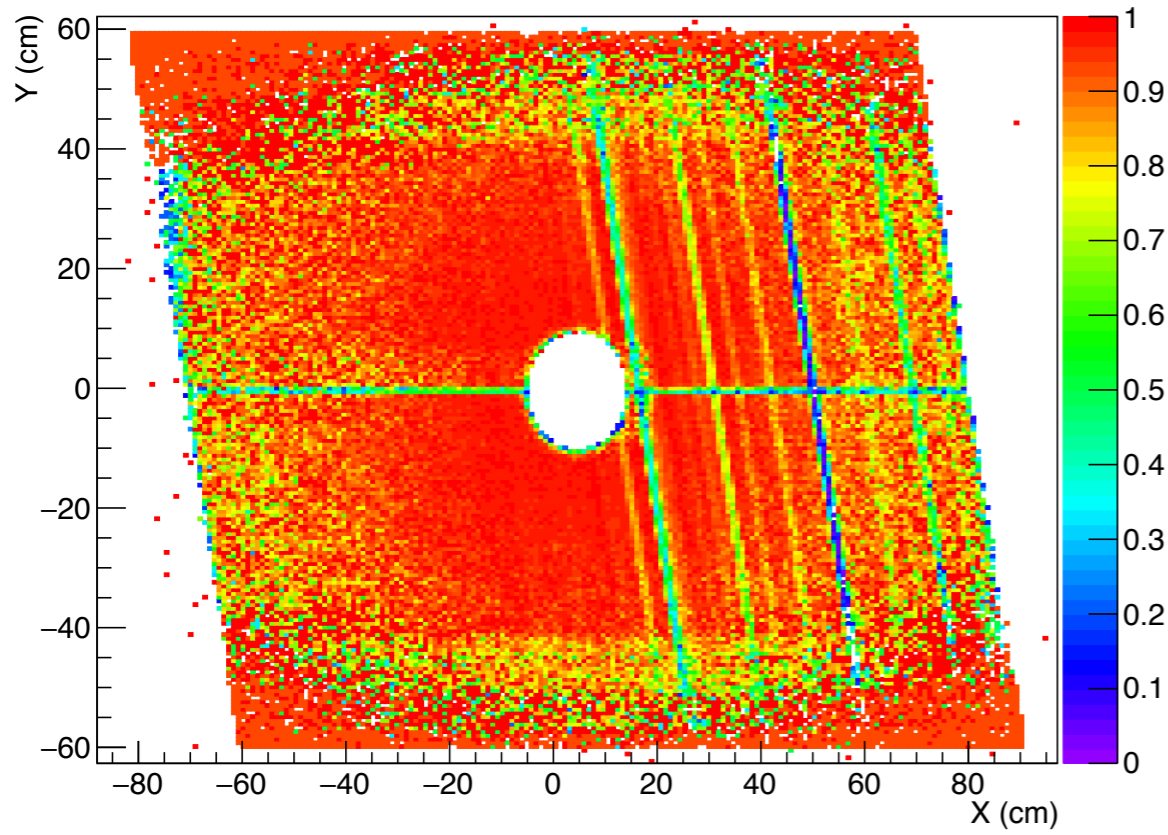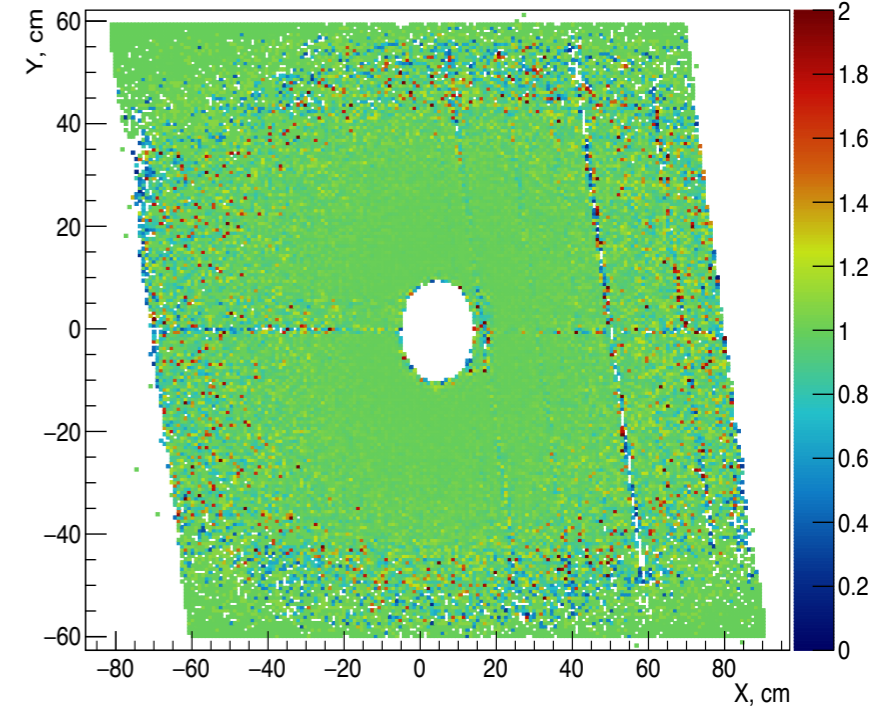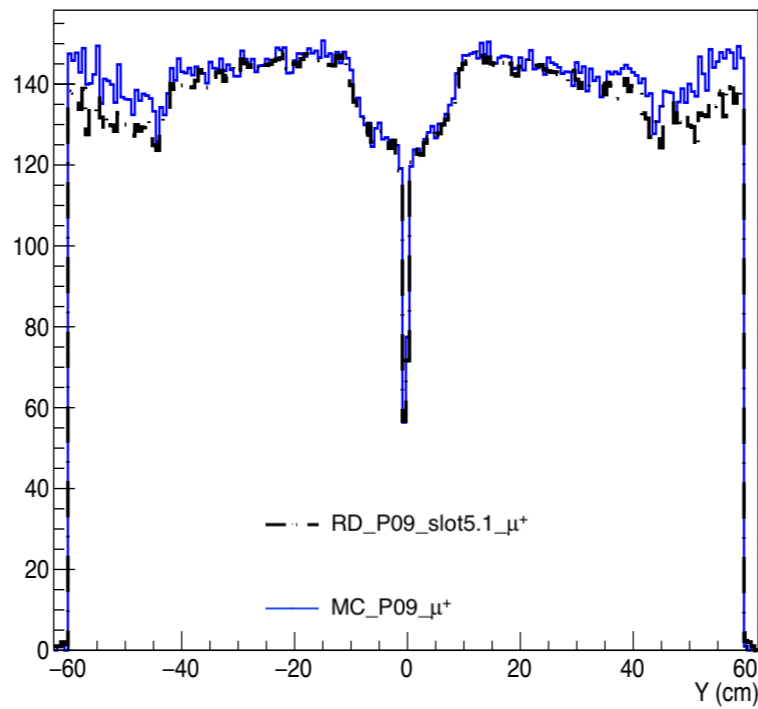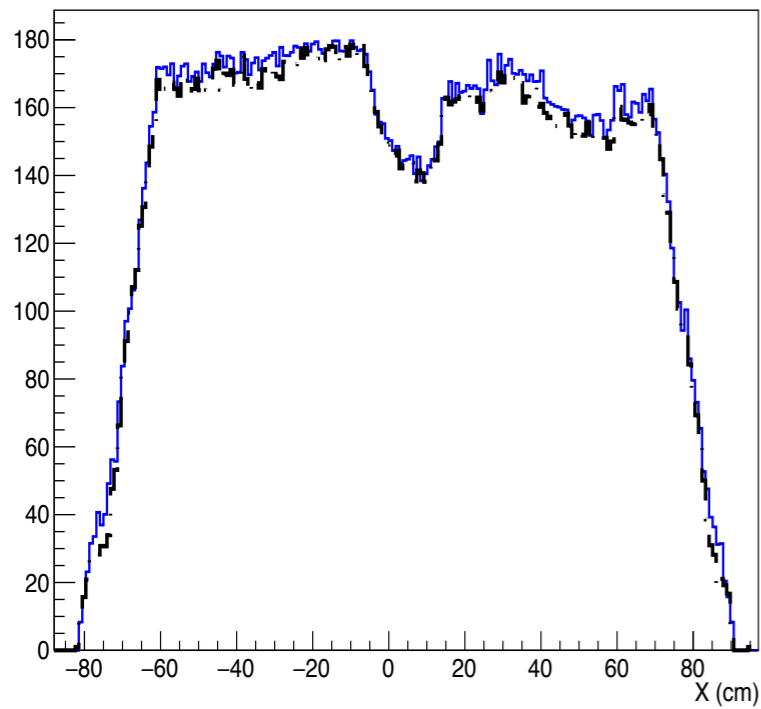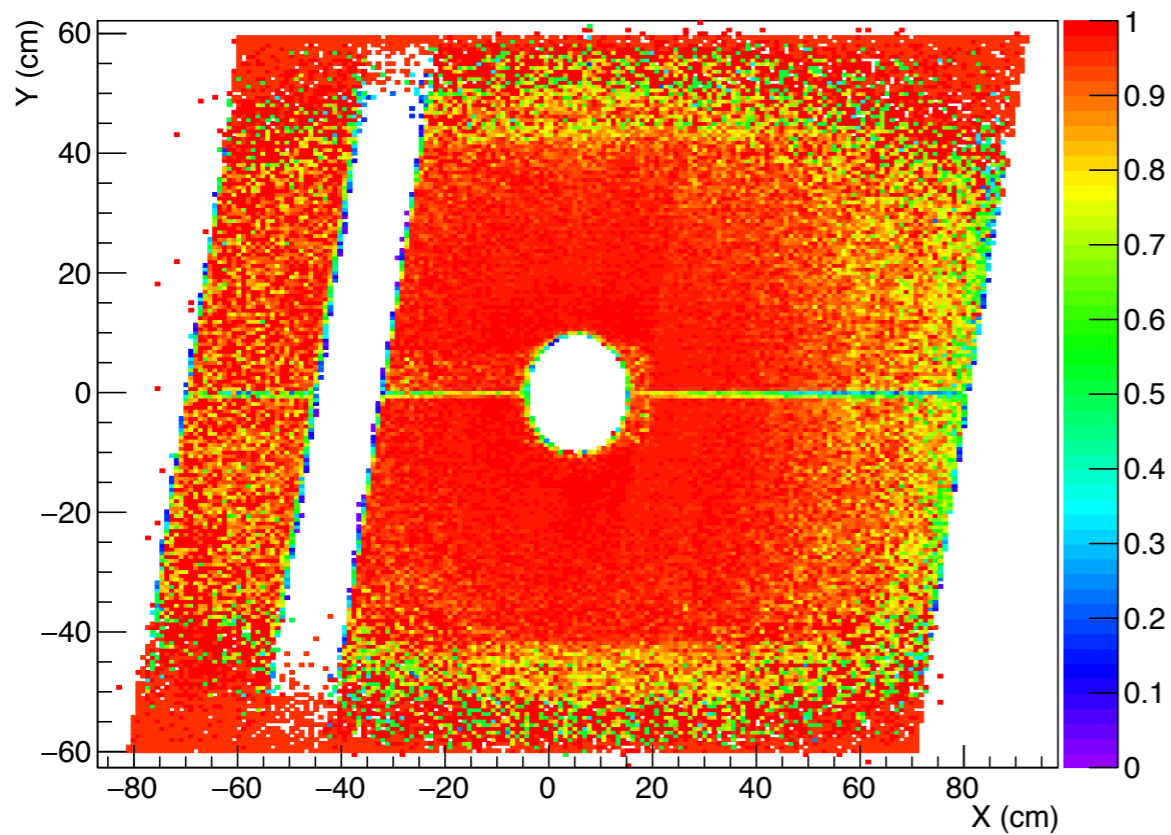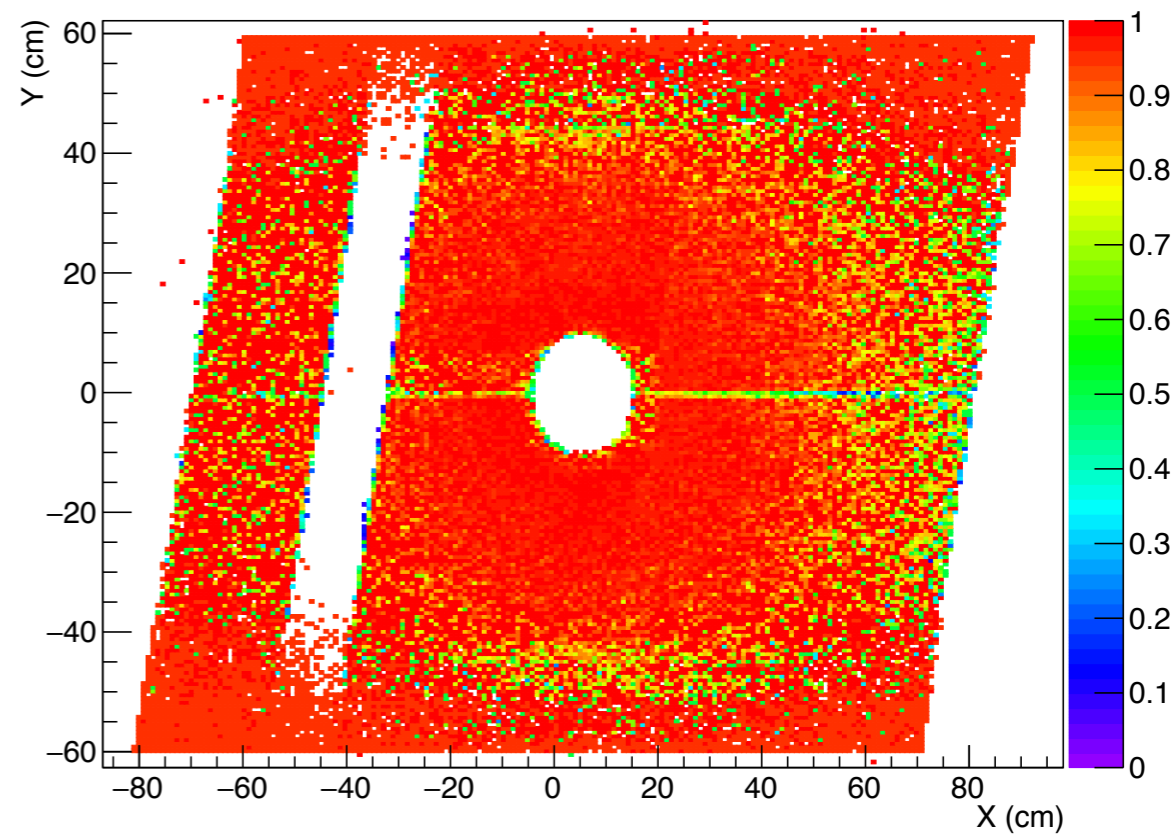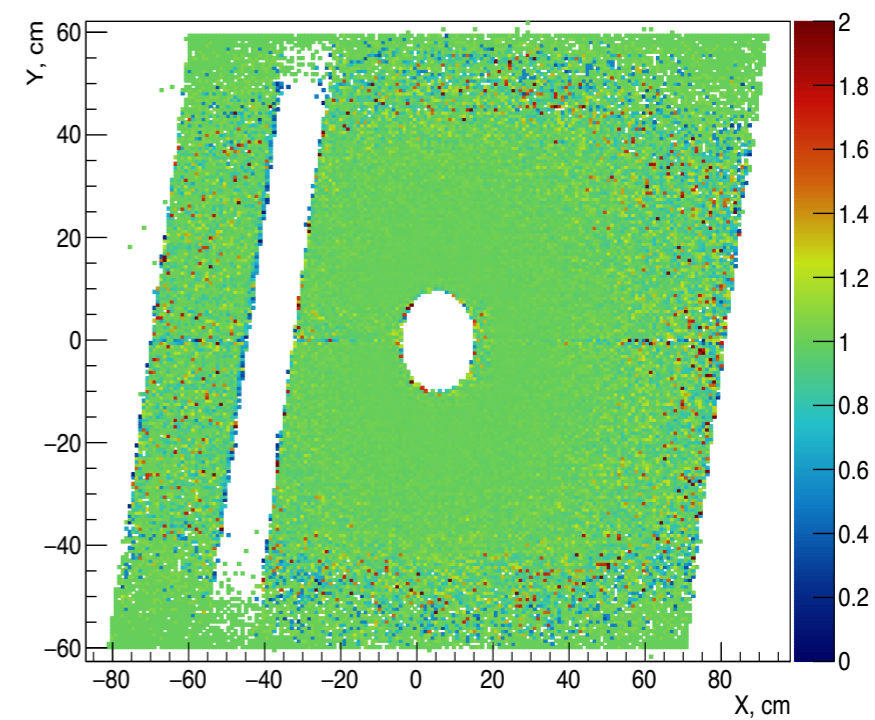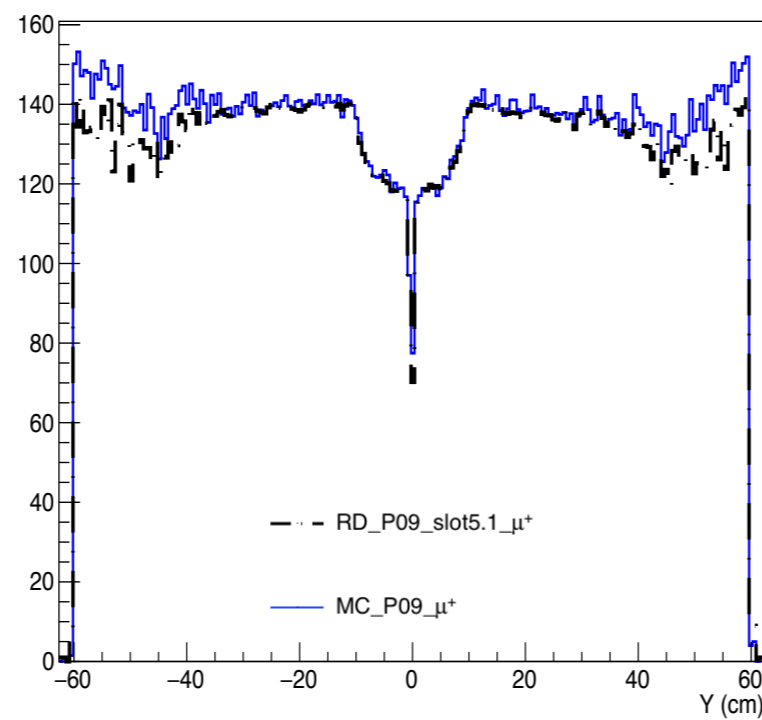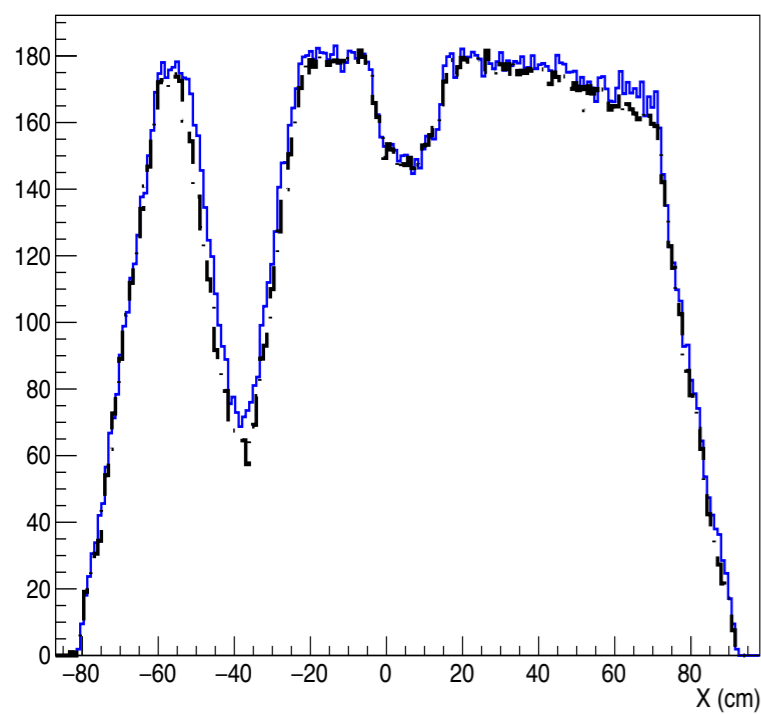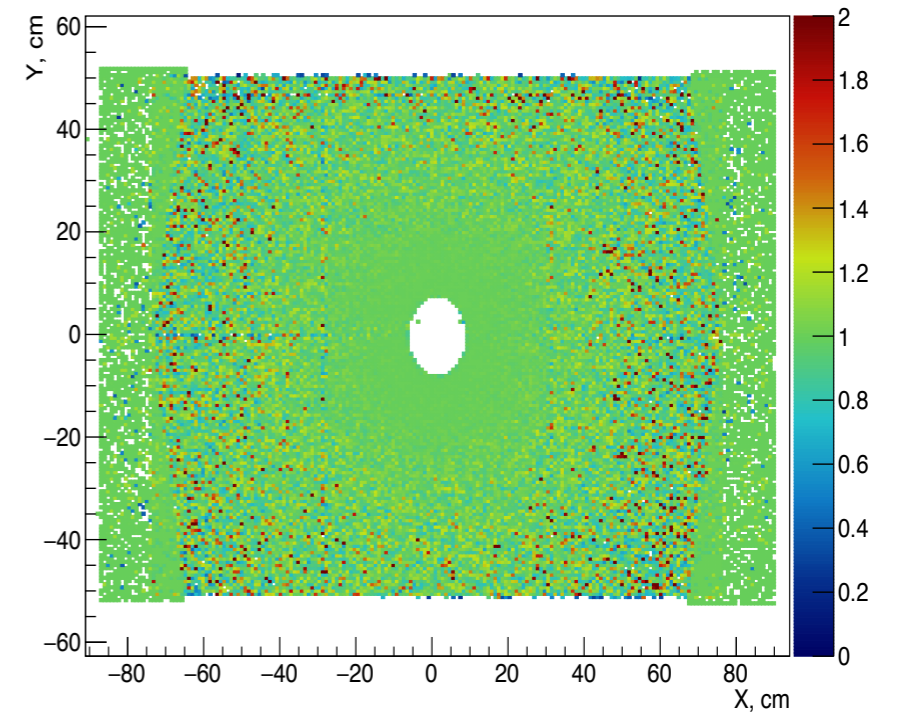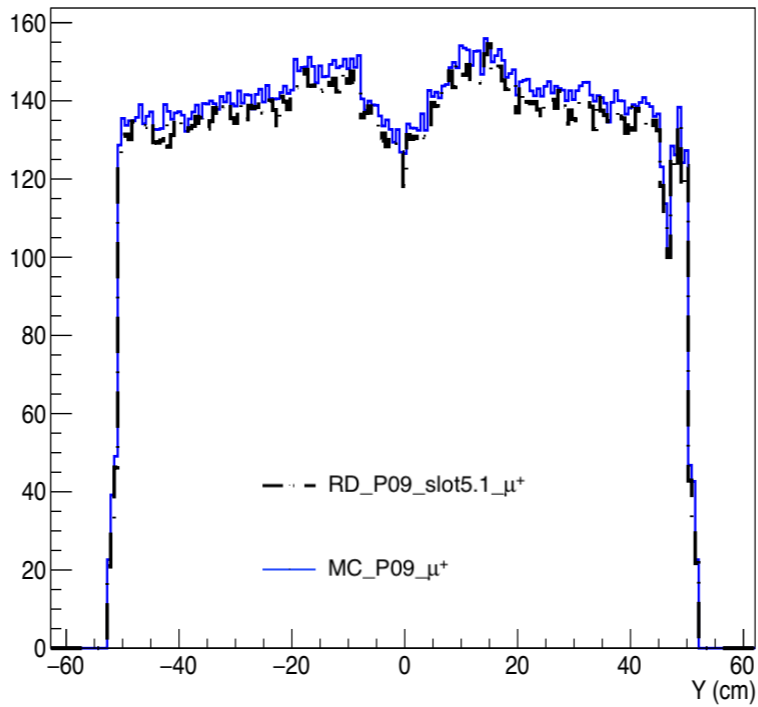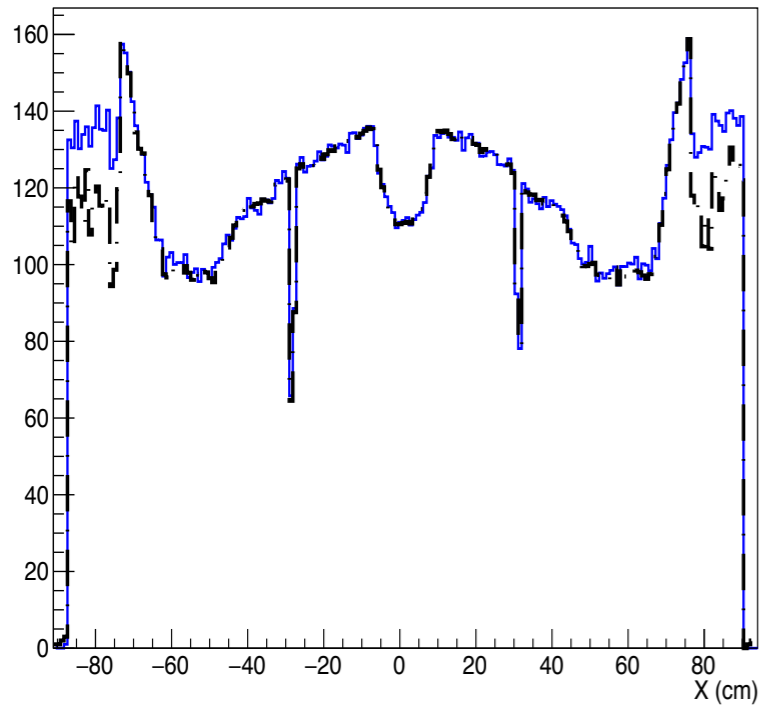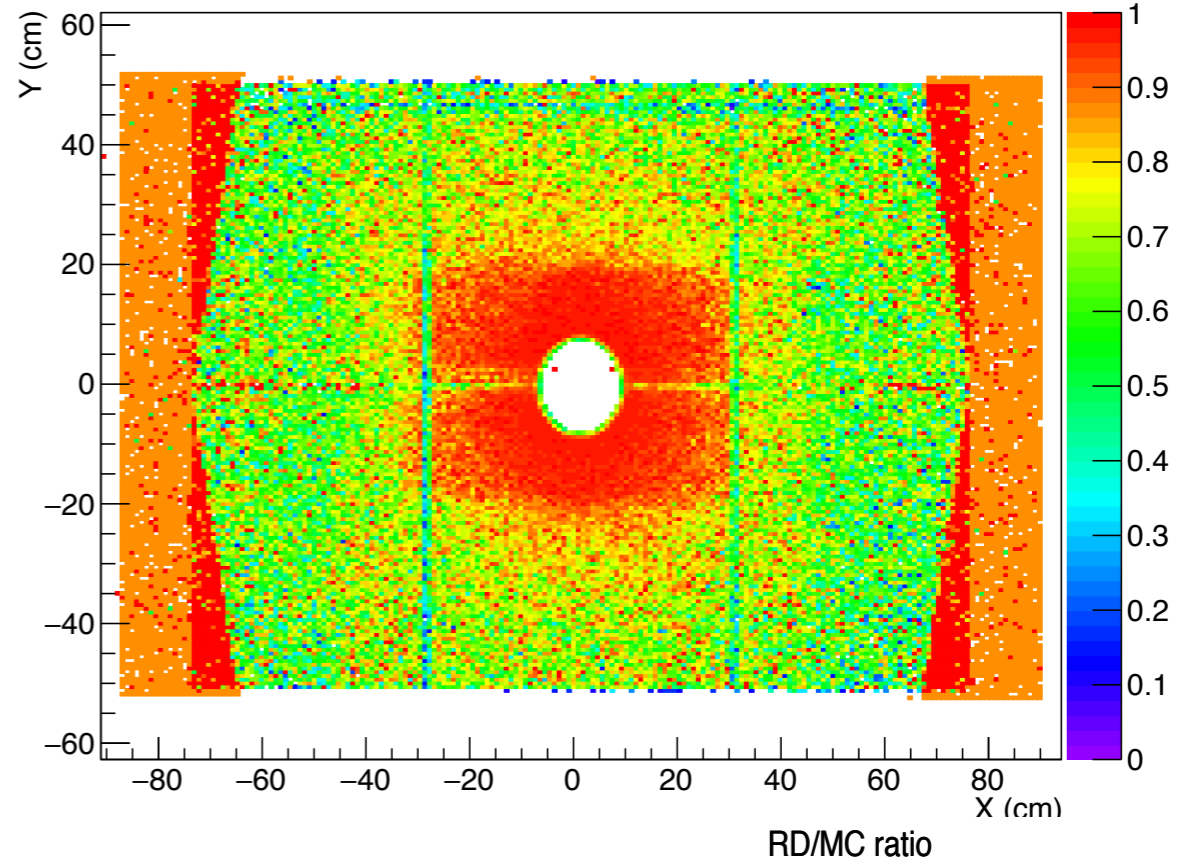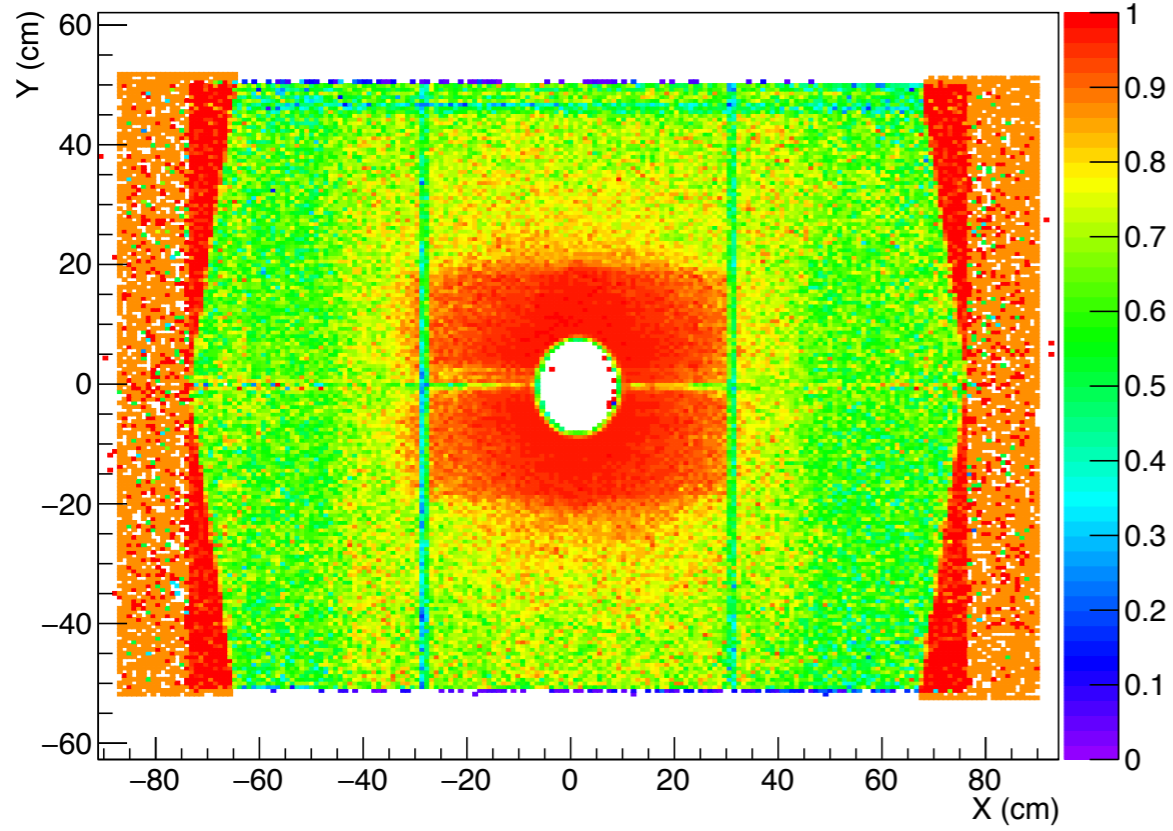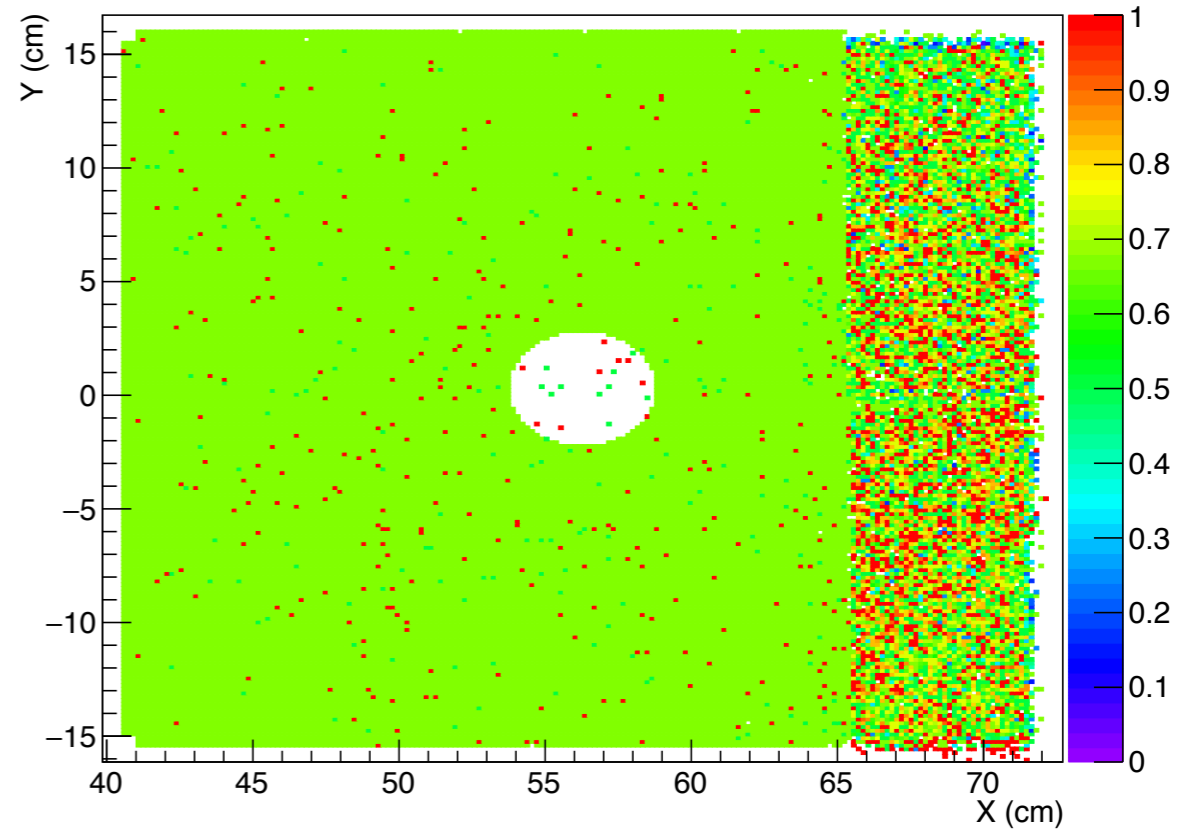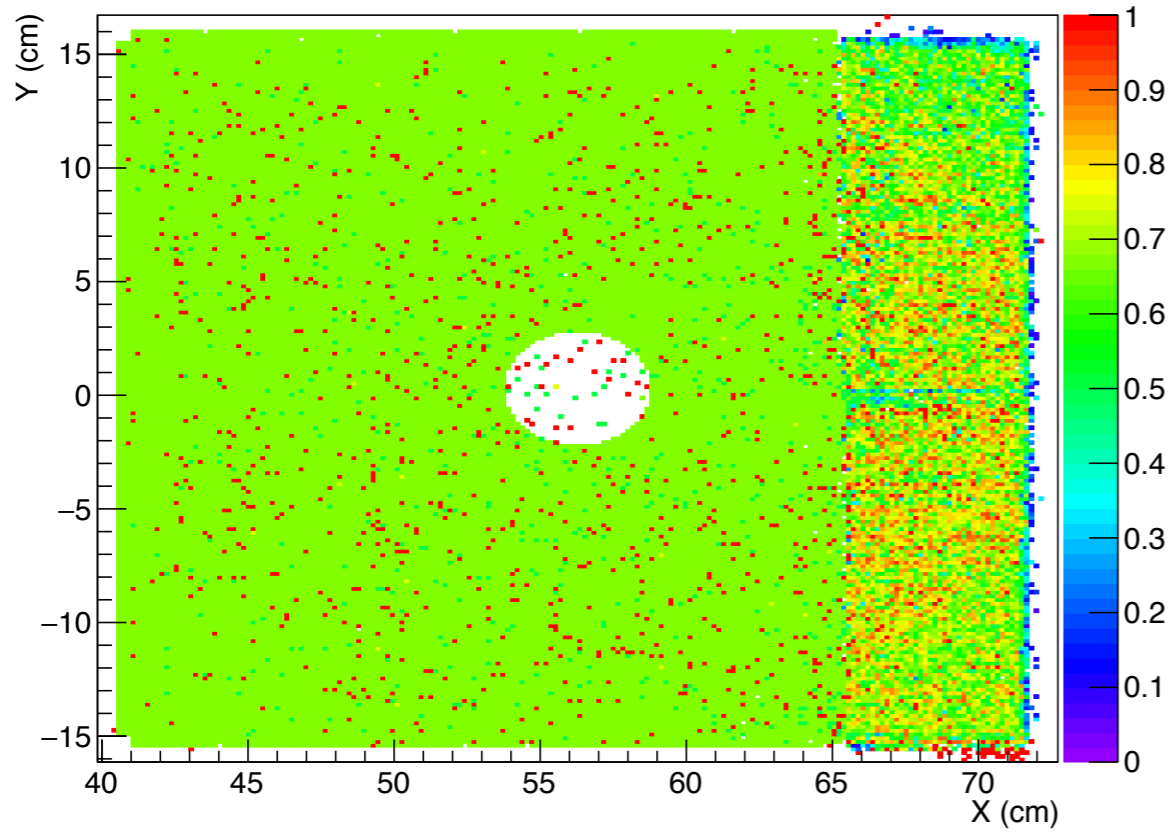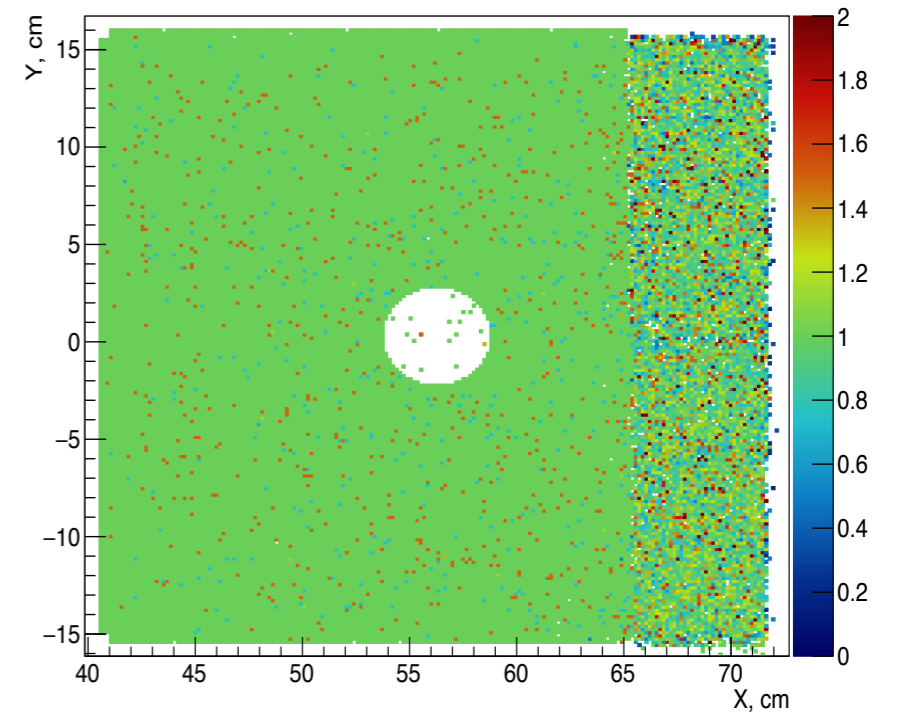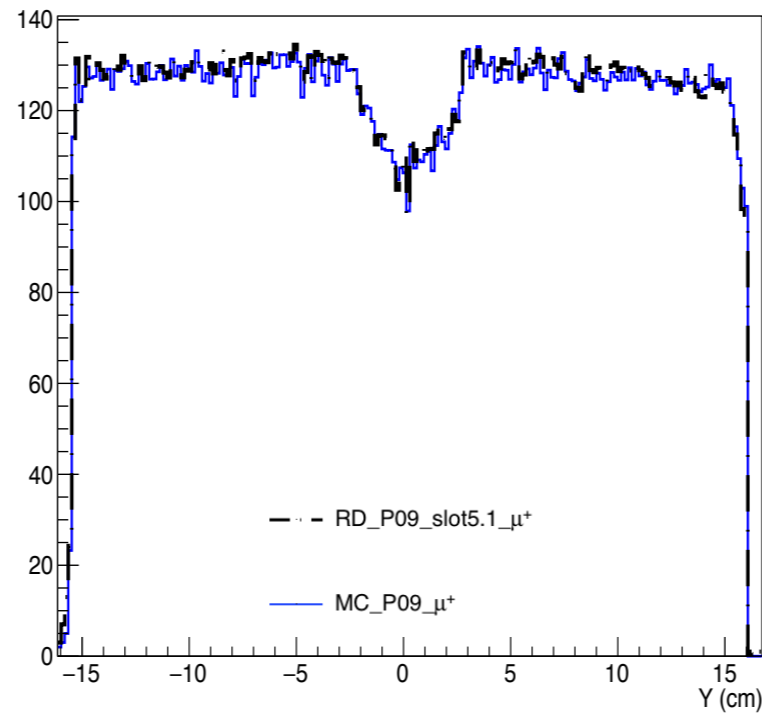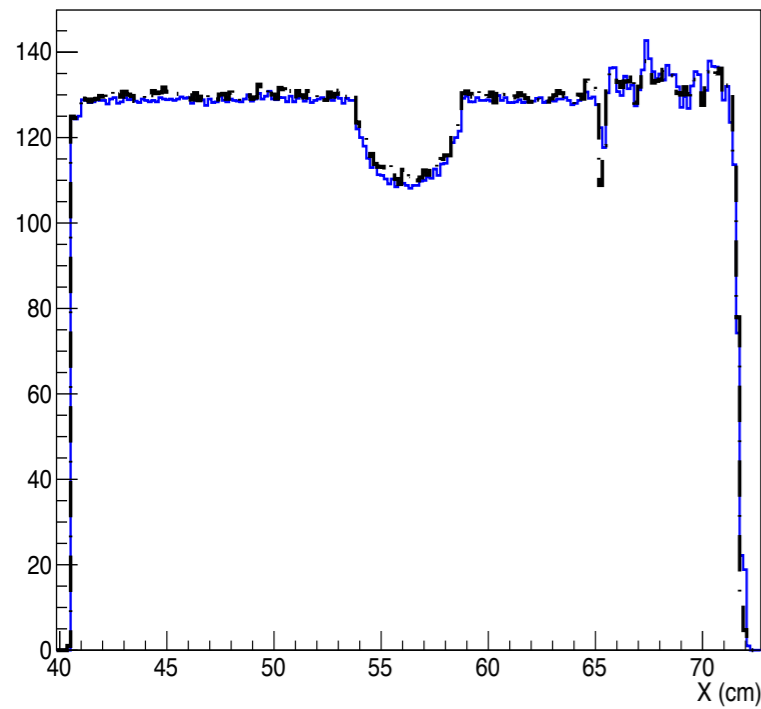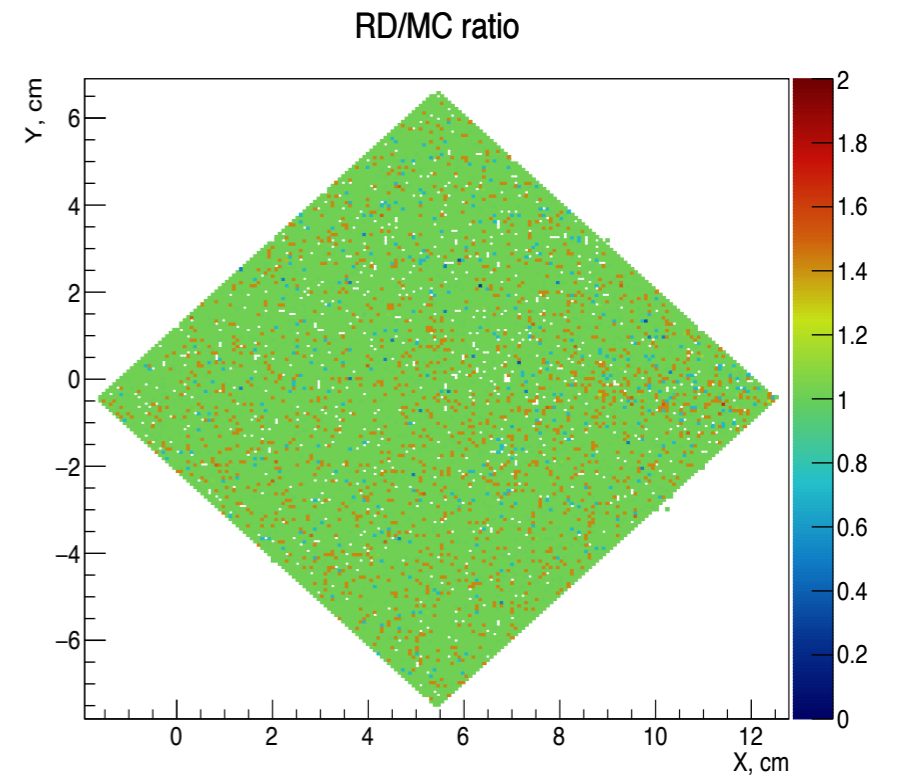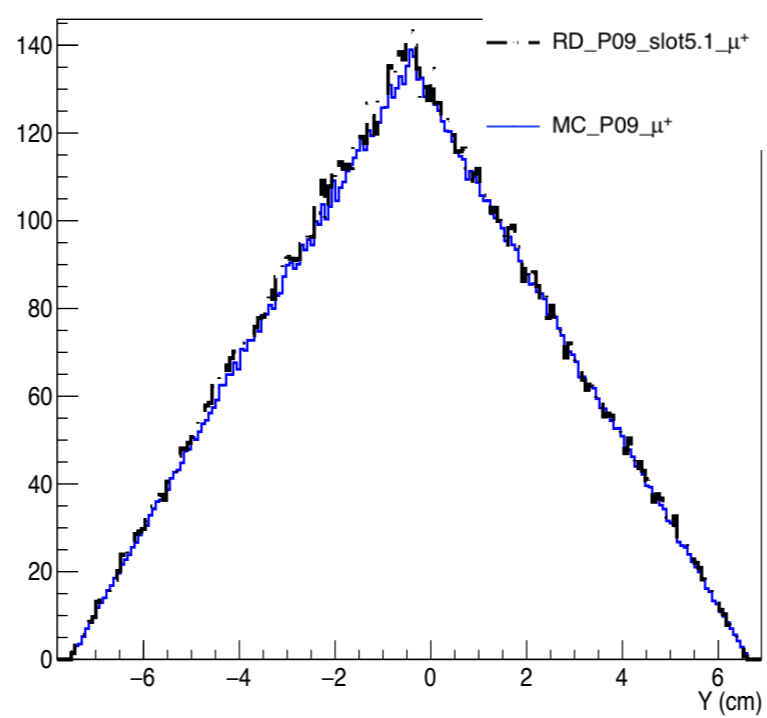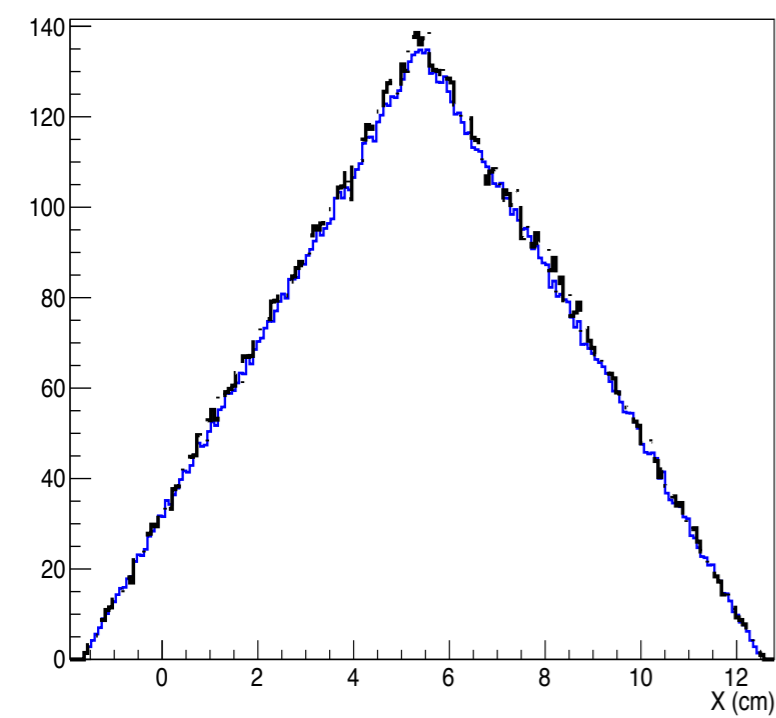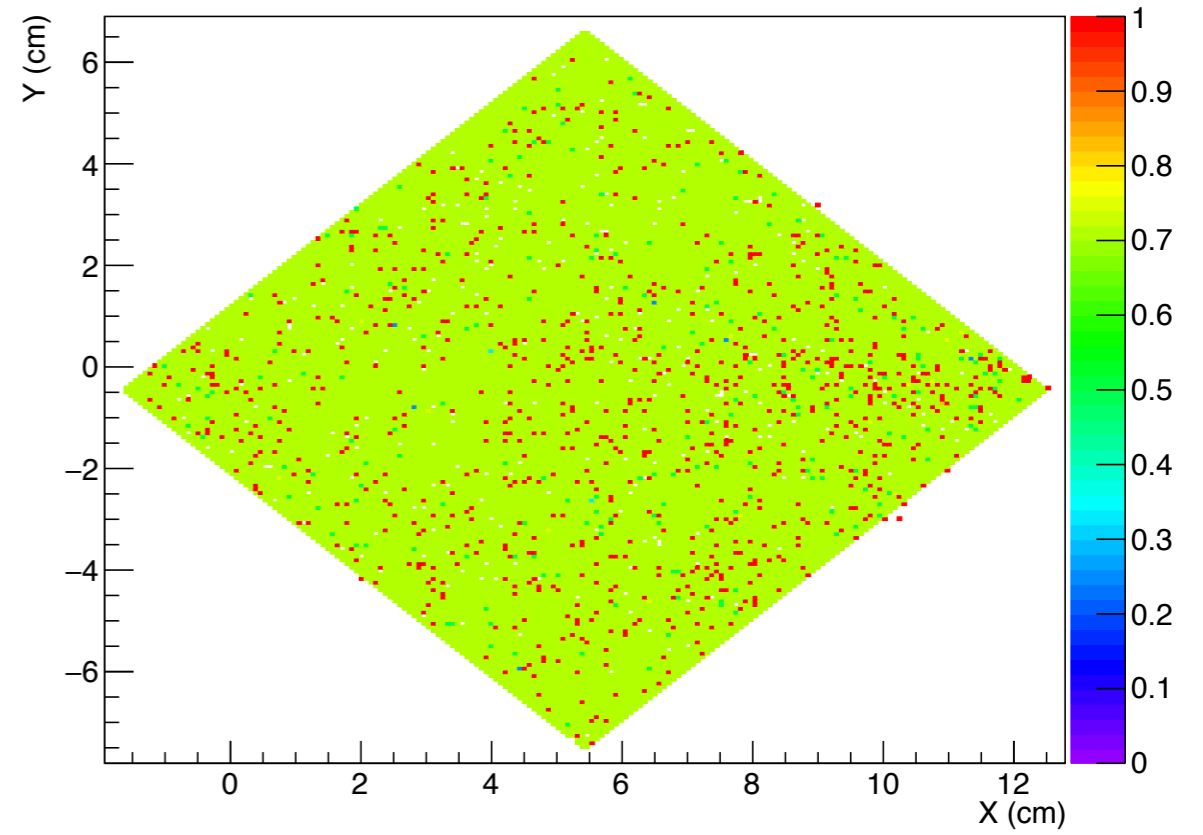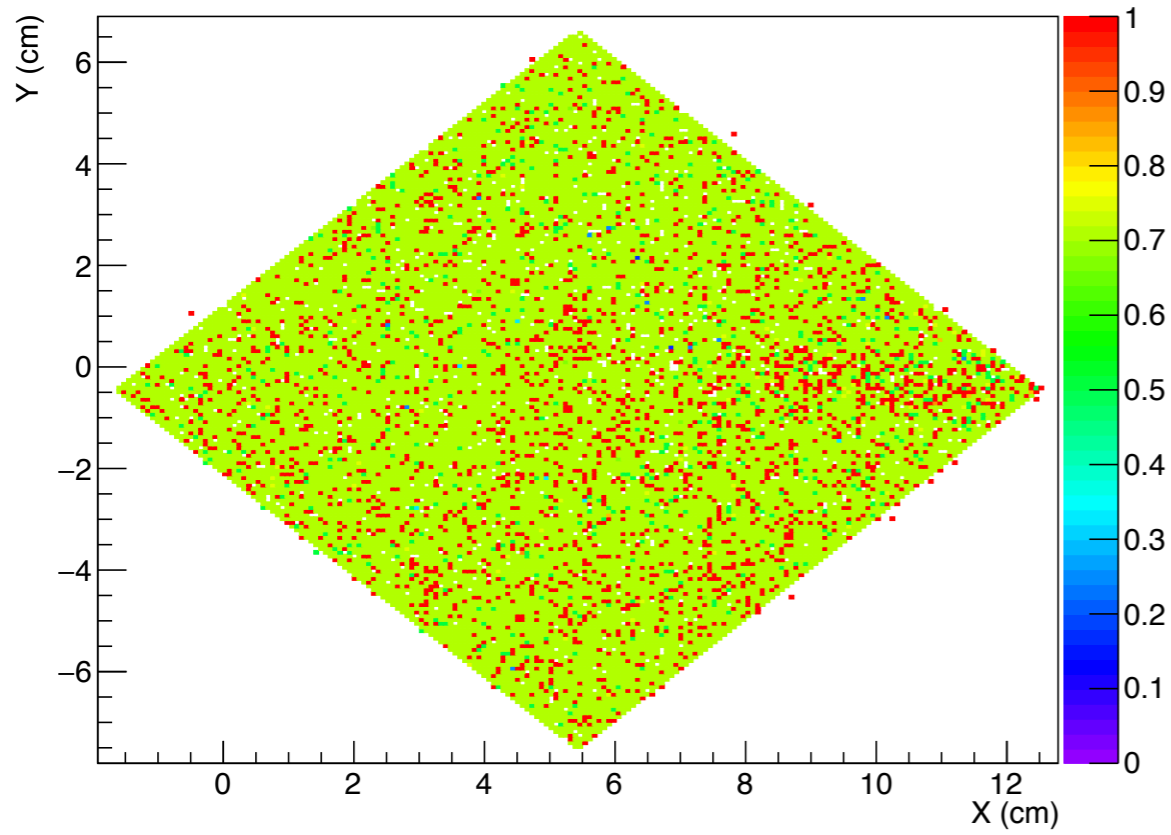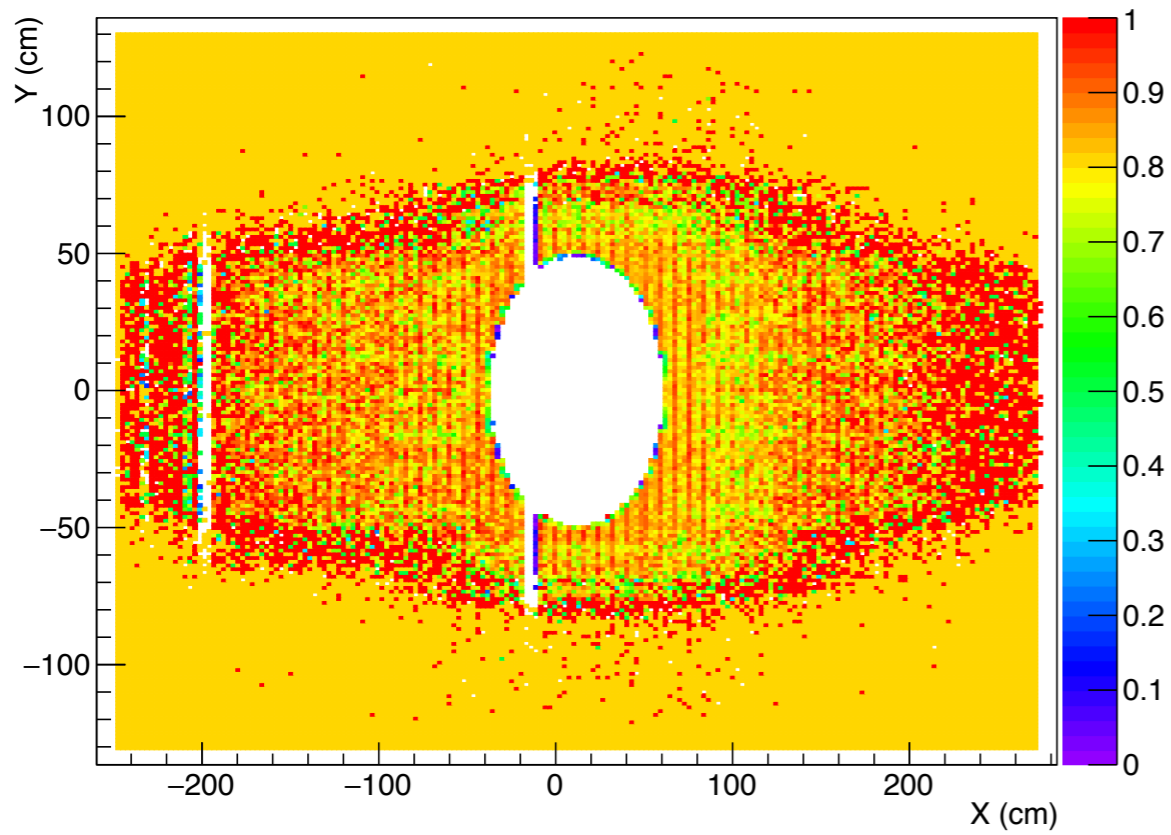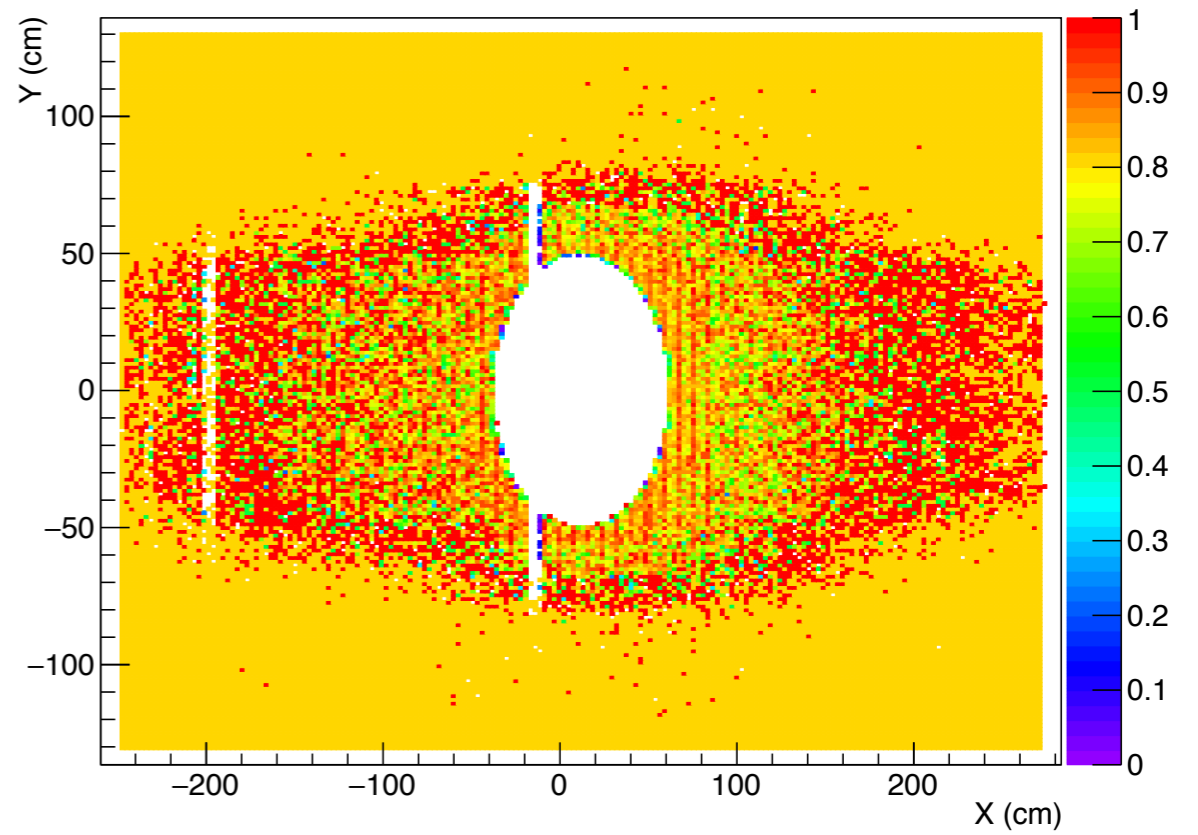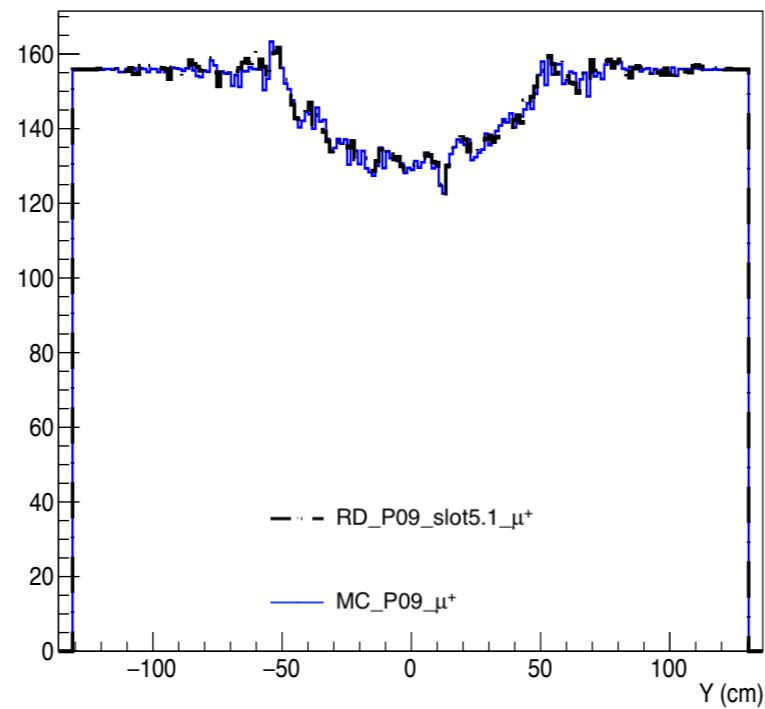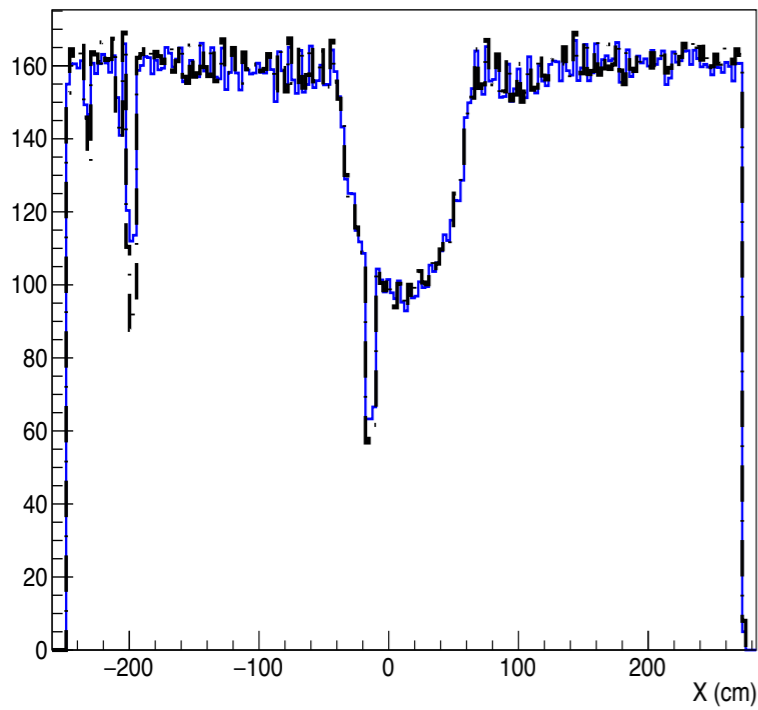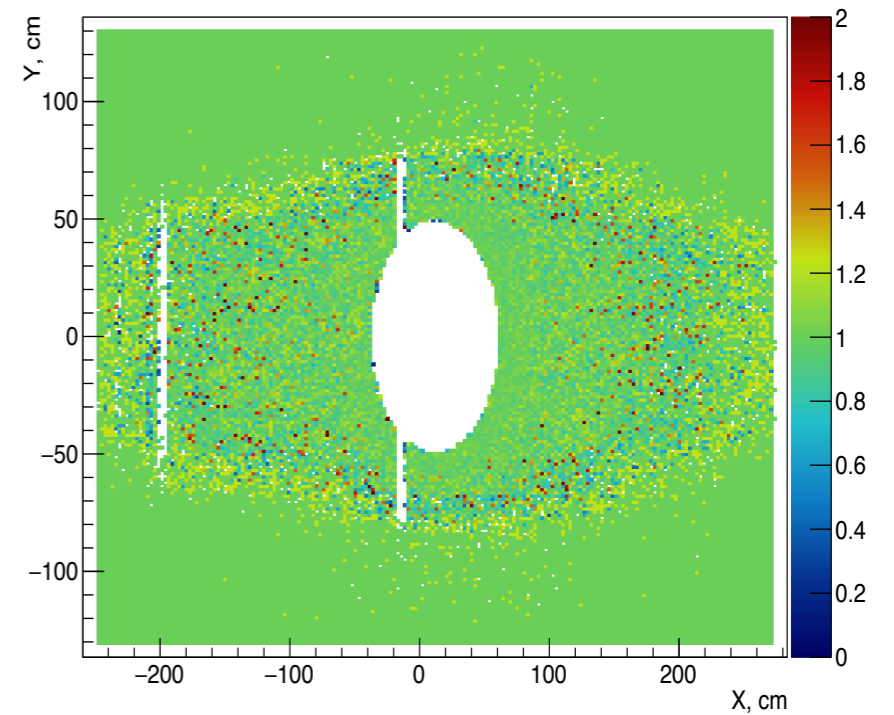
DW04Y1

RD

MC

RD/MC ratio

- - - RD_P09_slot5.1_μ⁺

—— MC_P09_μ⁺

HM04X1

RD

MC
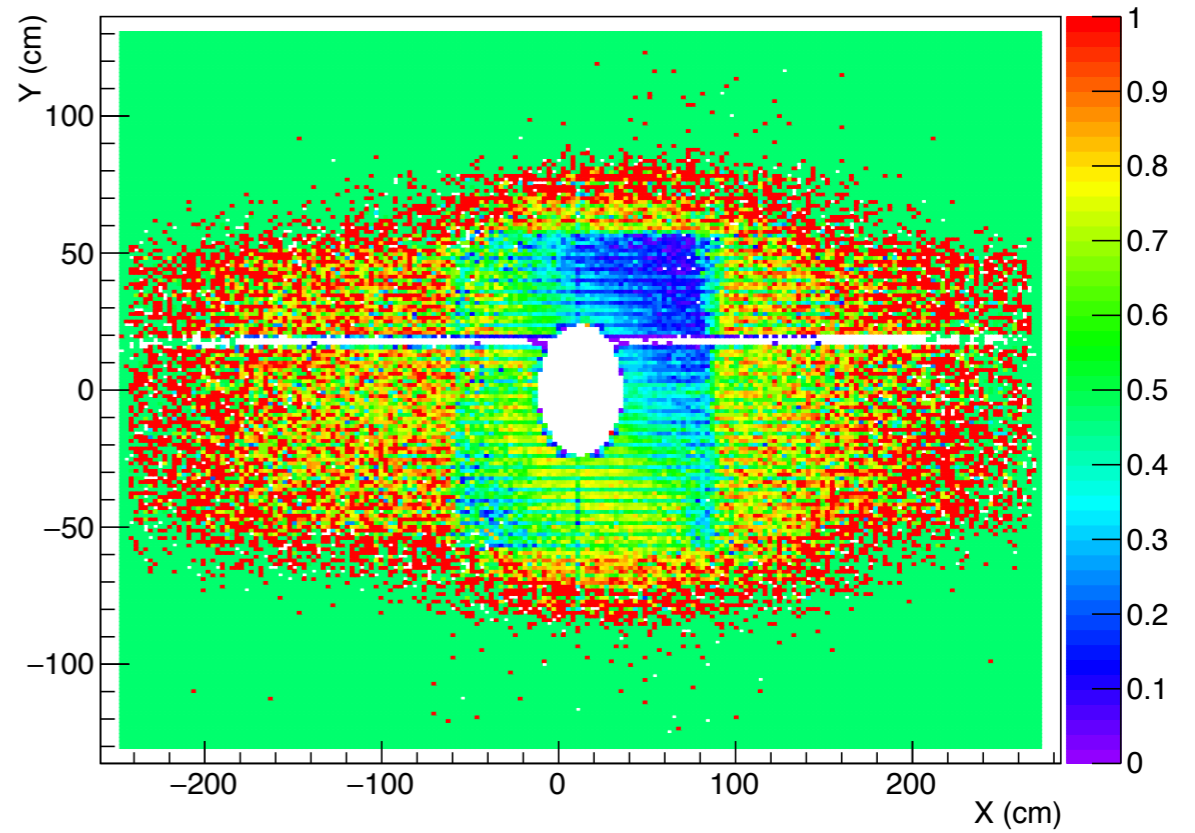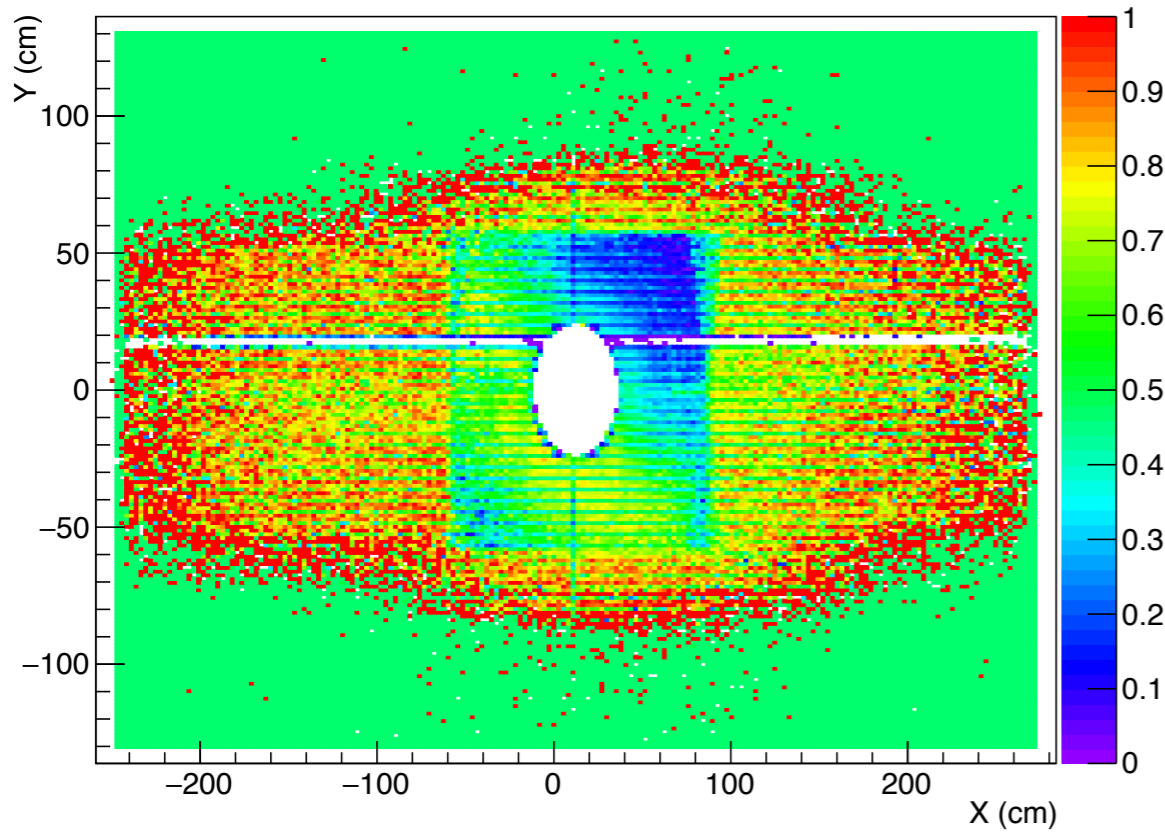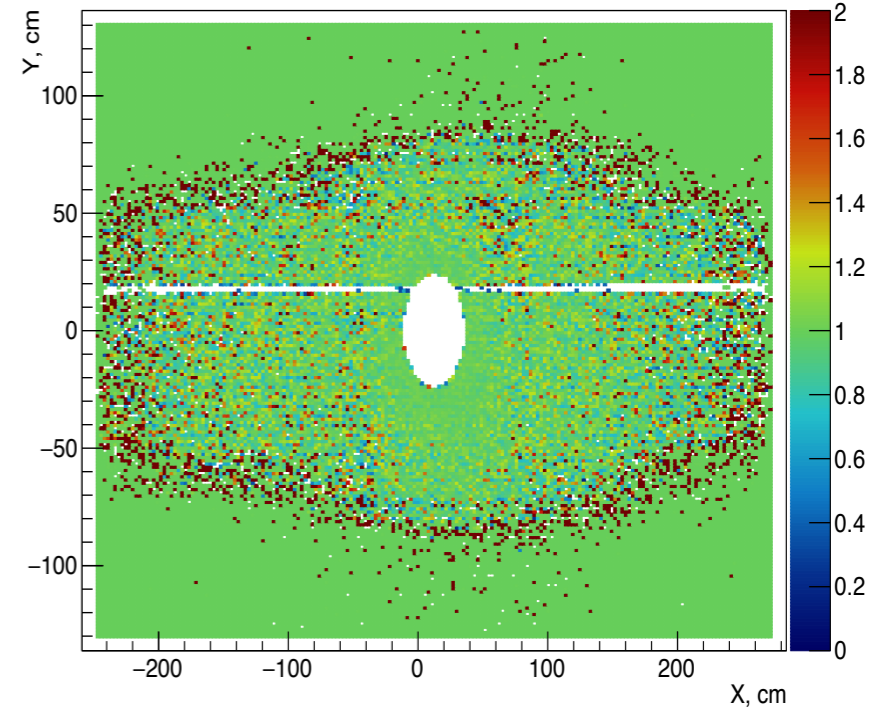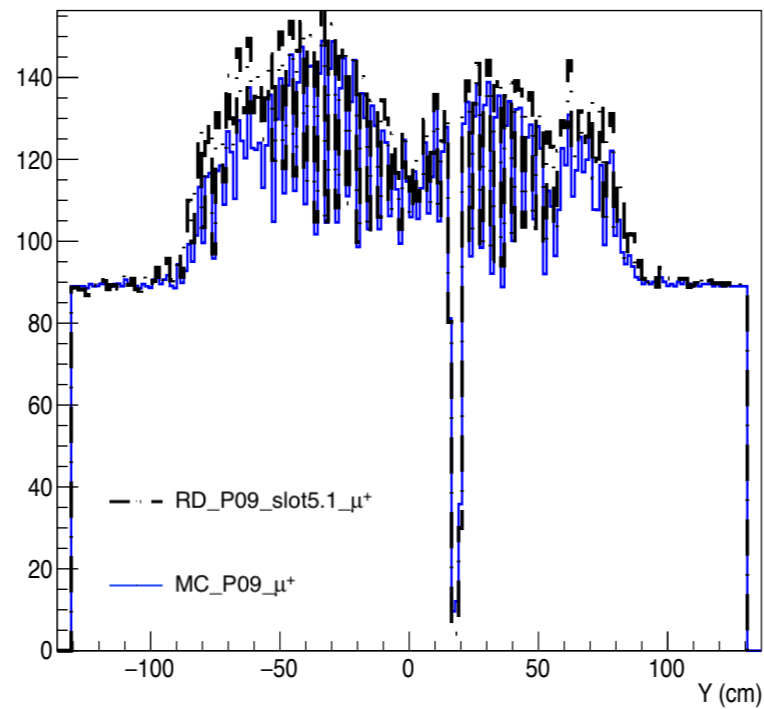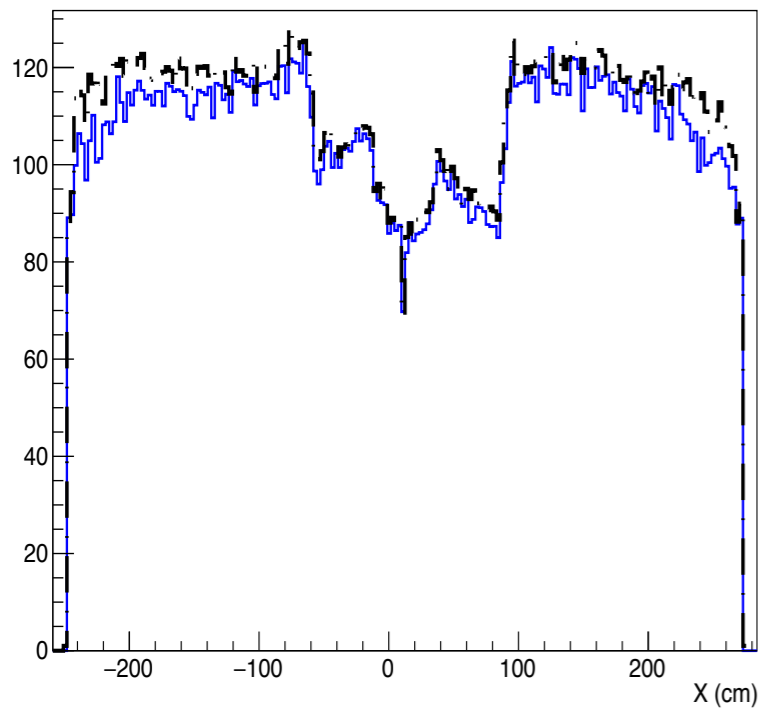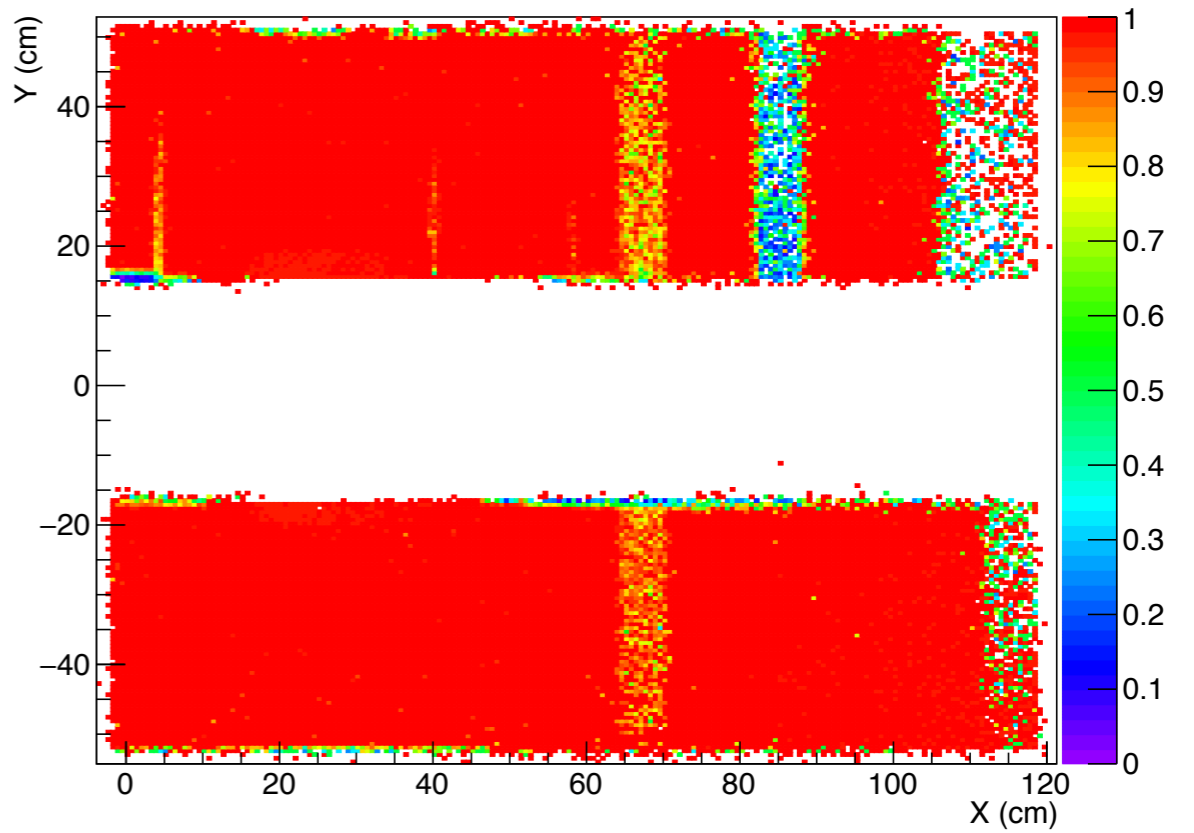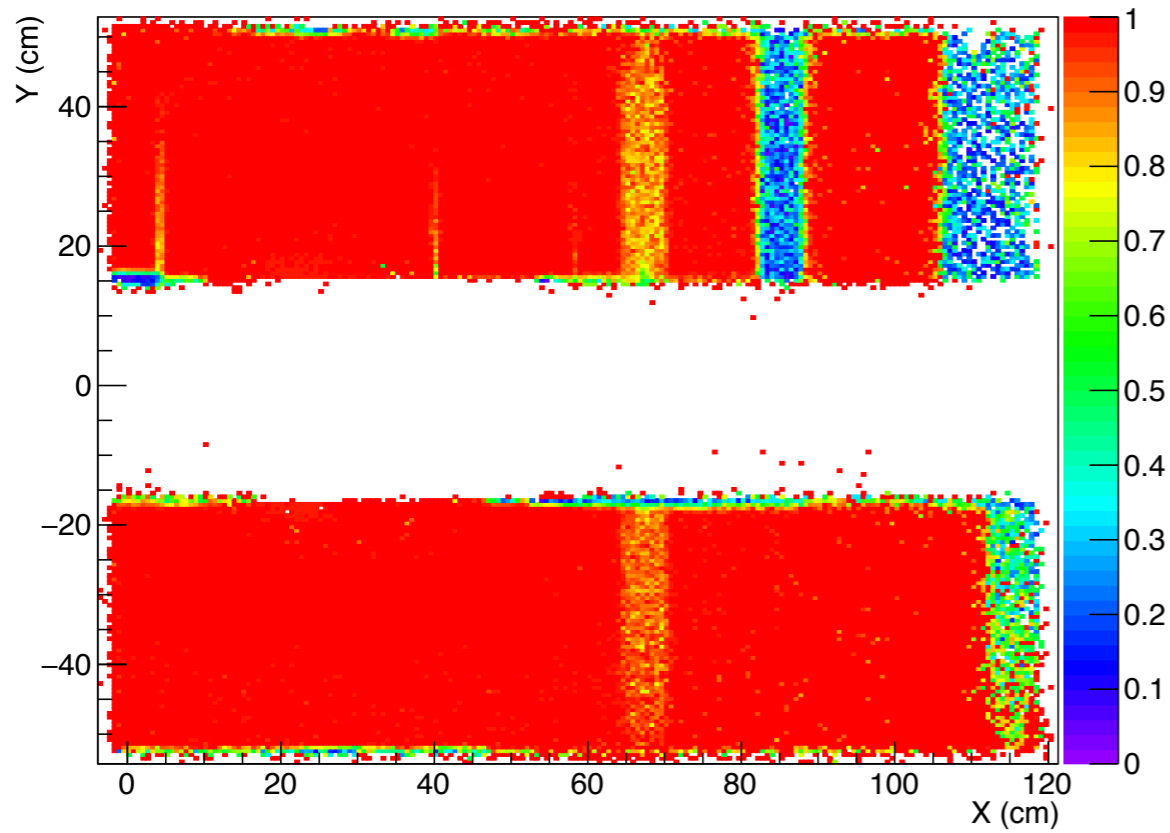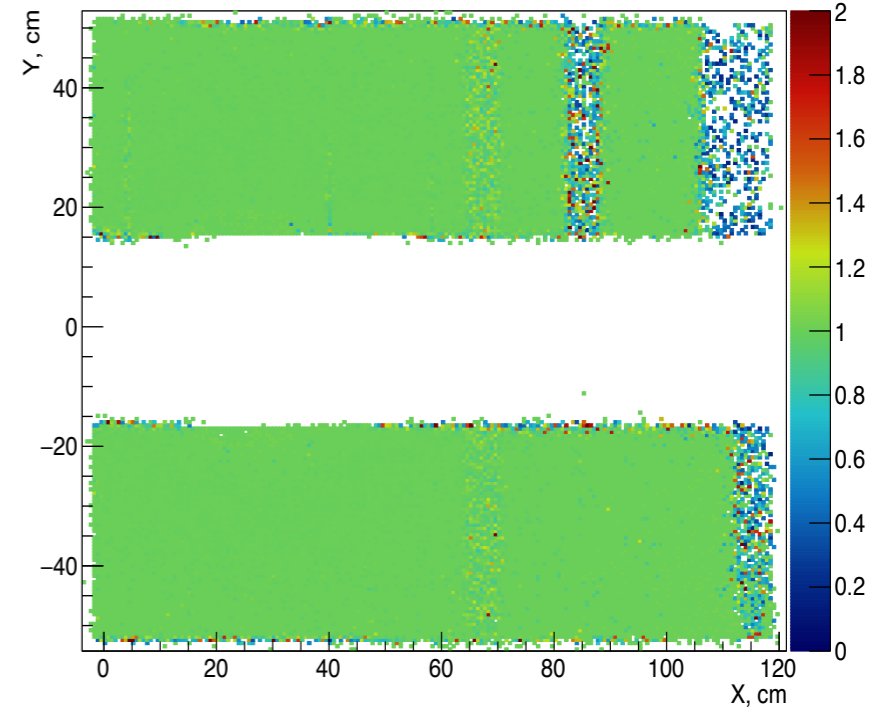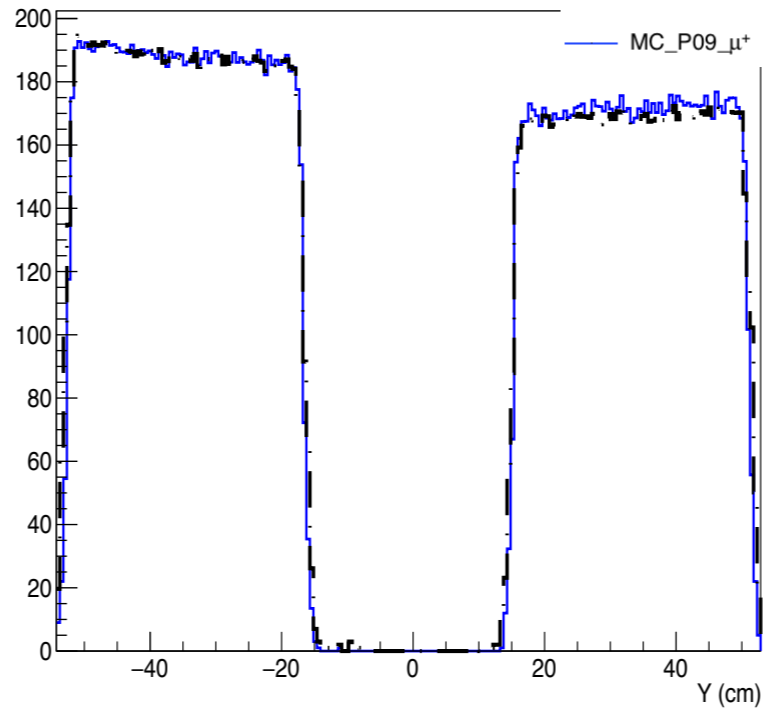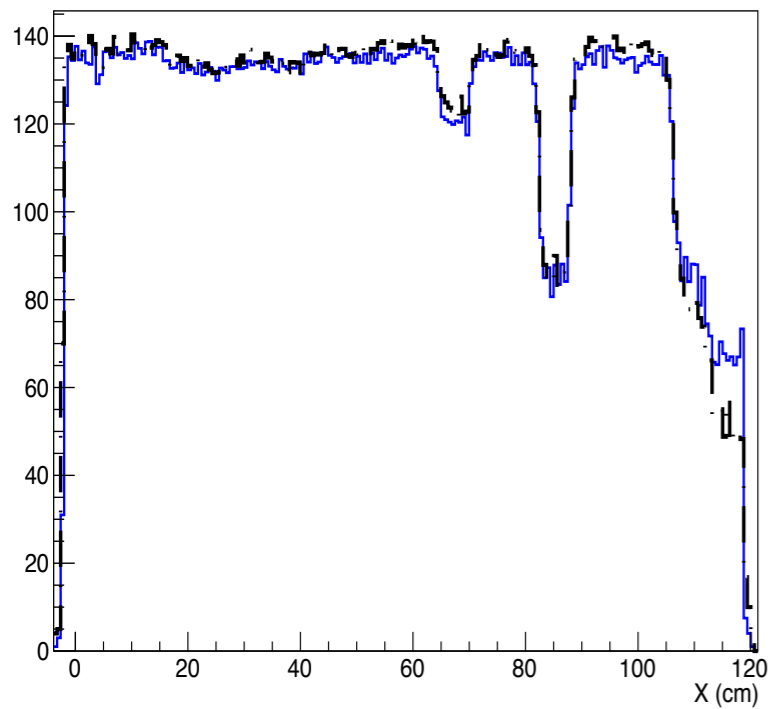
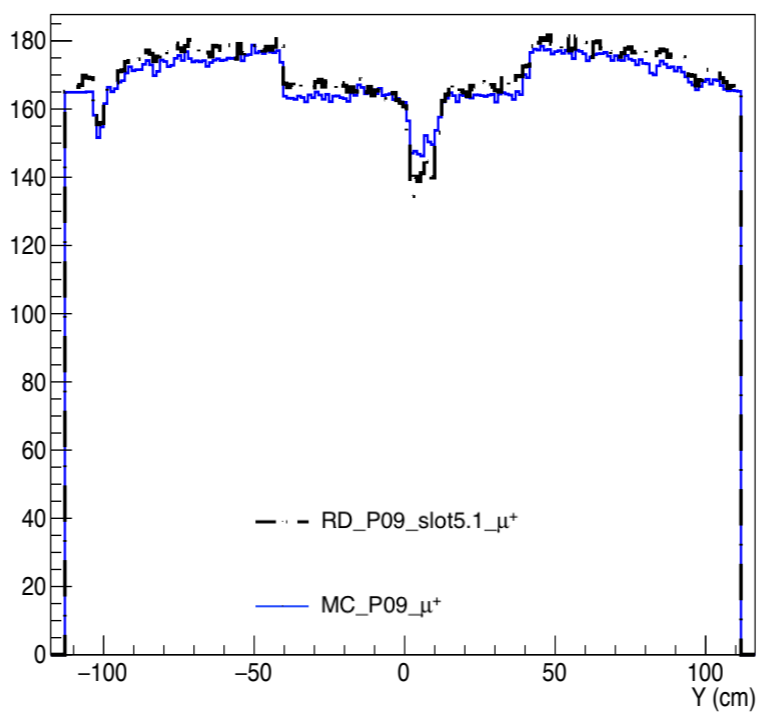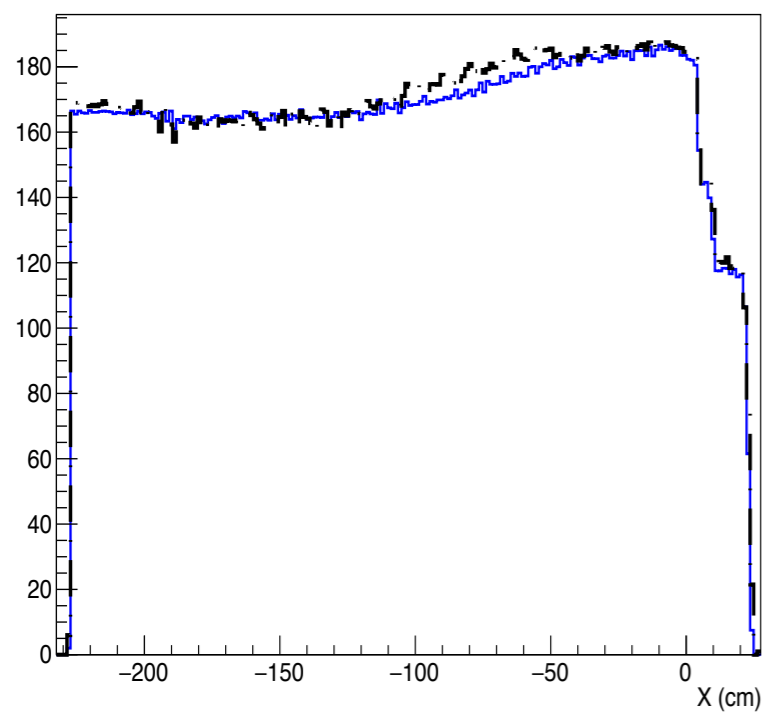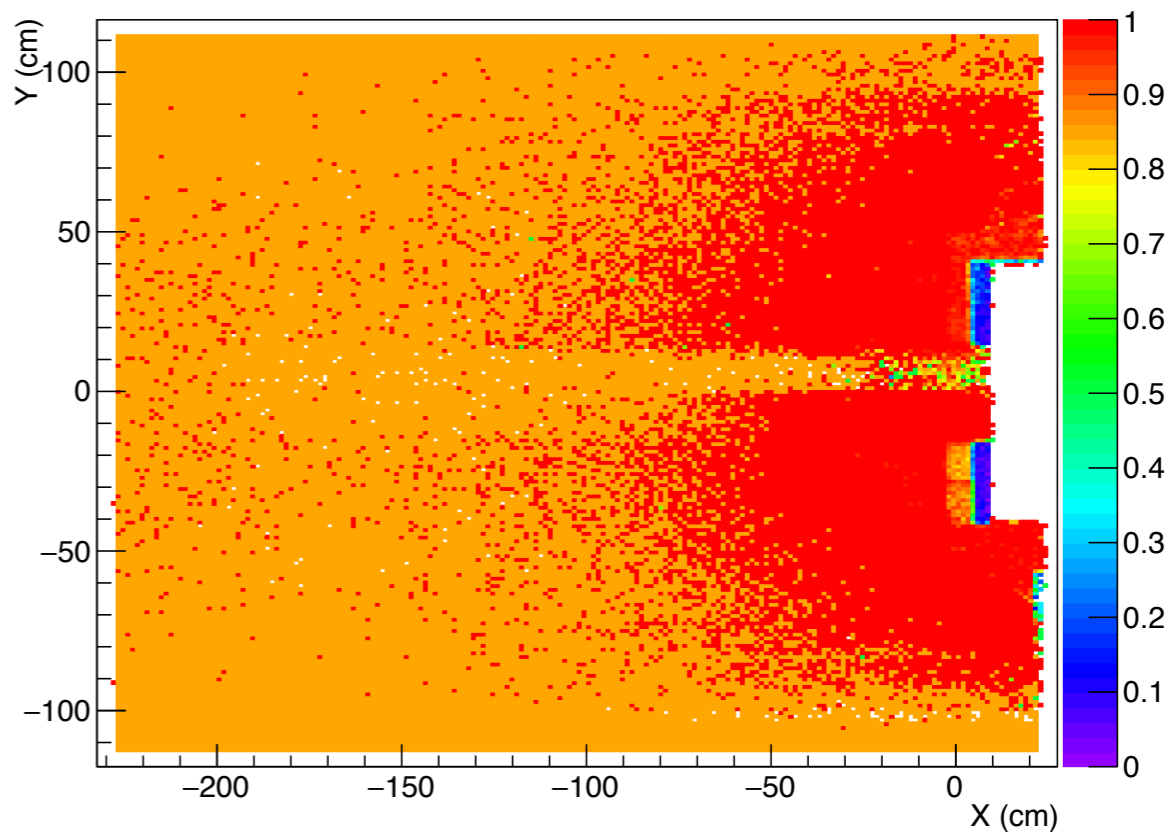**Problem was fixed.**

HO04Y2
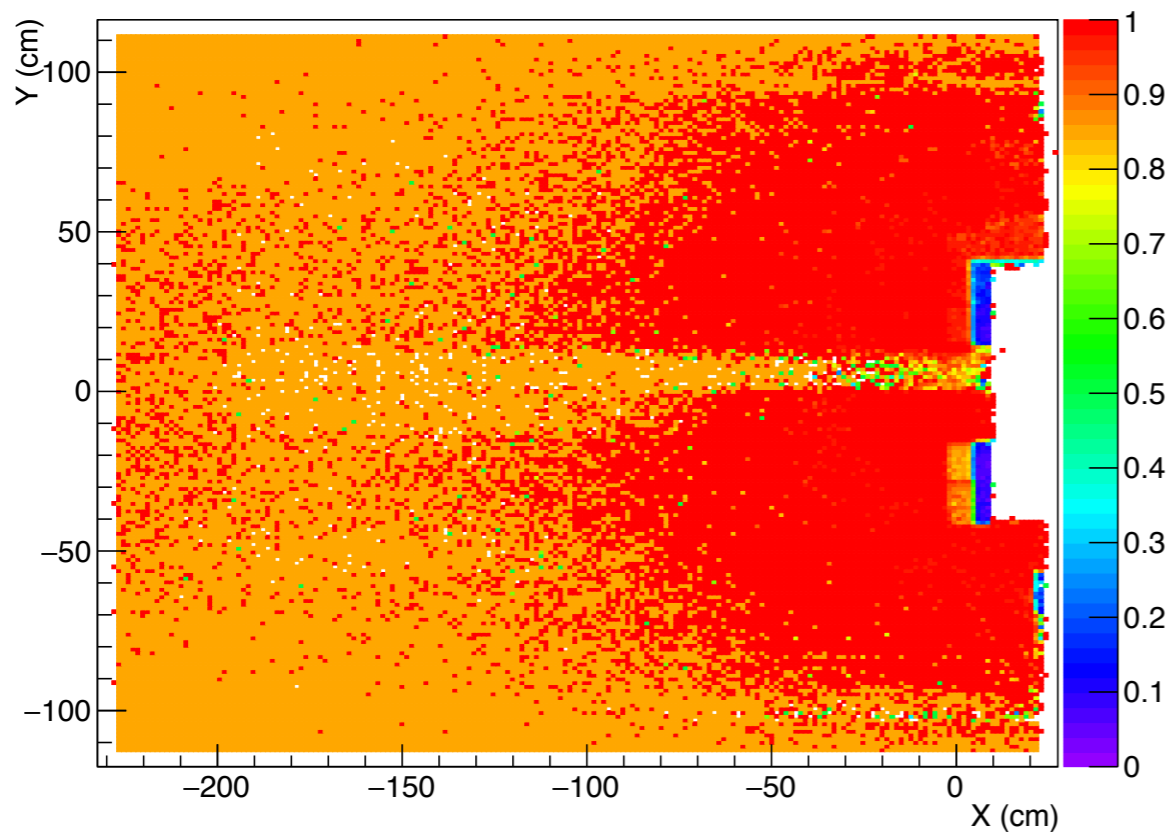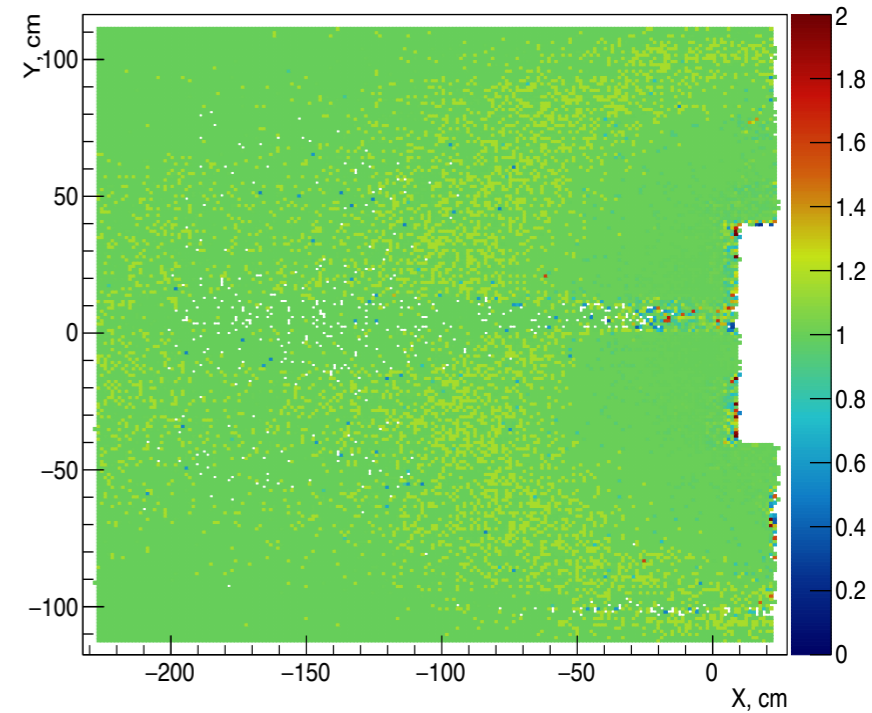
RD/MC ratio

The problem with the slab was fixed

24

ST03X1

ST03X1 pseudo-efficiency (Z = 536 cm), mean = 0.8785 ± 0.0036

ST03X1 pseudo-efficiency (Z = 536 cm), mean = 0.8694 ± 0.0075
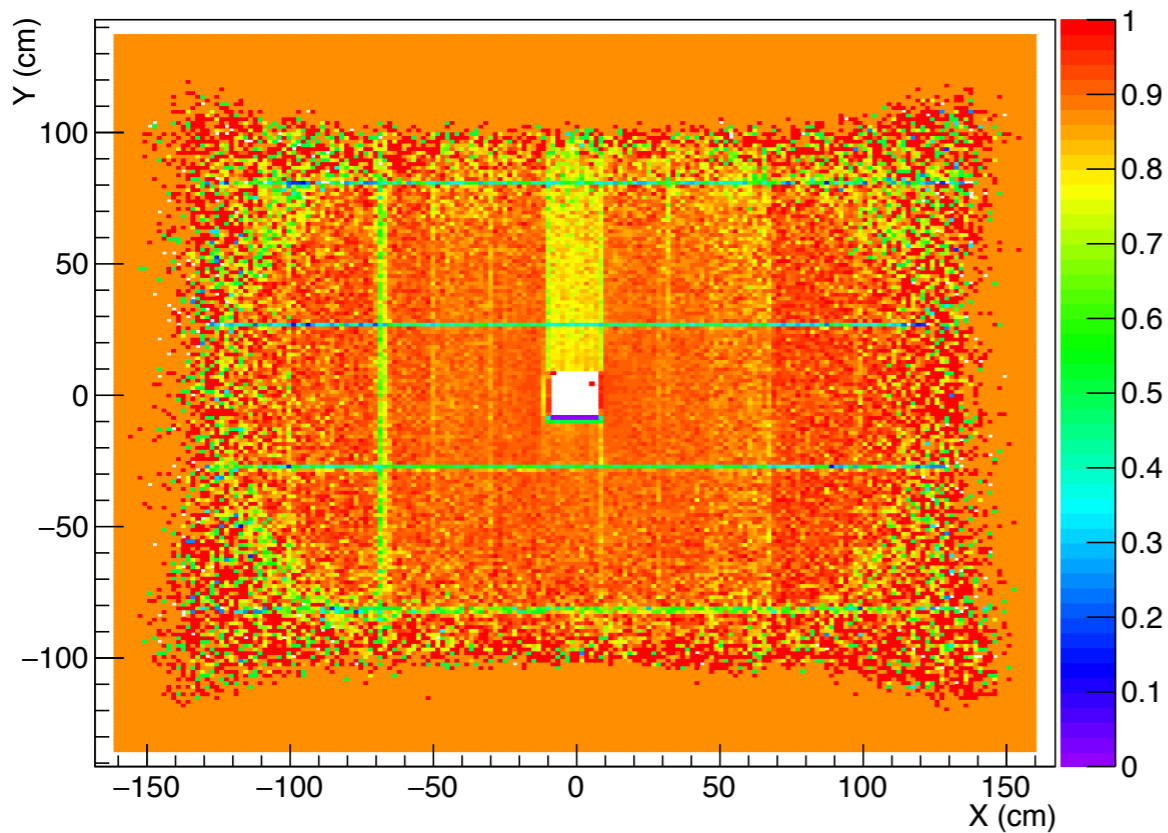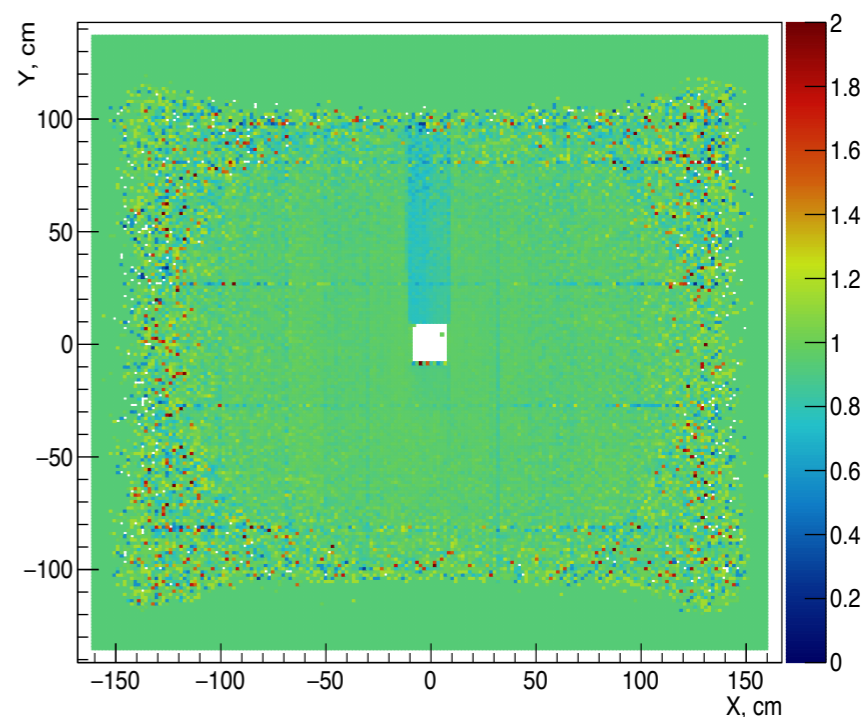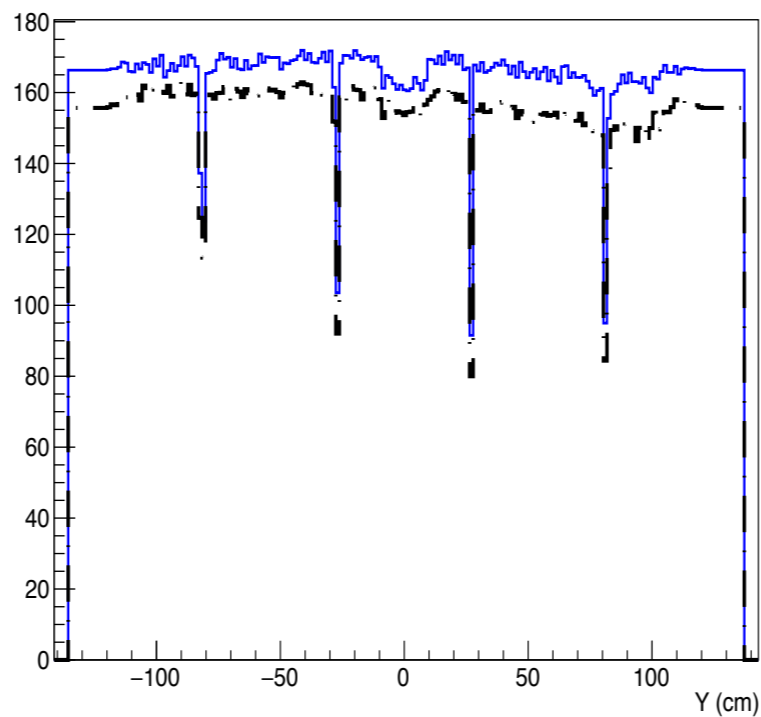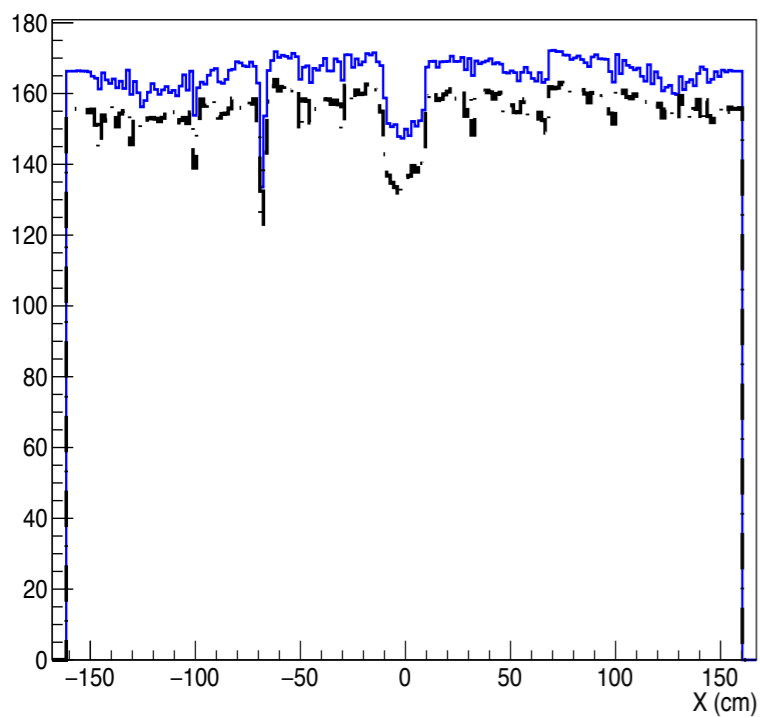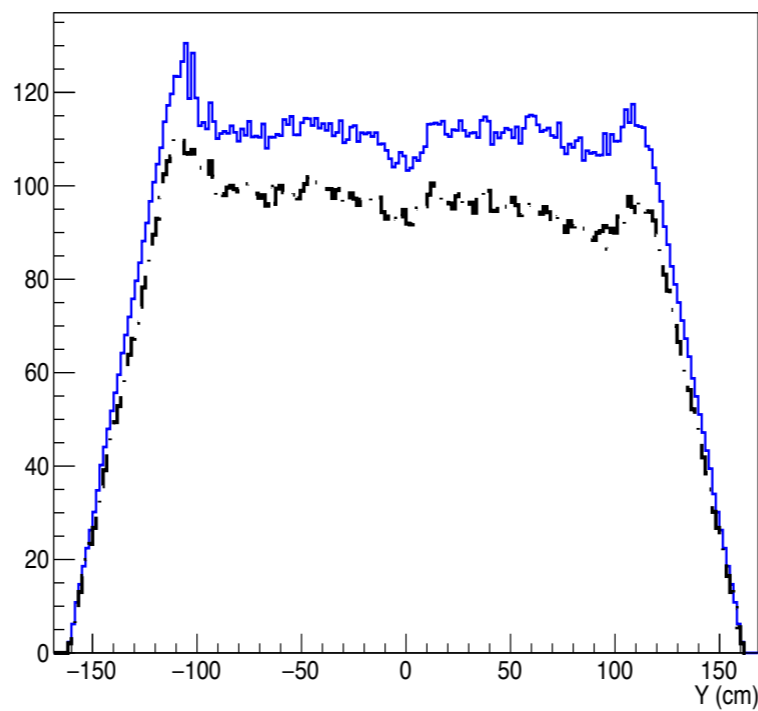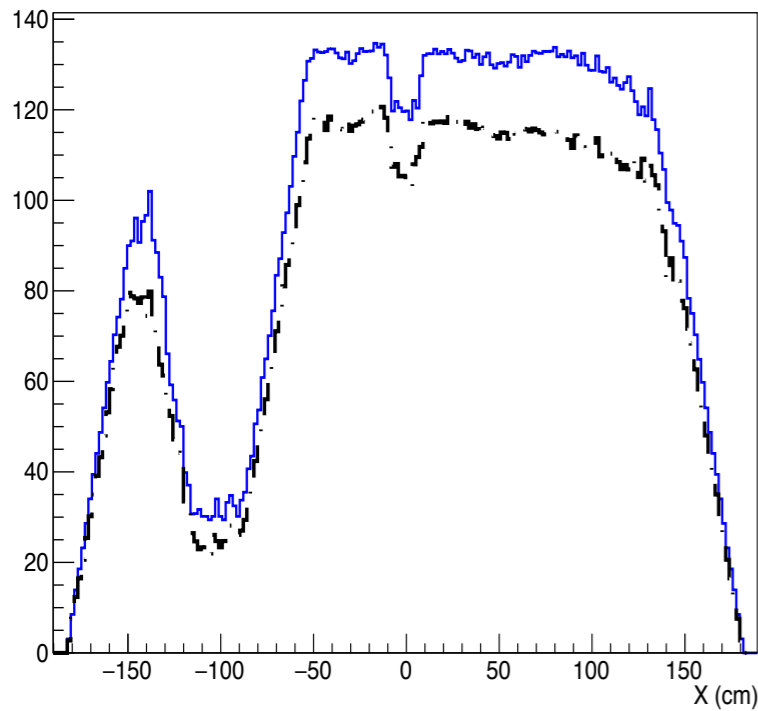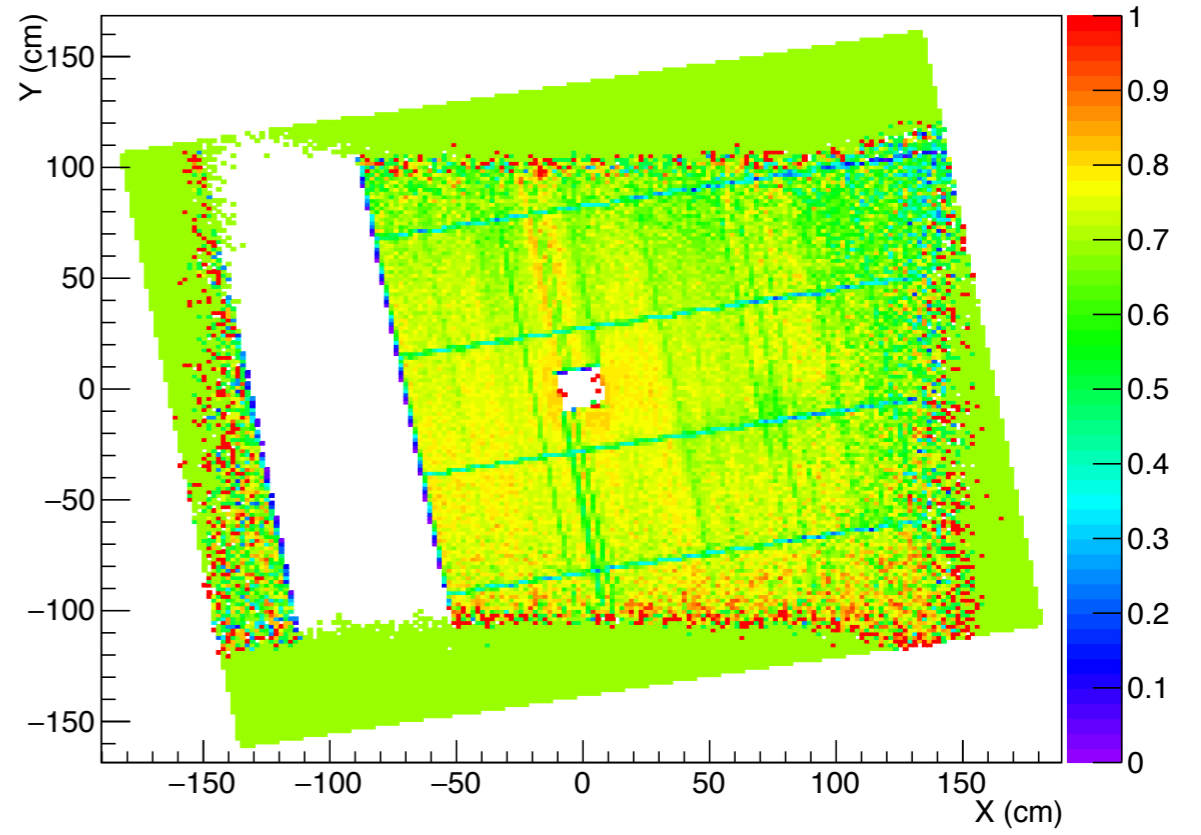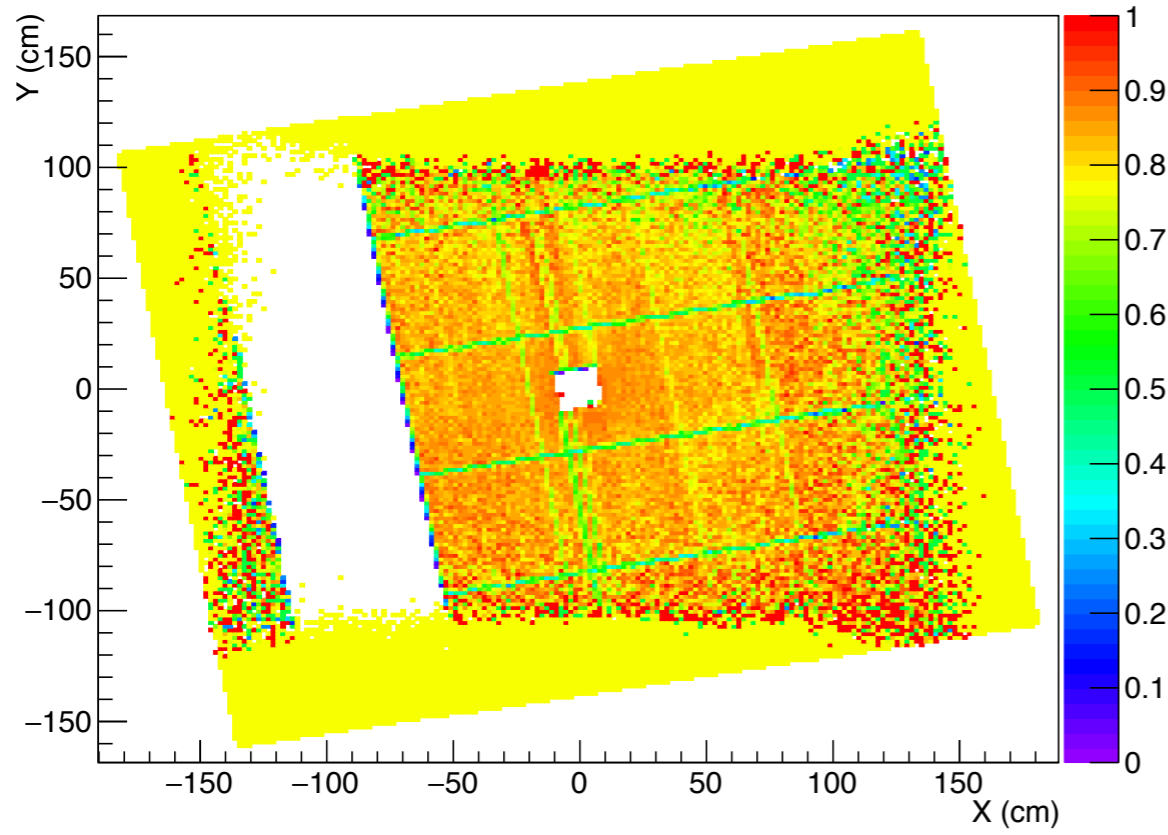
RD/MC ratio

25
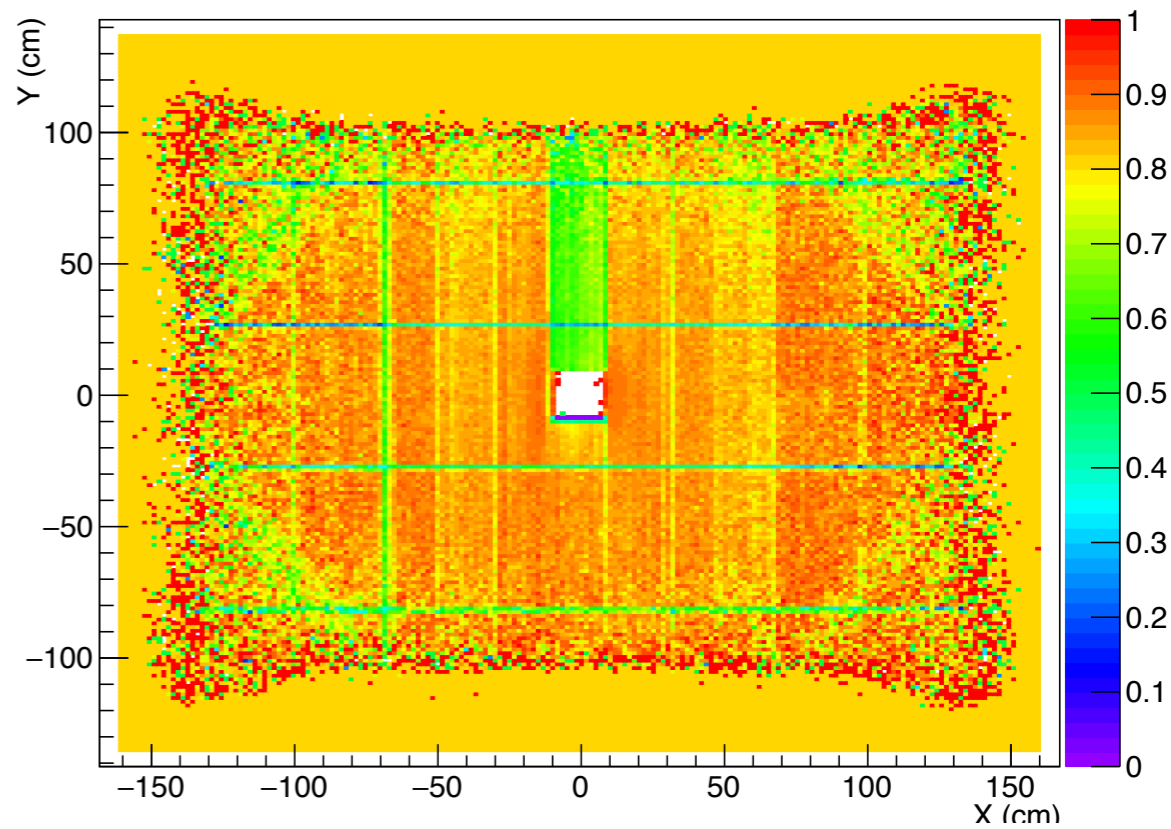
ST03U1

ST03U1 pseudo-efficiency (Z = 544 cm), mean = 0.7776 ± 0.0046

ST03U1 pseudo-efficiency (Z = 544 cm), mean = 0.7740 ± 0.0093

RD/MC ratio