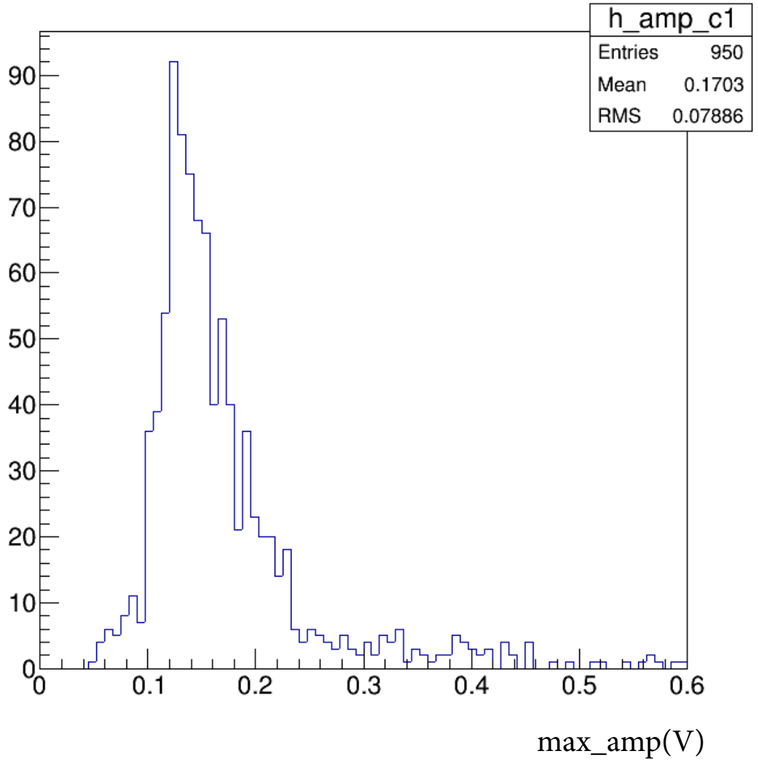
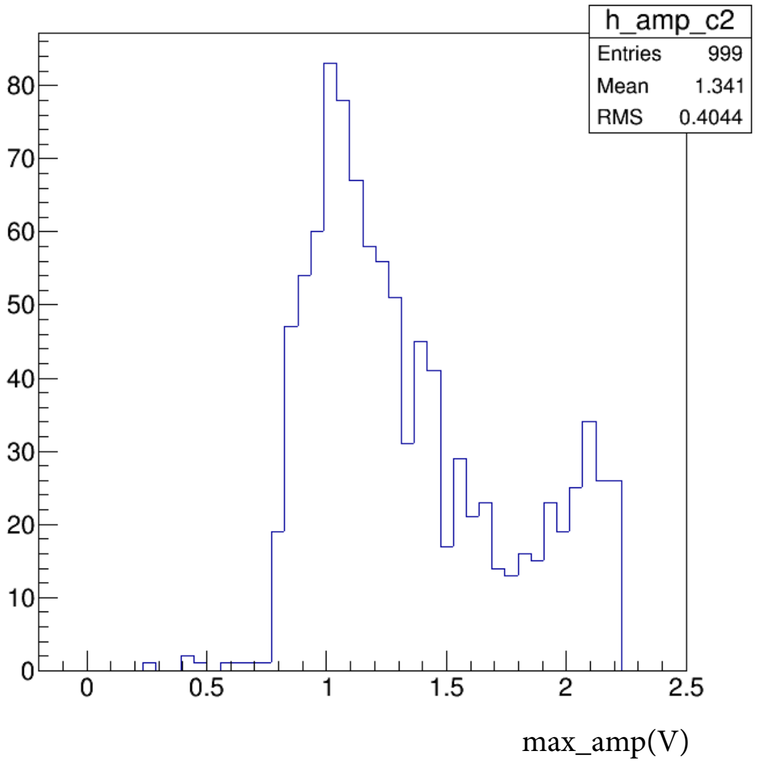
Thickness: 285 μm Radiation dose: non-irr

Thickness: 285 μm T:-20°C Vbias:50V Radiation dose: non-irr

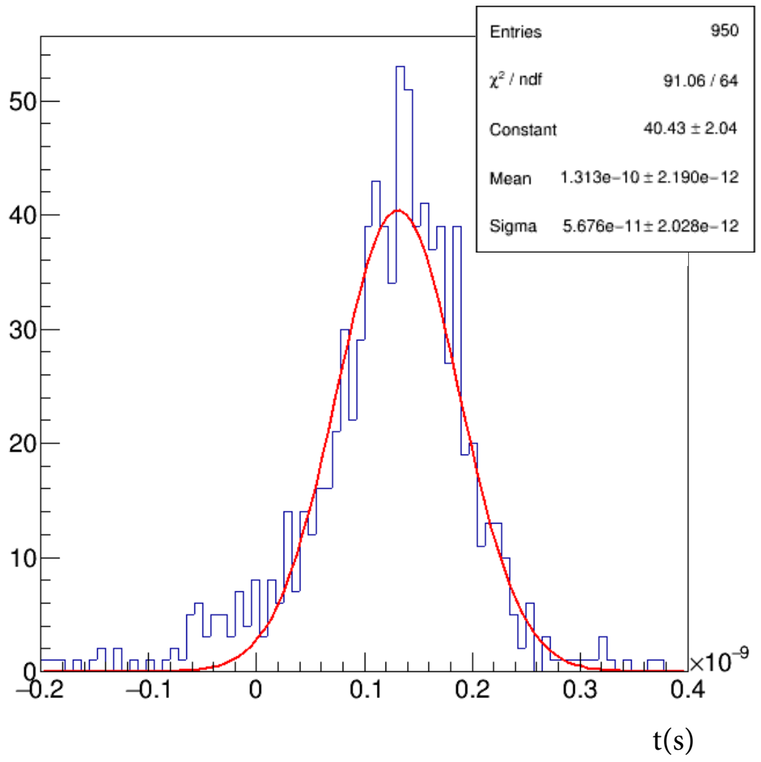
3D



LGAD

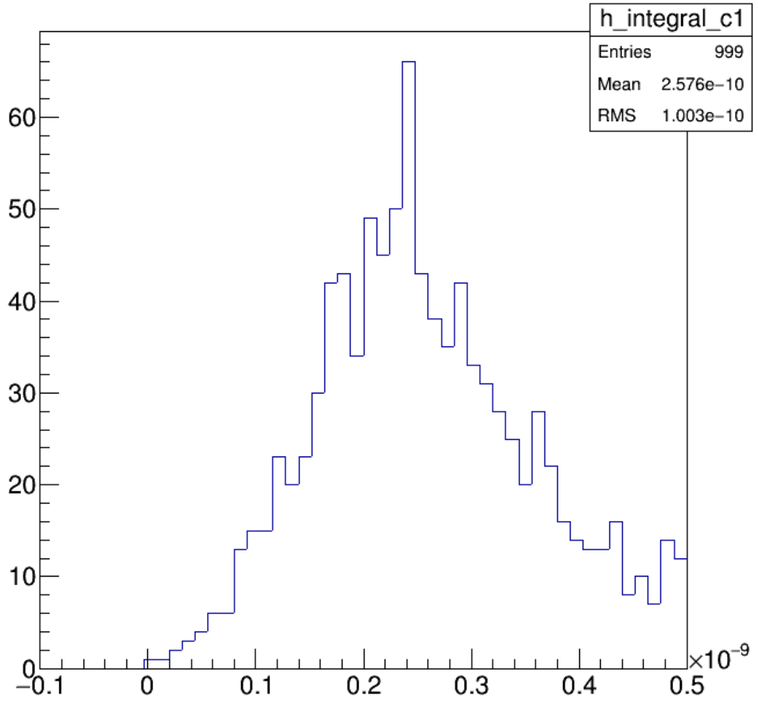


$\Delta t = t_{LGAD} - t_{3D}$



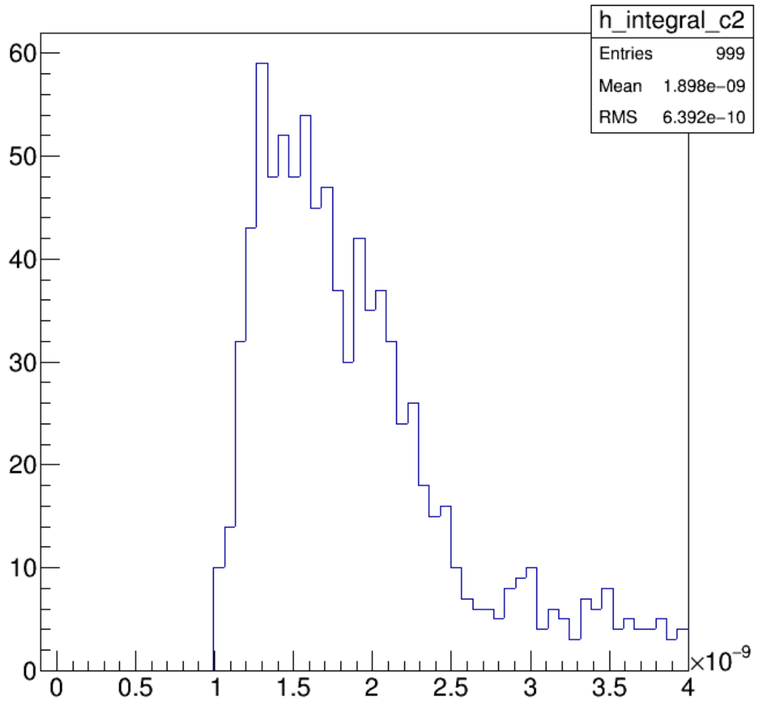
Thickness: 285 μm T:-20°C Vbias:50V Radiation dose: non-irr

3D



int

LGAD

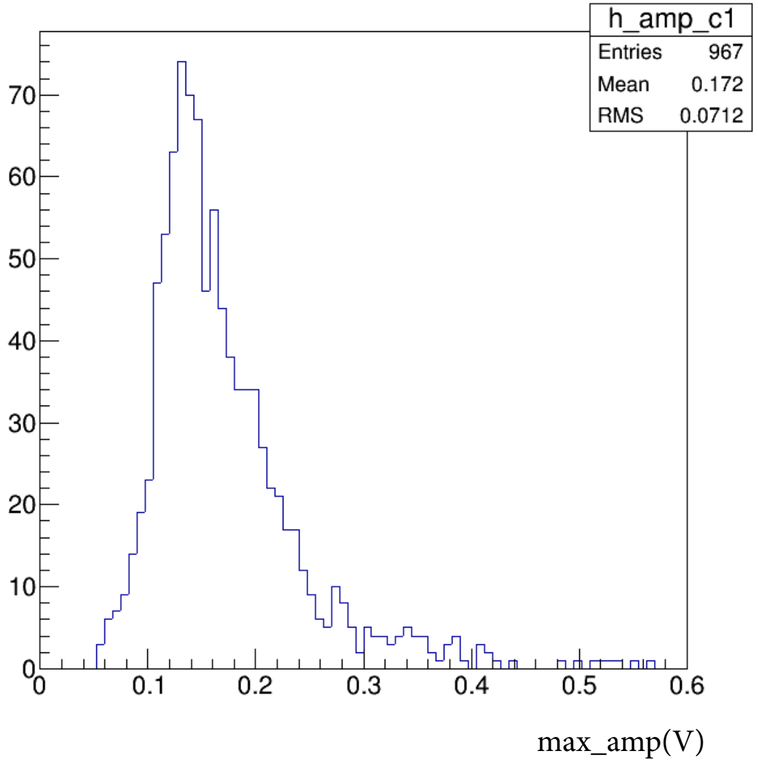


int

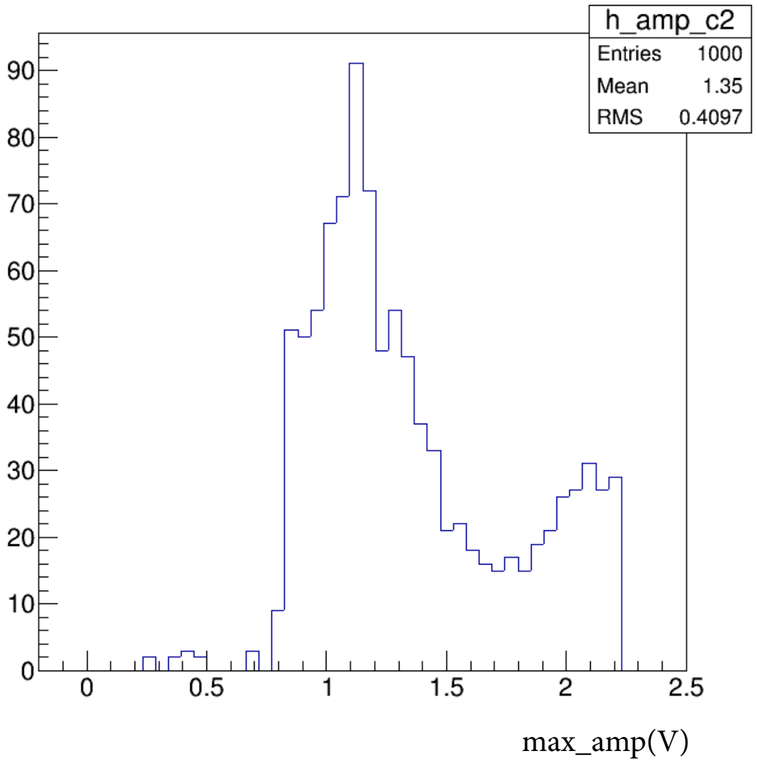
t(s)

Thickness: 285 μm T:-20°C Vbias:100V Radiation dose: non-irr

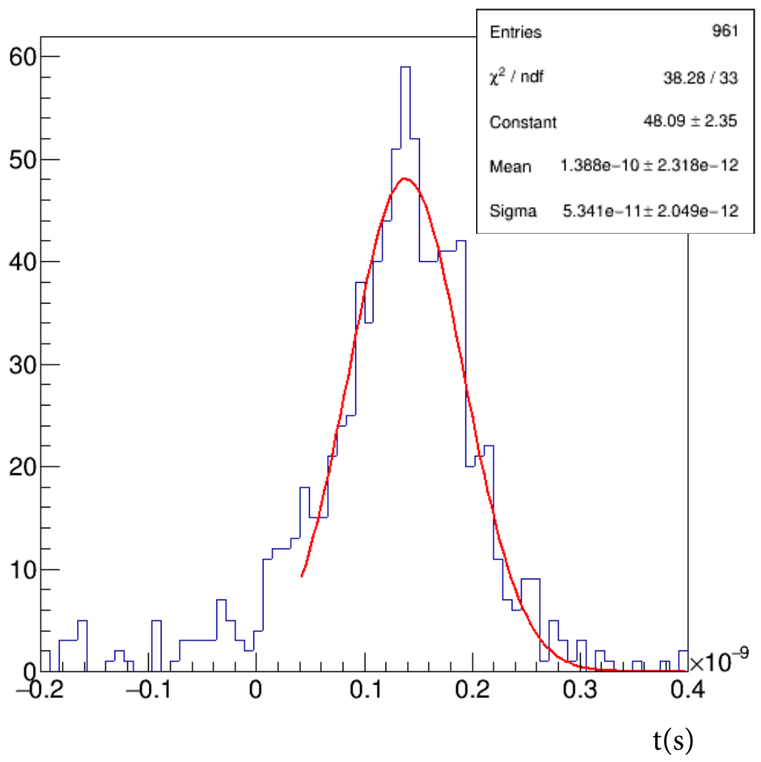
3D



LGAD

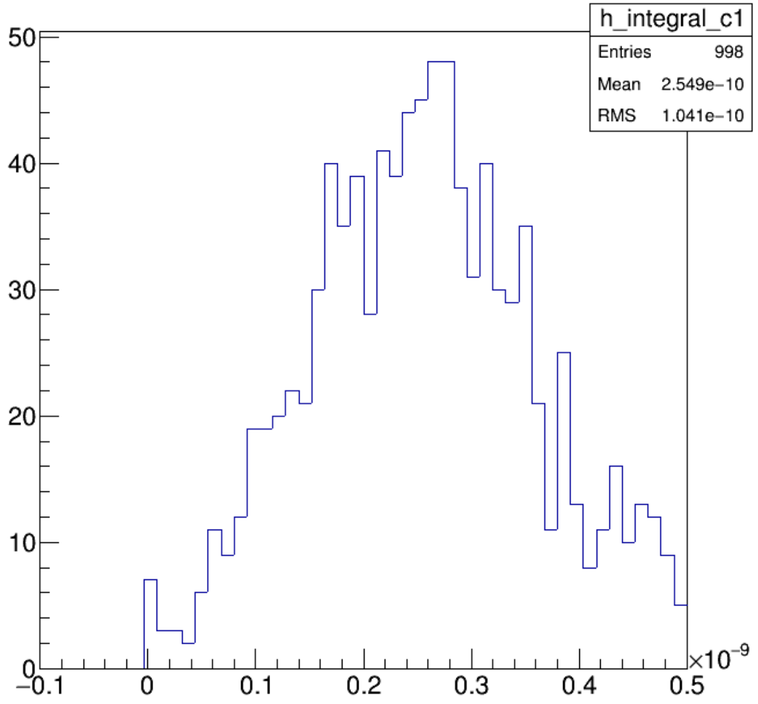


$\Delta t = t_{LGAD} - t_{3D}$



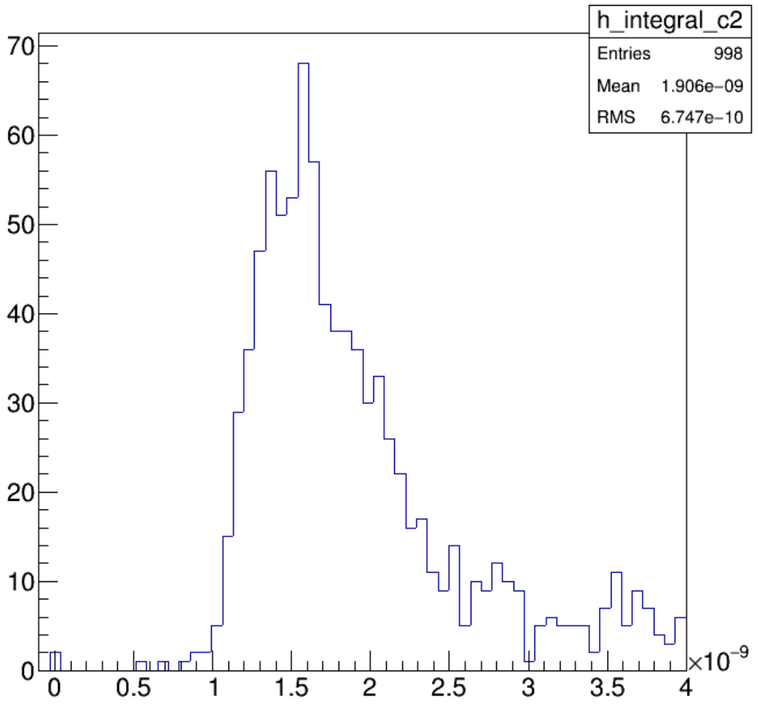
Thickness: 285 μm T:-20°C Vbias:100V Radiation dose: non-irr

3D



int

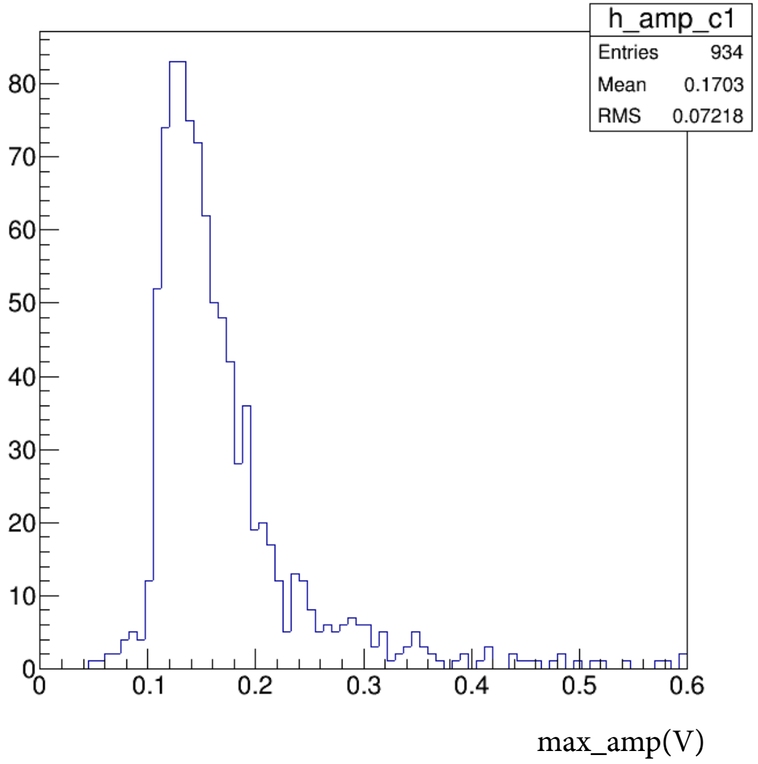
LGAD



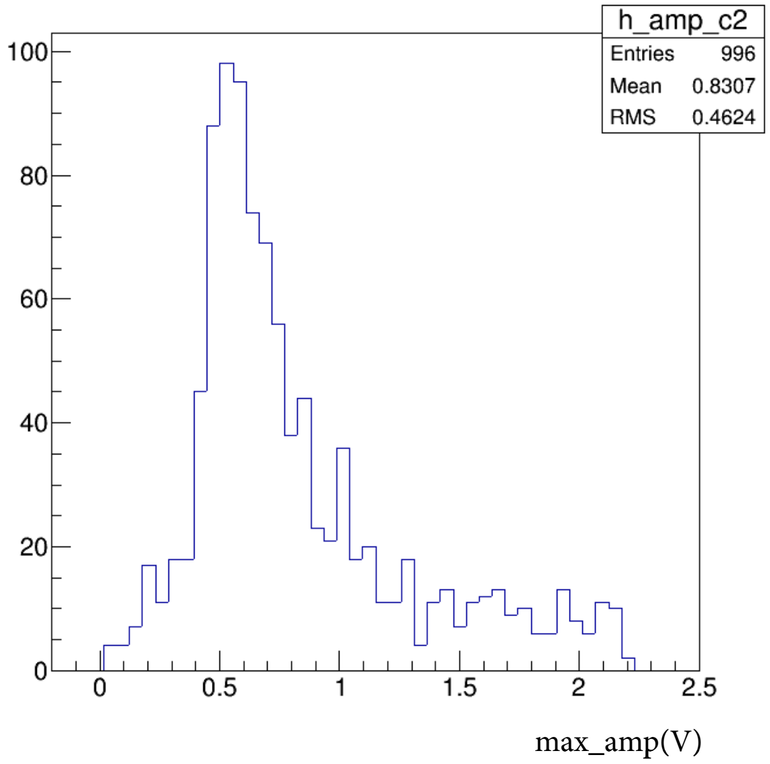
int

Thickness: 285 μm T:+20°C Vbias:50V Radiation dose: non-irr

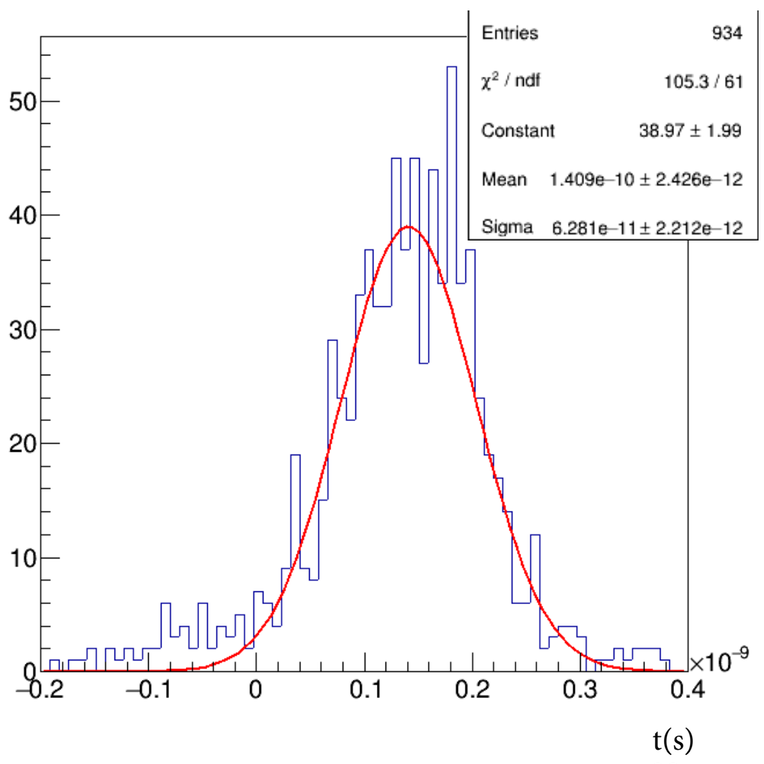
3D



LGAD

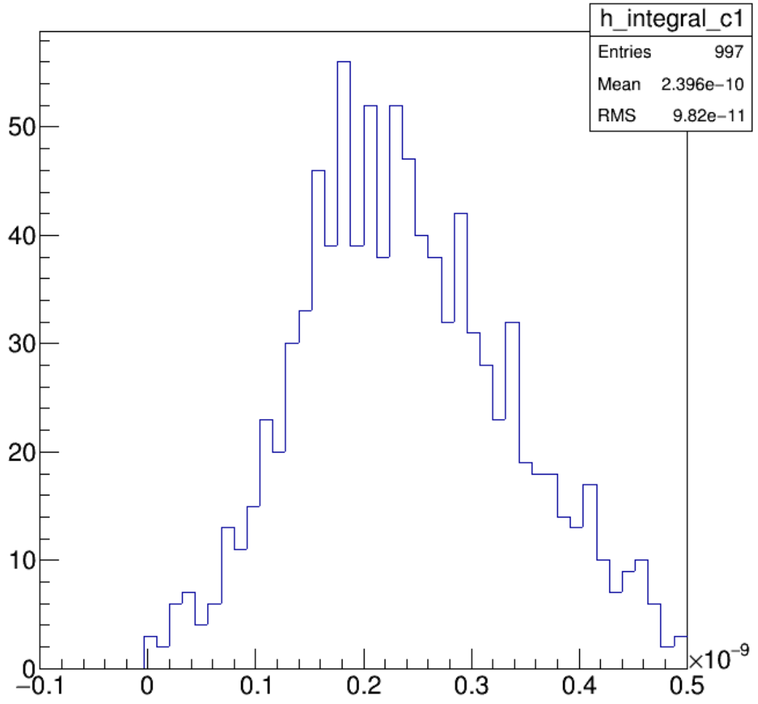


$\Delta t = t_{LGAD} - t_{3D}$



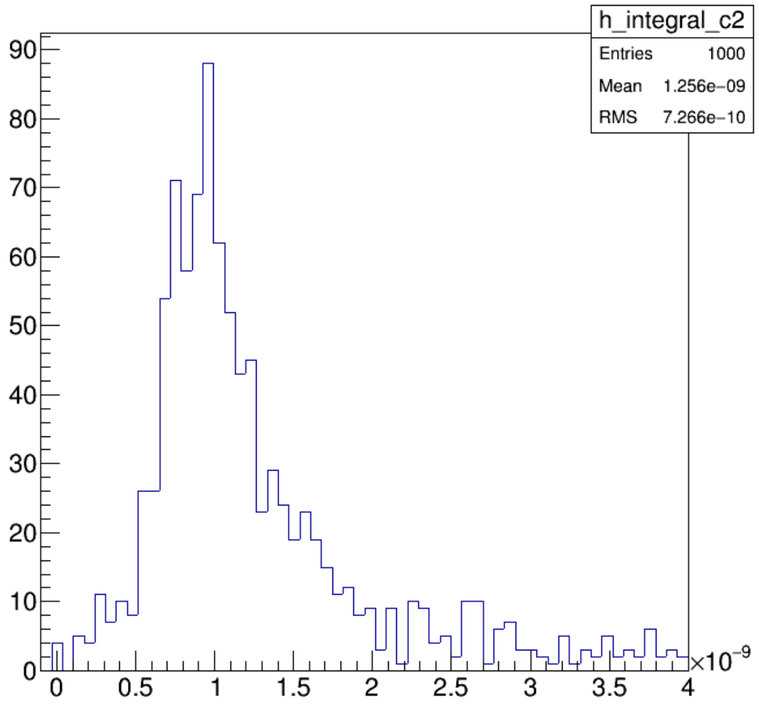
Thickness: 285 μm T:+20°C Vbias:50V Radiation dose: non-irr

3D



int

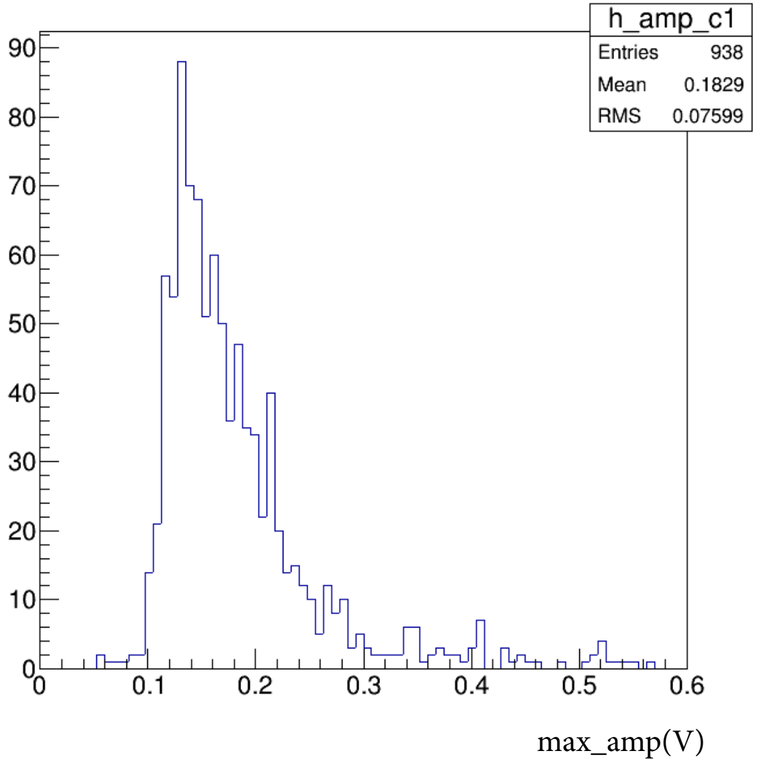
LGAD



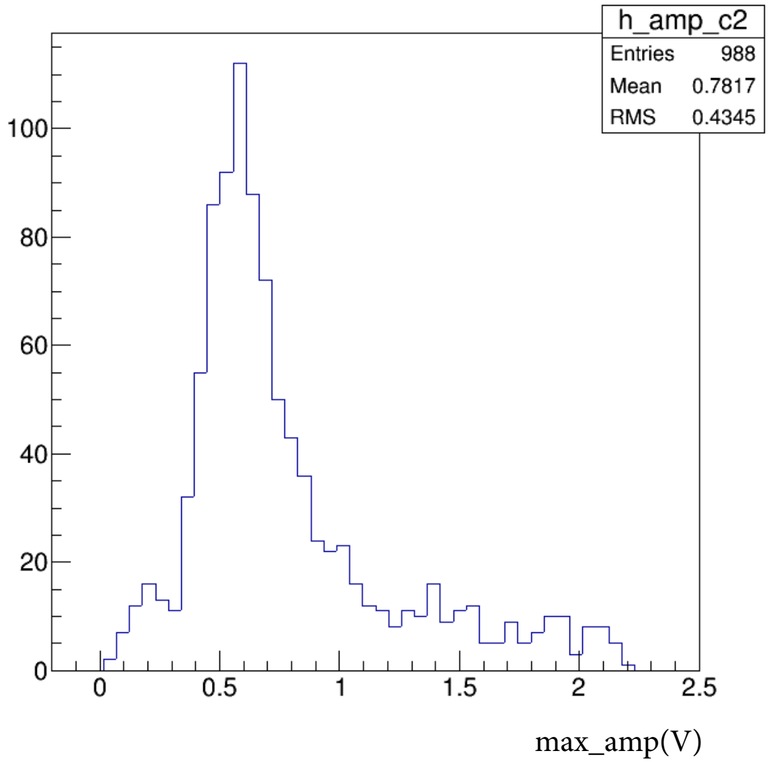
int

Thickness: 285 μm T:+20°C Vbias:100V Radiation dose: non-irr

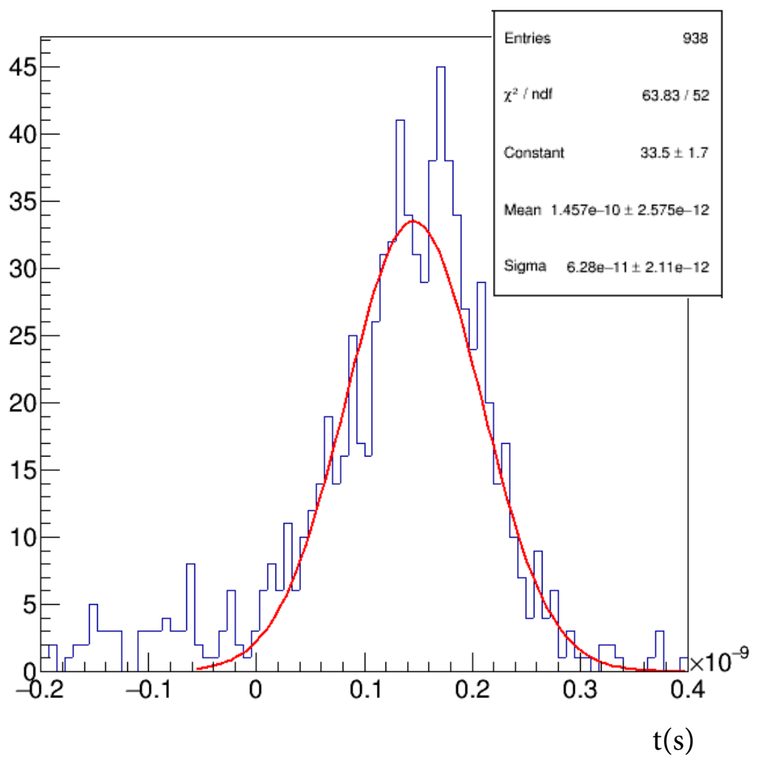
3D



LGAD

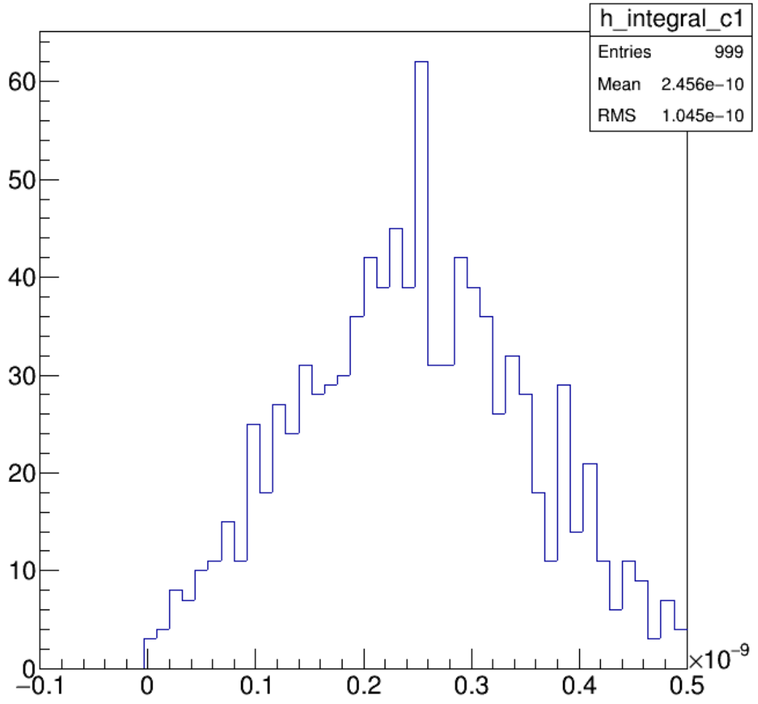


$\Delta t = t_{LGAD} - t_{3D}$

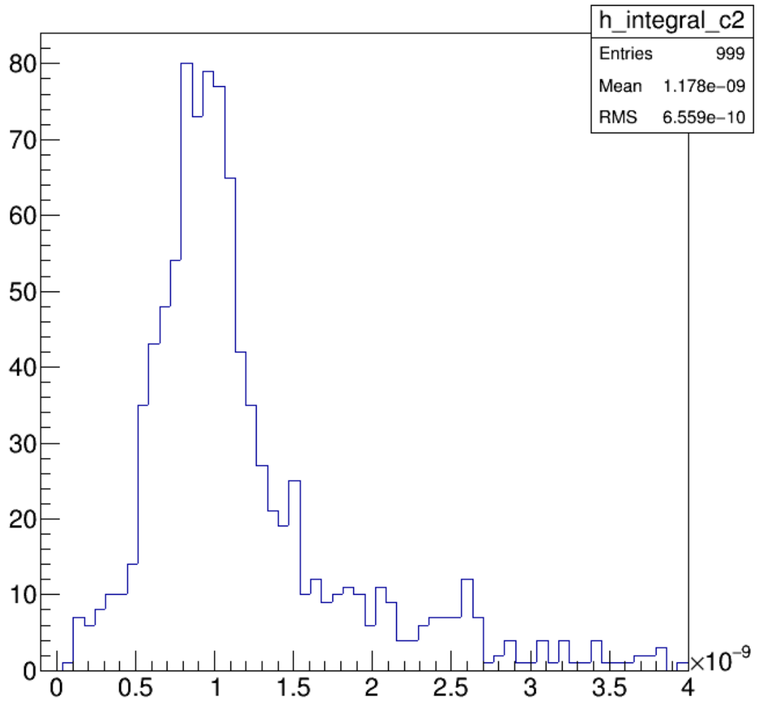


Thickness: 285 μm T:+20°C Vbias:100V Radiation dose: non-irr

3D

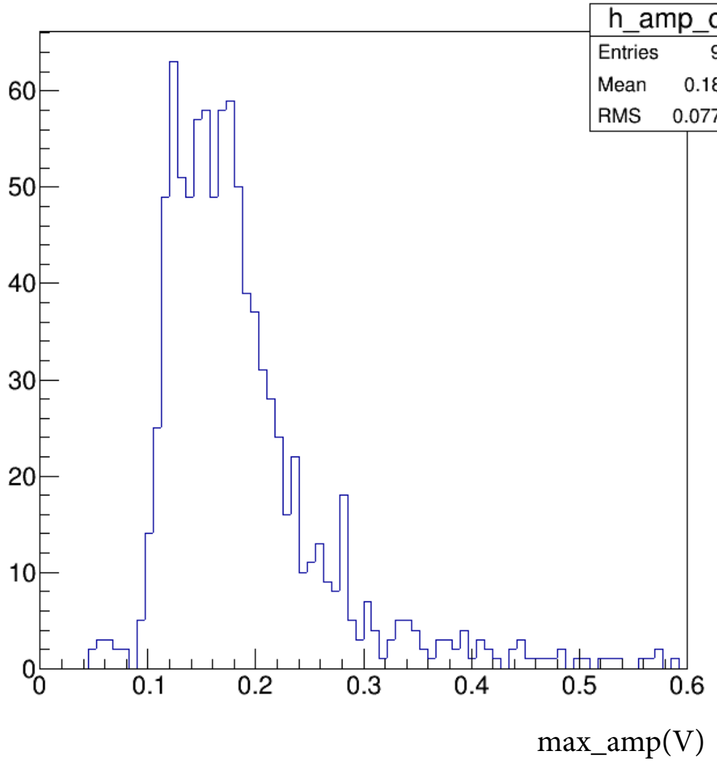


LGAD

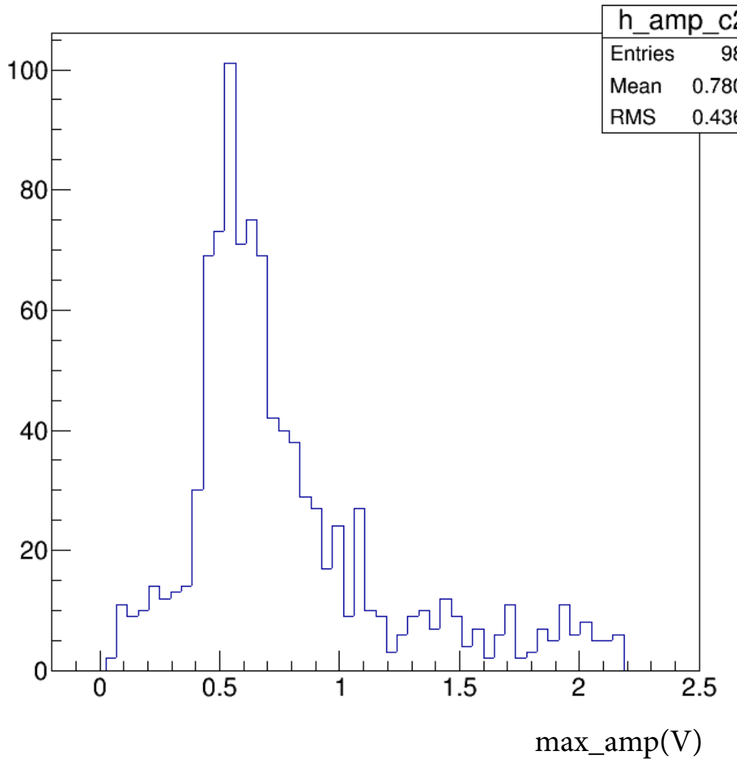


Thickness: 285 μm T:+20°C Vbias:150V Radiation dose: non-irr

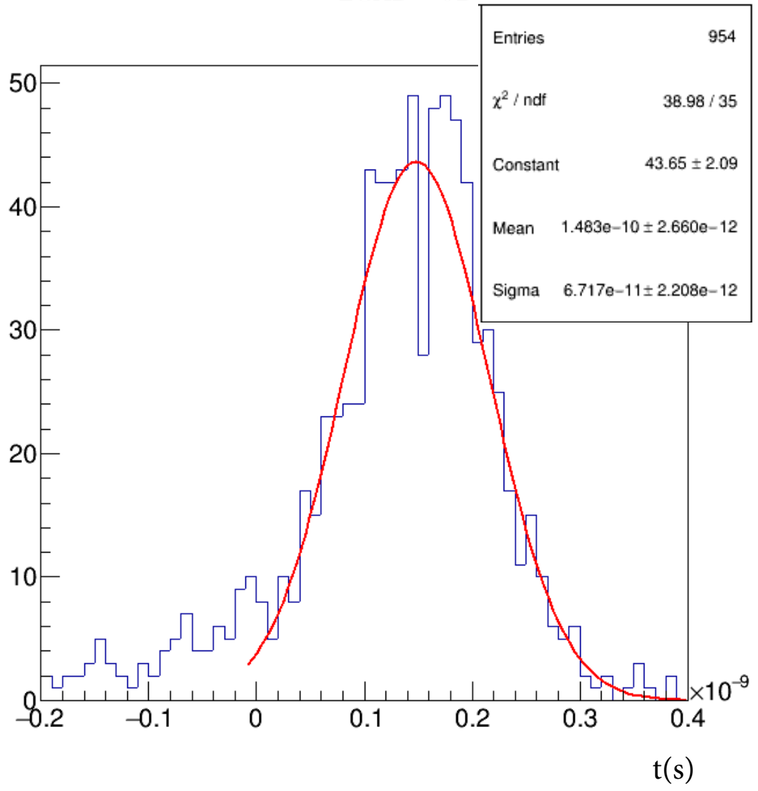
3D



LGAD

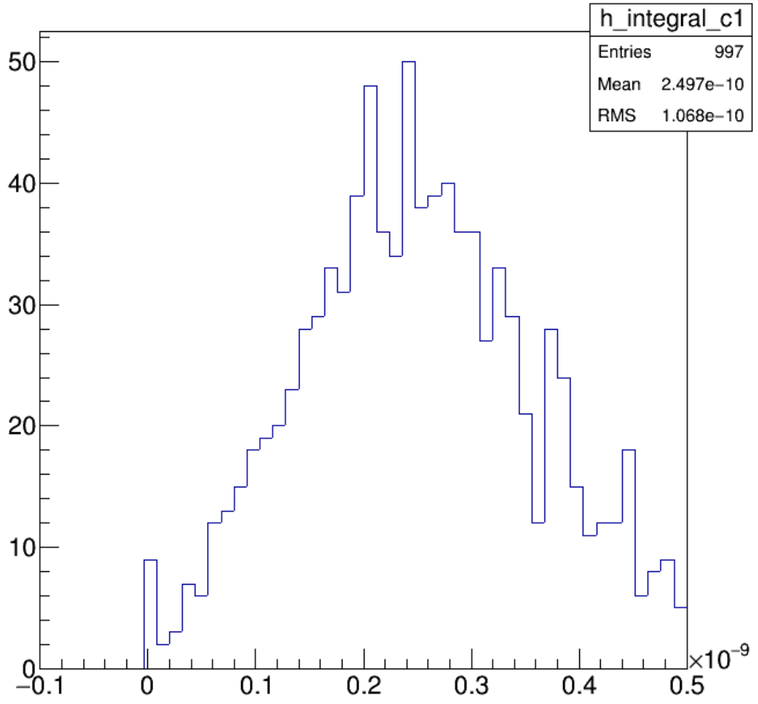


$\Delta t = t_{LGAD} - t_{3D}$



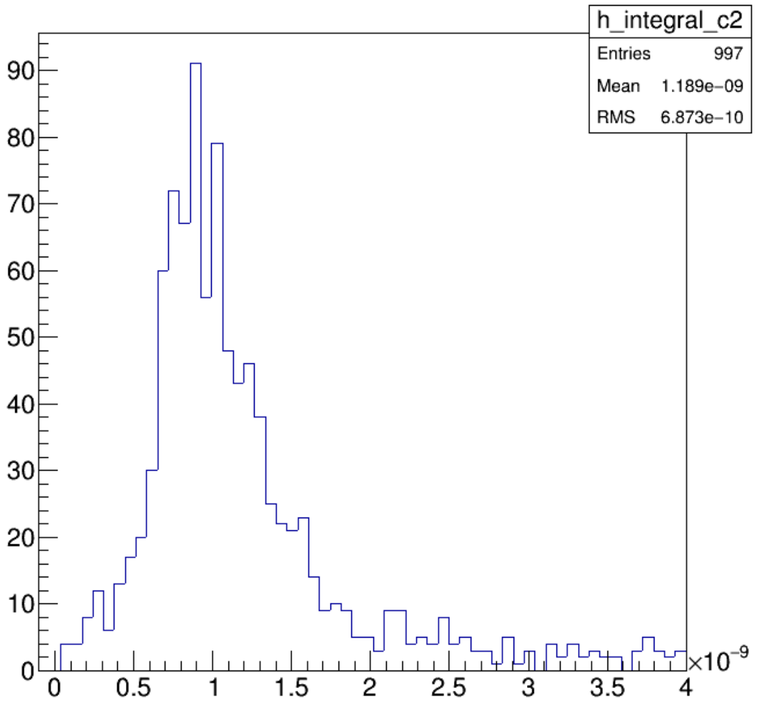
Thickness: 285 μm T:+20°C Vbias:150V Radiation dose: non-irr

3D



int

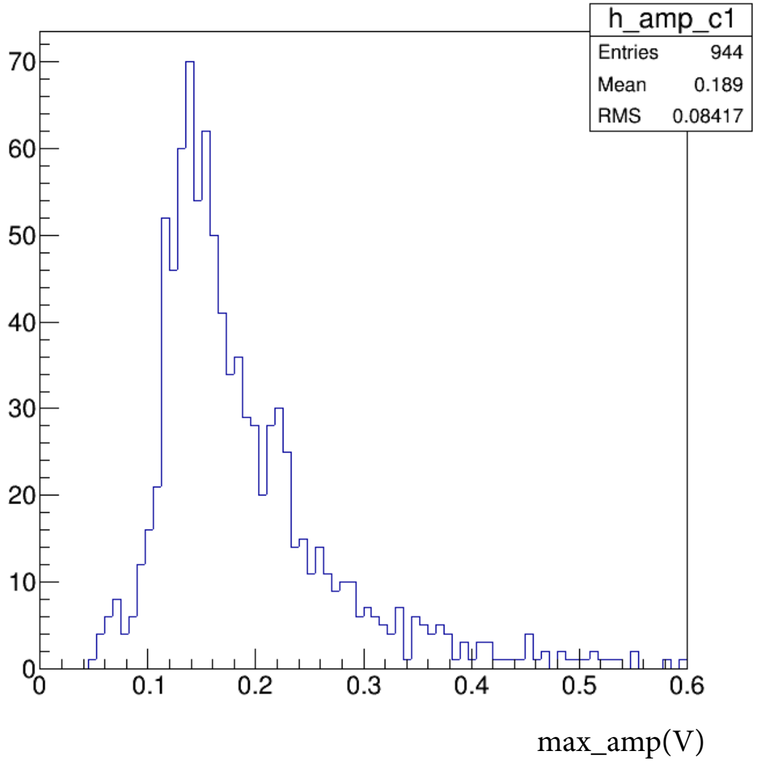
LGAD



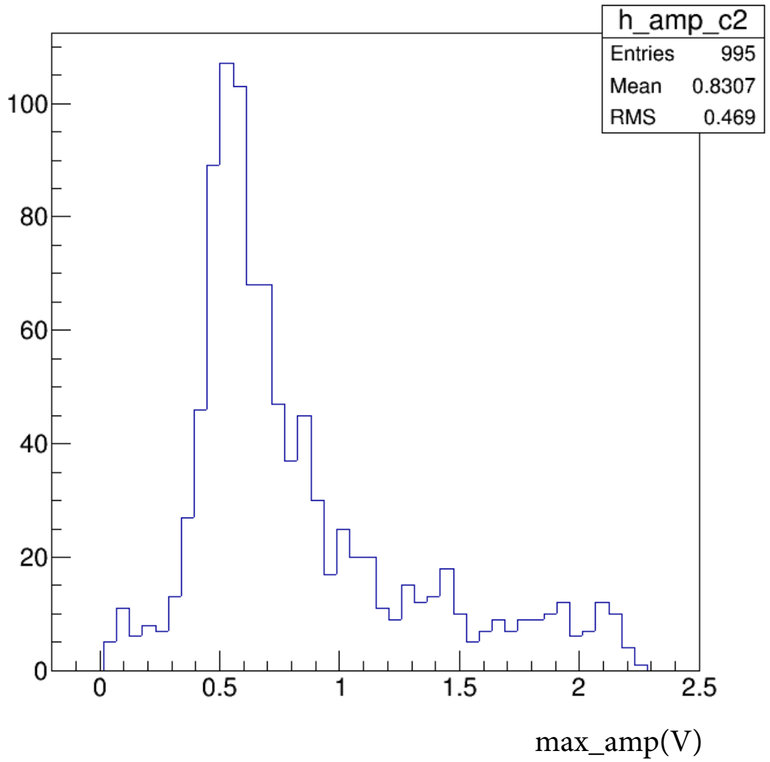
int

Thickness: 285 μm T:+20°C Vbias:200V Radiation dose: non-irr

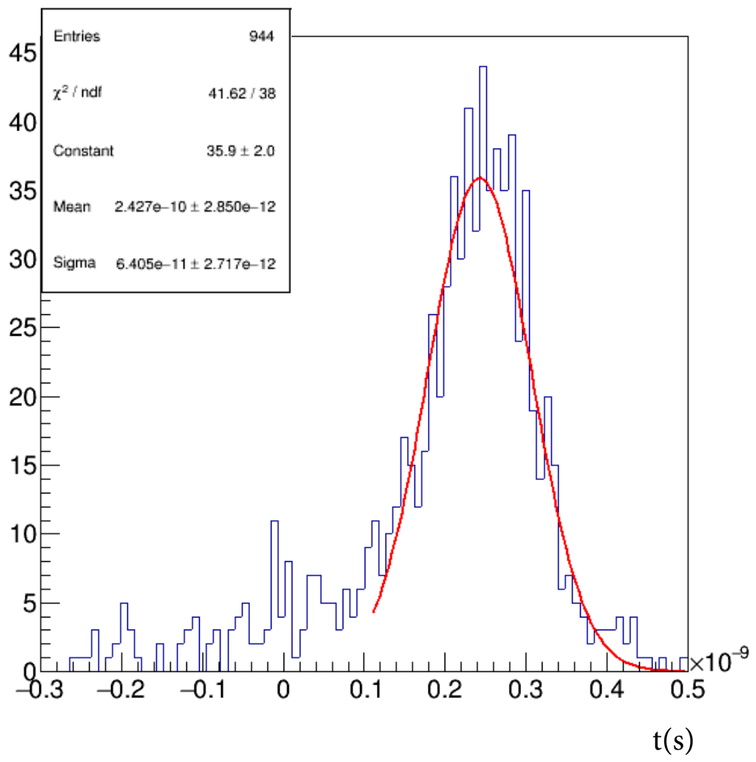
3D



LGAD

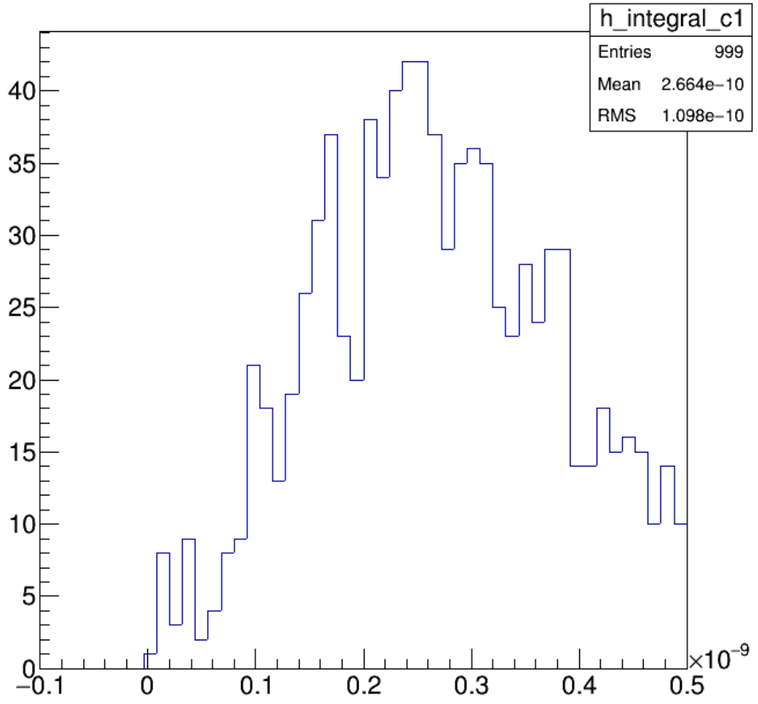


$\Delta t = t_{LGAD} - t_{3D}$



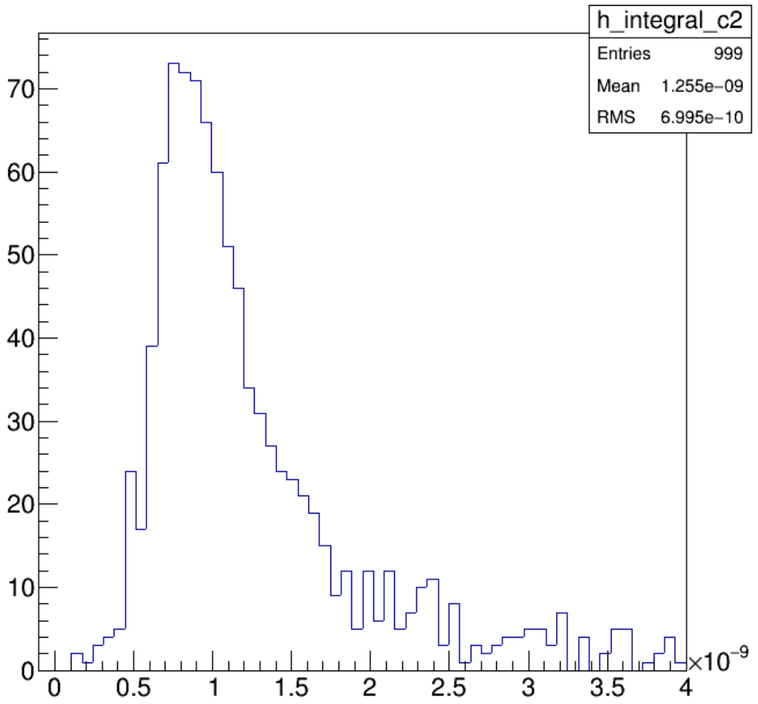
Thickness: 285 μm T:+20°C Vbias:200V Radiation dose: non-irr

3D



int

LGAD

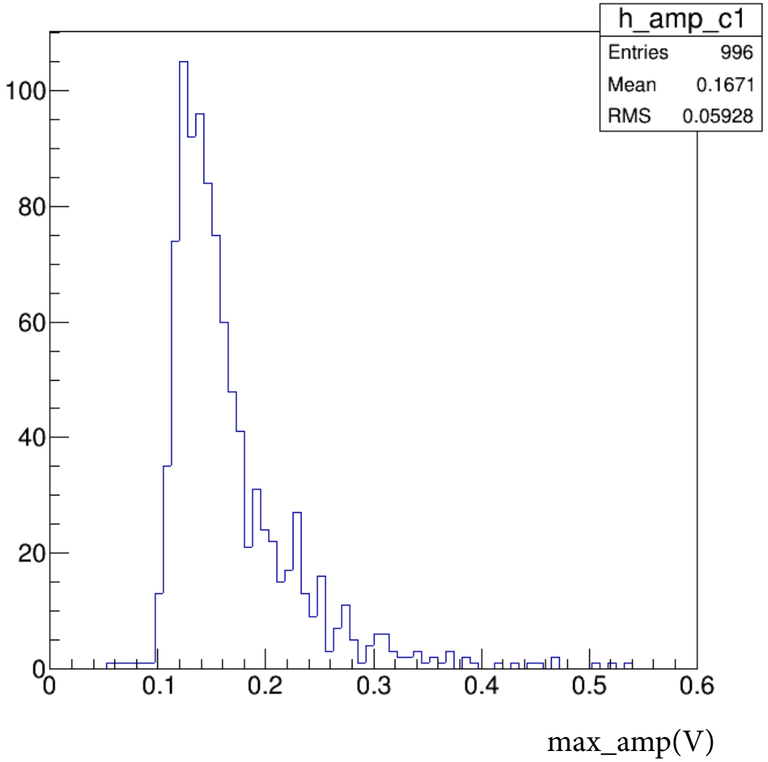


int

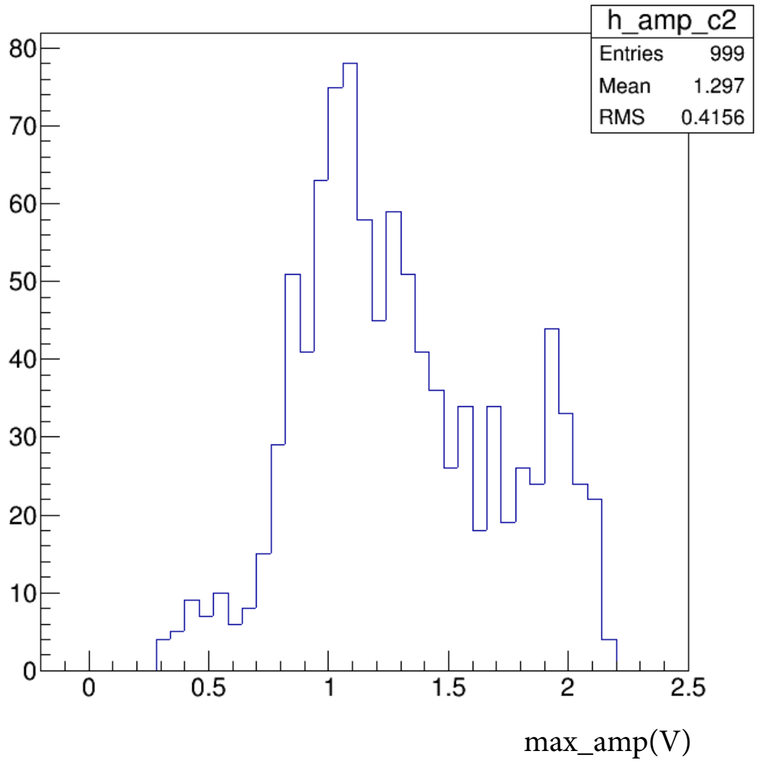
Thickness: 285 μm Radiation dose: 8e14 1MeV N_{eq}/cm^2

Thickness: 285 μm T:-20°C Vbias:50V Radiation dose: 8e14 1MeV N_{eq}/cm^2

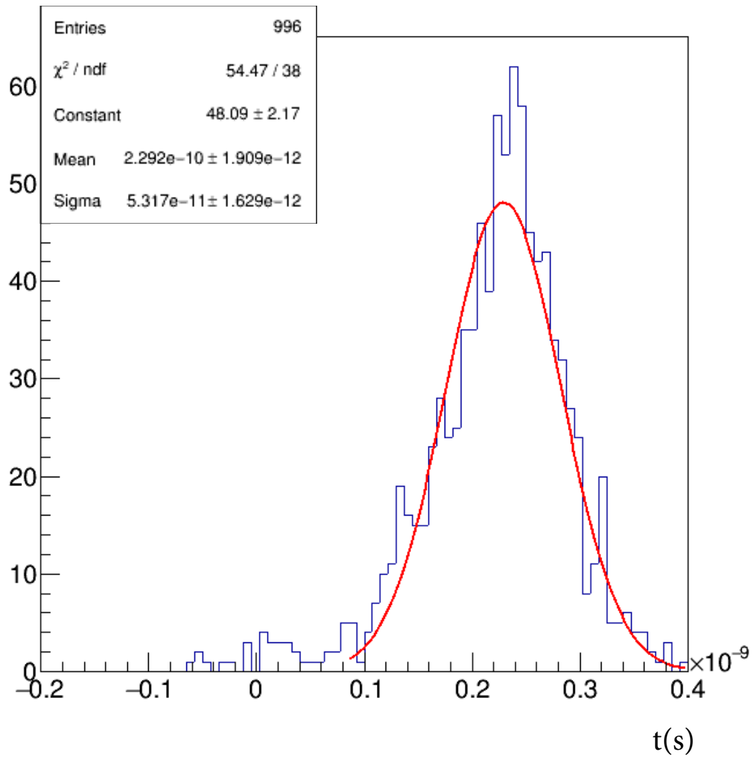
3D



LGAD

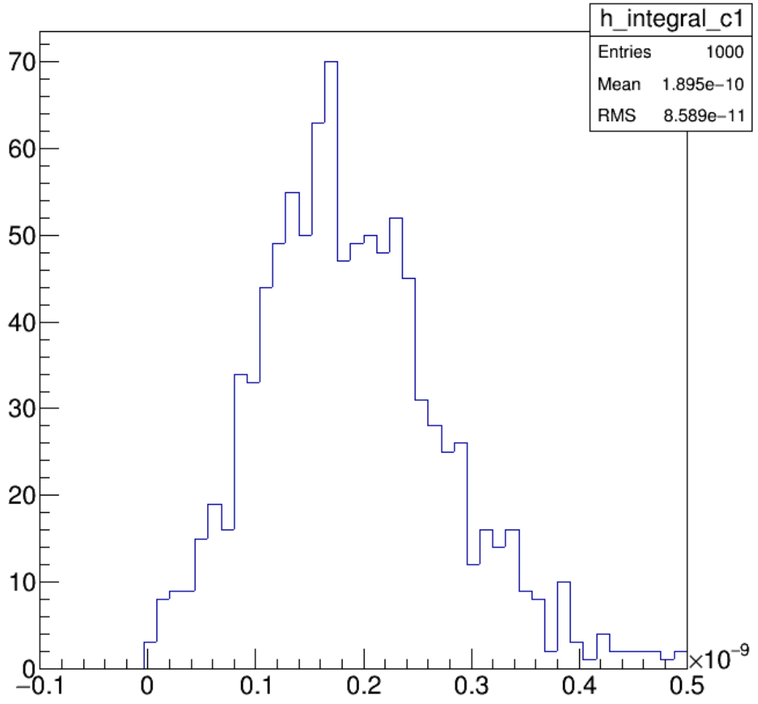


$\Delta t=t_{LGAD}-t_{3D}$



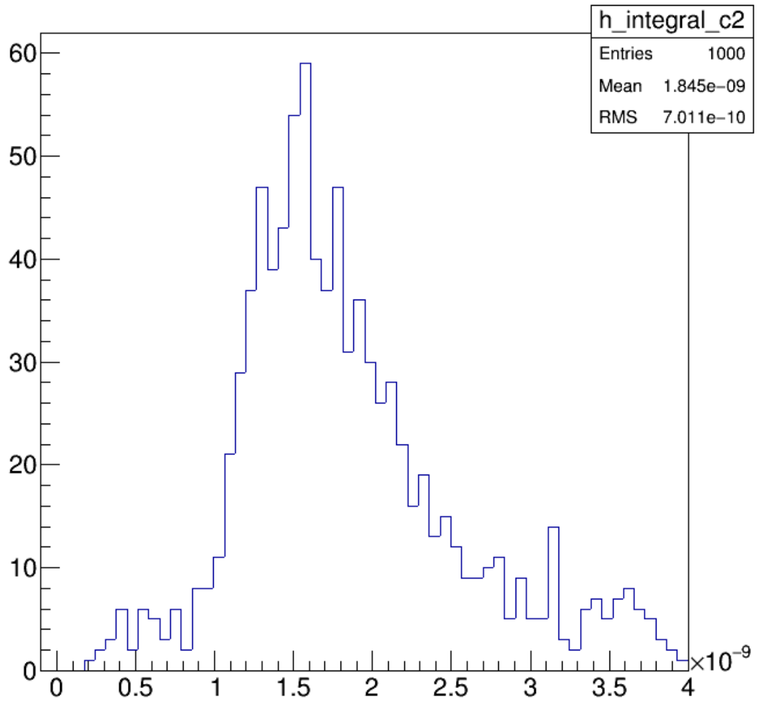
Thickness: 285 μm T:-20°C Vbias:50V Radiation dose: 8e14 1MeV N_{eq}/cm^2

3D



int

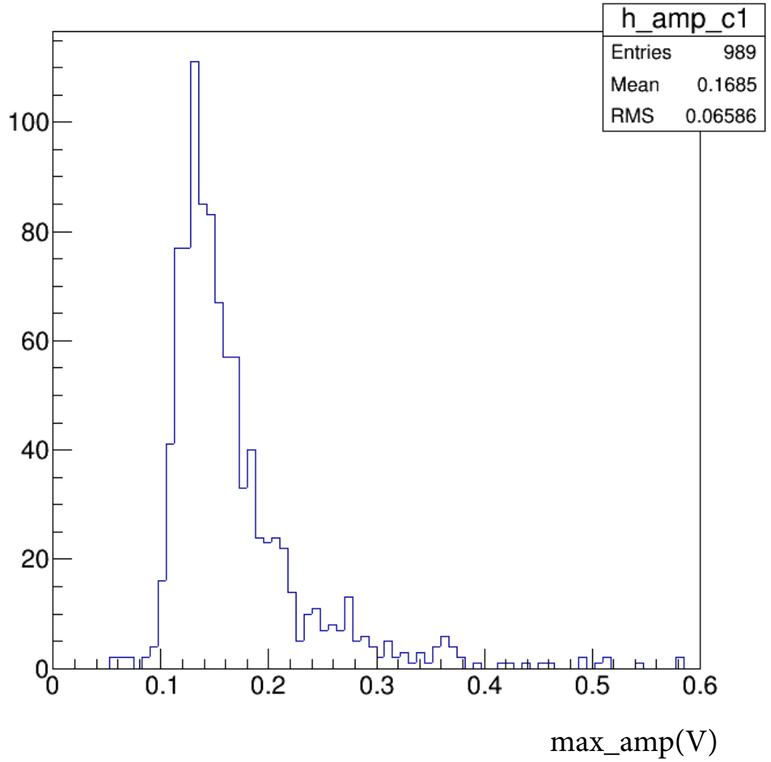
LGAD



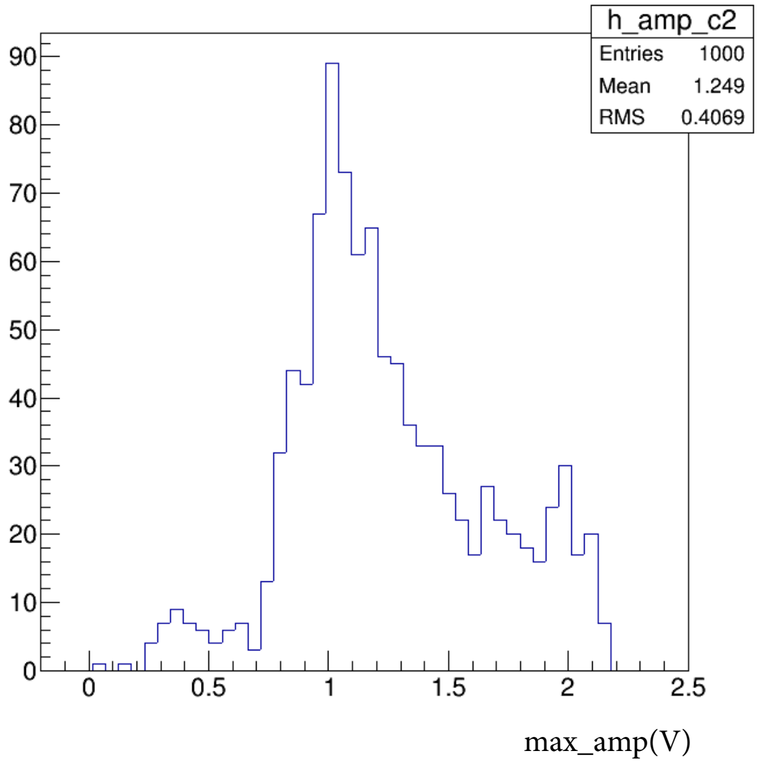
int

Thickness: 285 μm T:-20°C Vbias:100V Radiation dose: 8e14 1MeV N_{eq}/cm^2

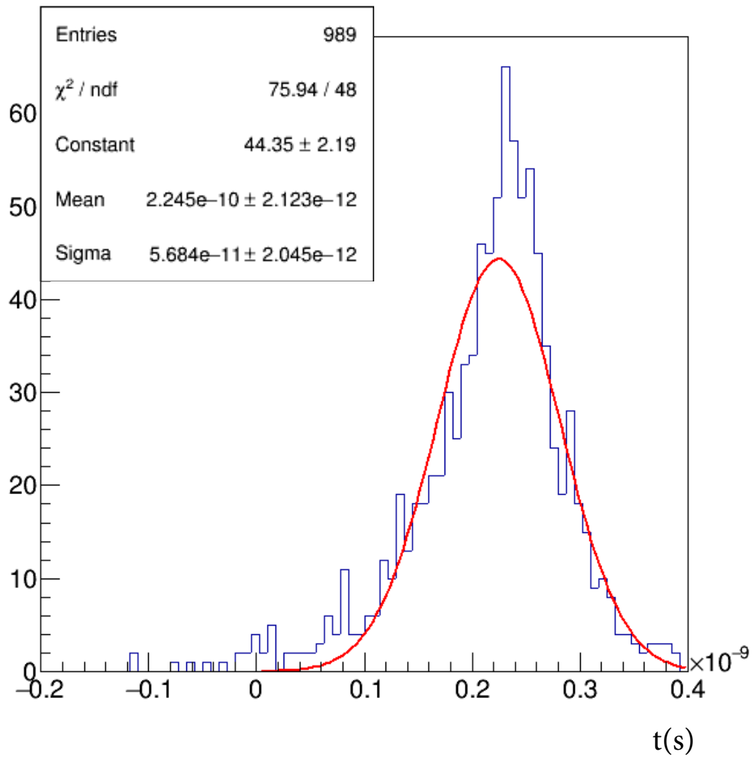
3D



LGAD

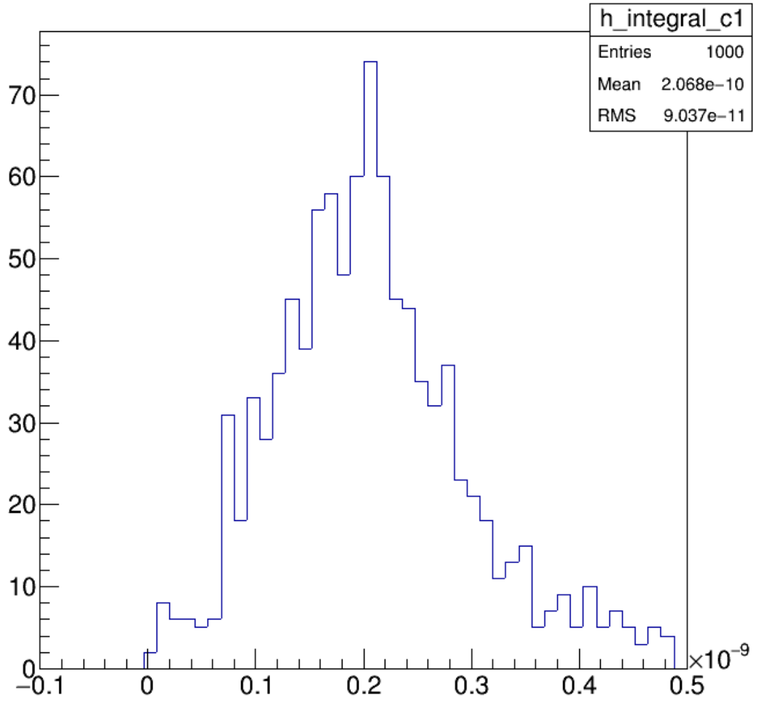


$\Delta t=t_{LGAD}-t_{3D}$



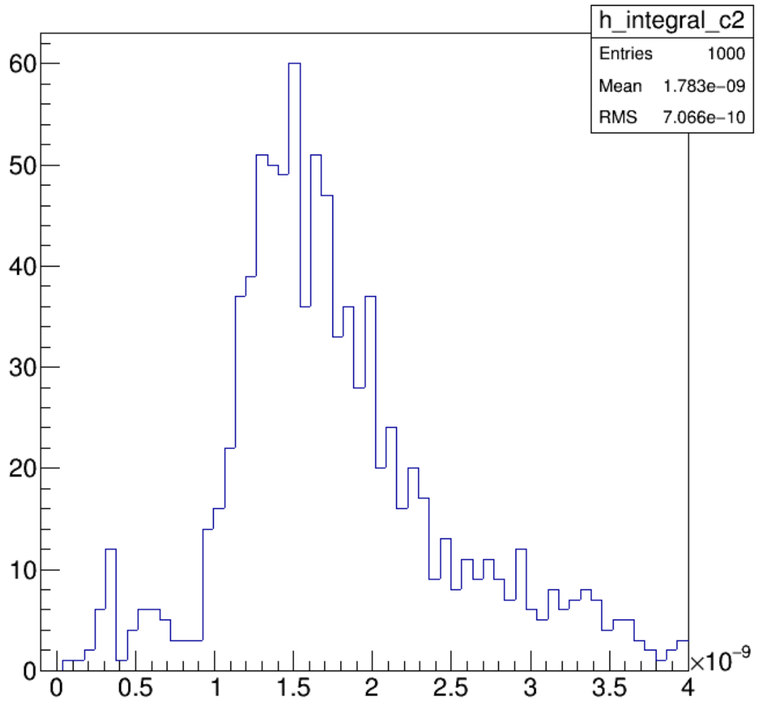
Thickness: 285 μm T:-20°C Vbias:100V Radiation dose: 8e14 1MeV N_{eq}/cm^2

3D



int

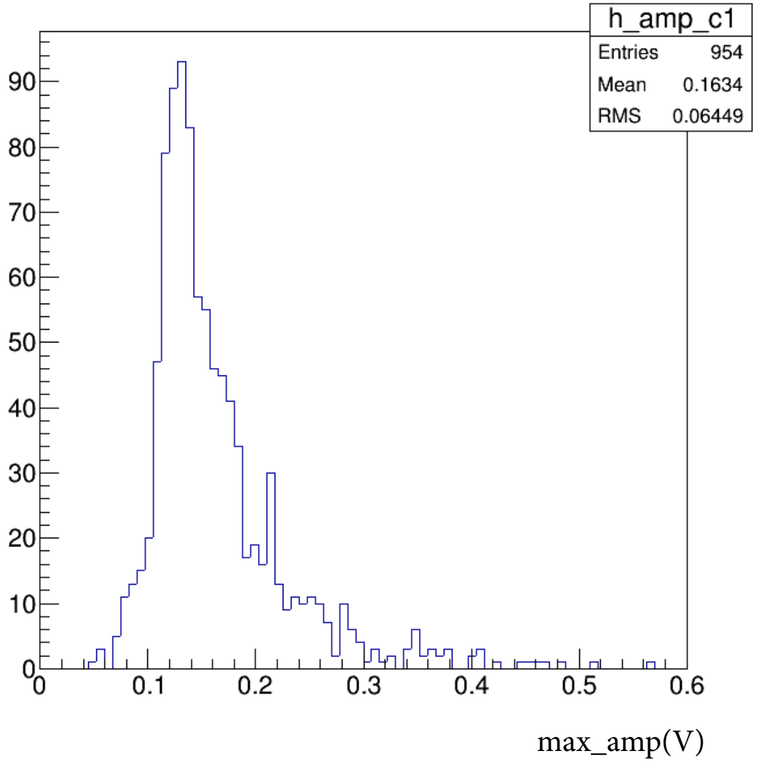
LGAD



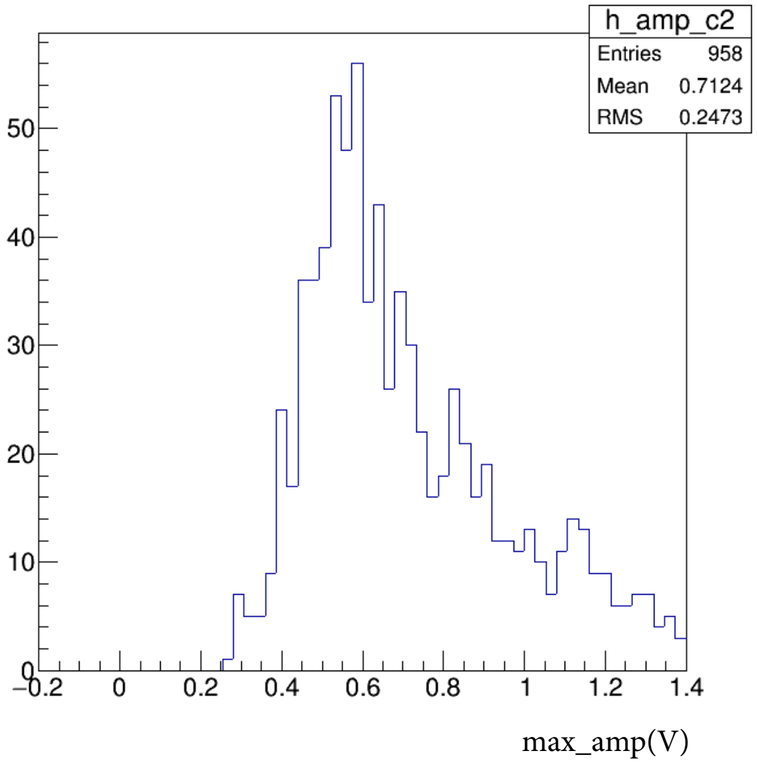
int

Thickness: 285 μm T:+20°C Vbias:50V Radiation dose: 8e14 1MeV N_{eq}/cm^2

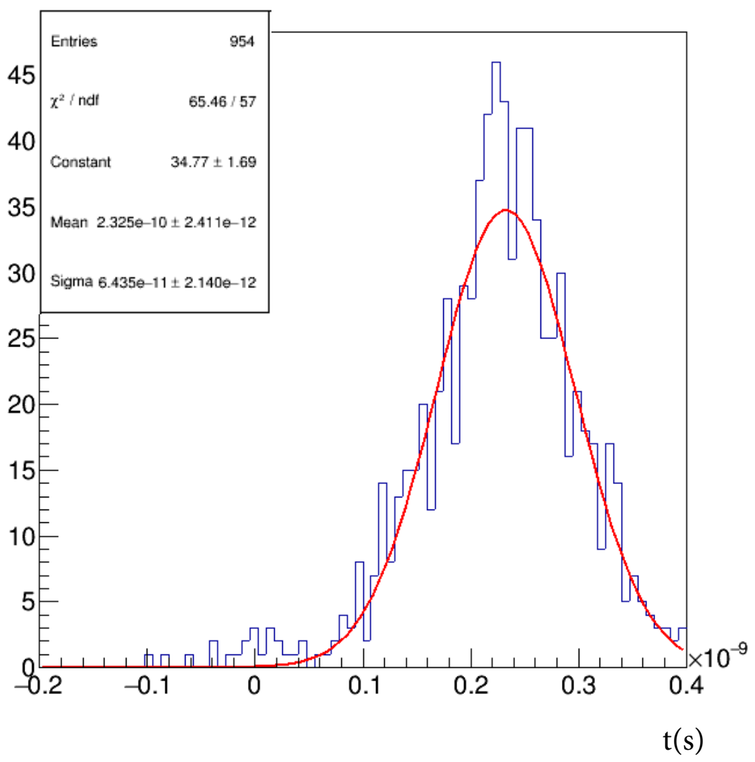
3D



LGAD

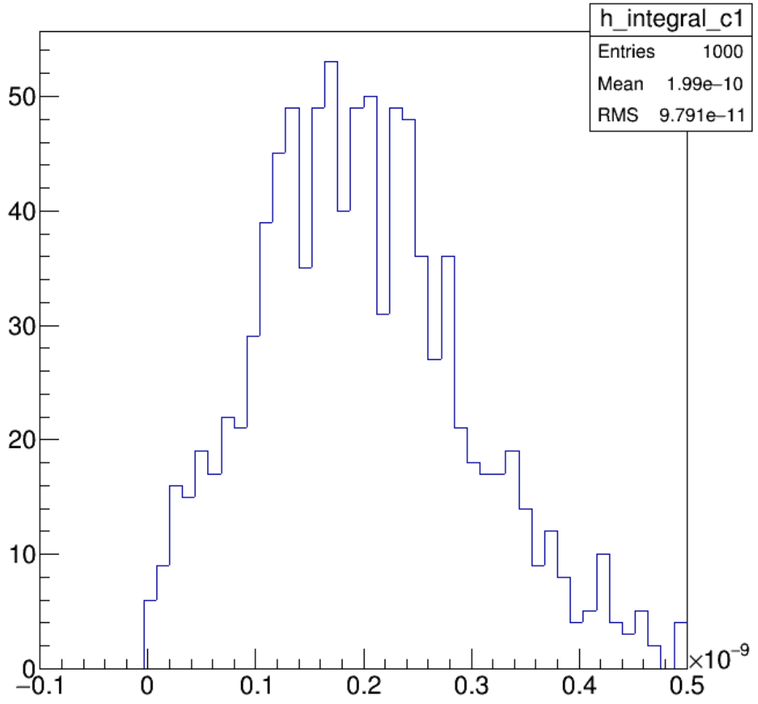


$\Delta t=t_{LGAD}-t_{3D}$



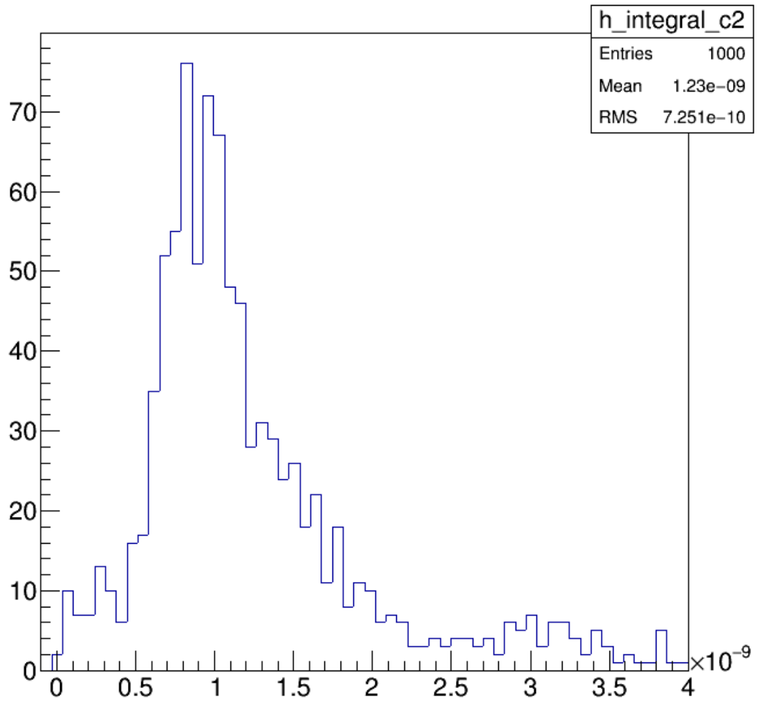
Thickness: 285 μm T:+20°C Vbias:50V Radiation dose: 8e14 1MeV N_{eq}/cm^2

3D



int

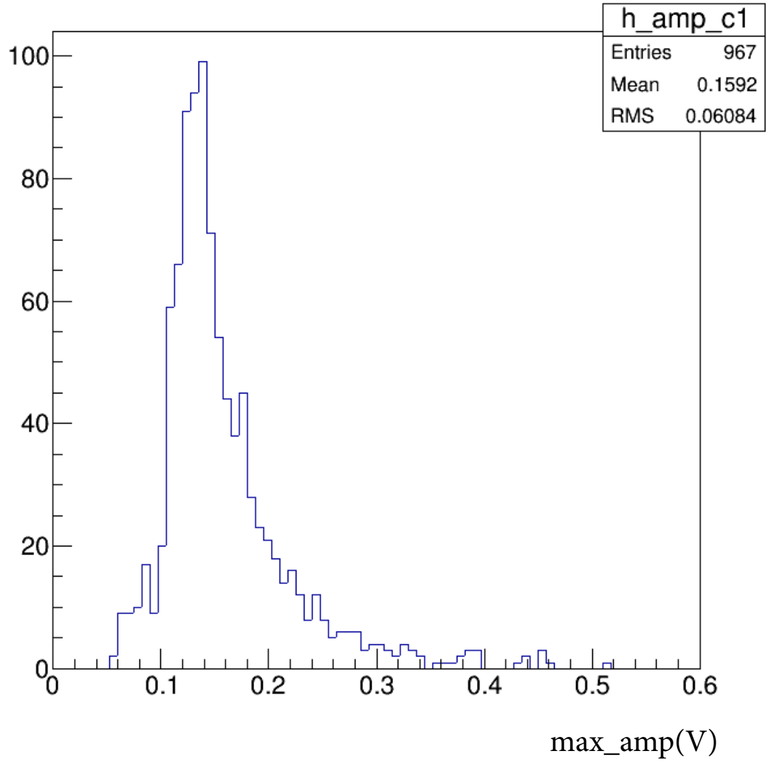
LGAD



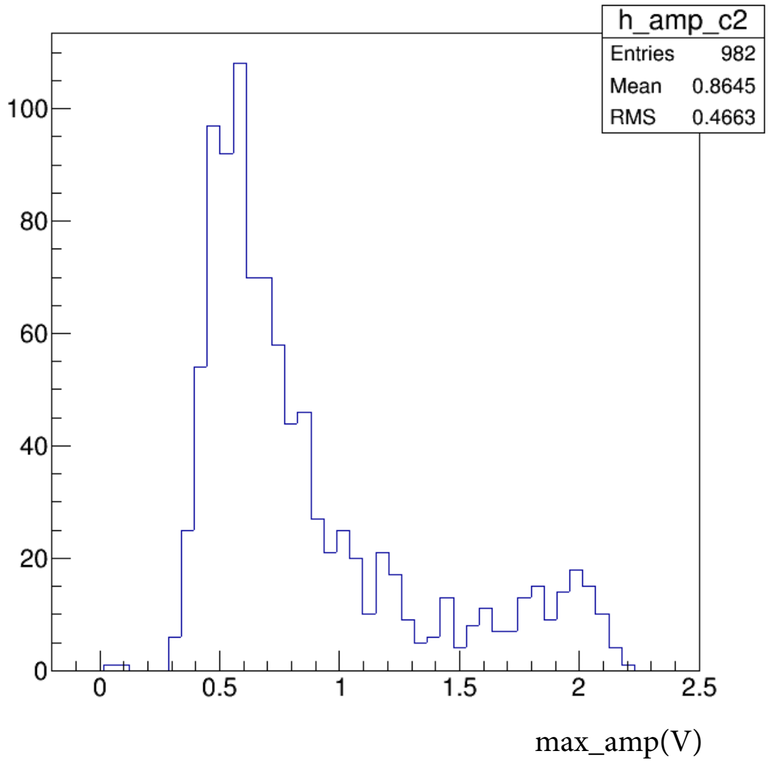
int

Thickness: 285 μm T:+20°C Vbias:100V Radiation dose: 8e14 1MeV N_{eq}/cm^2

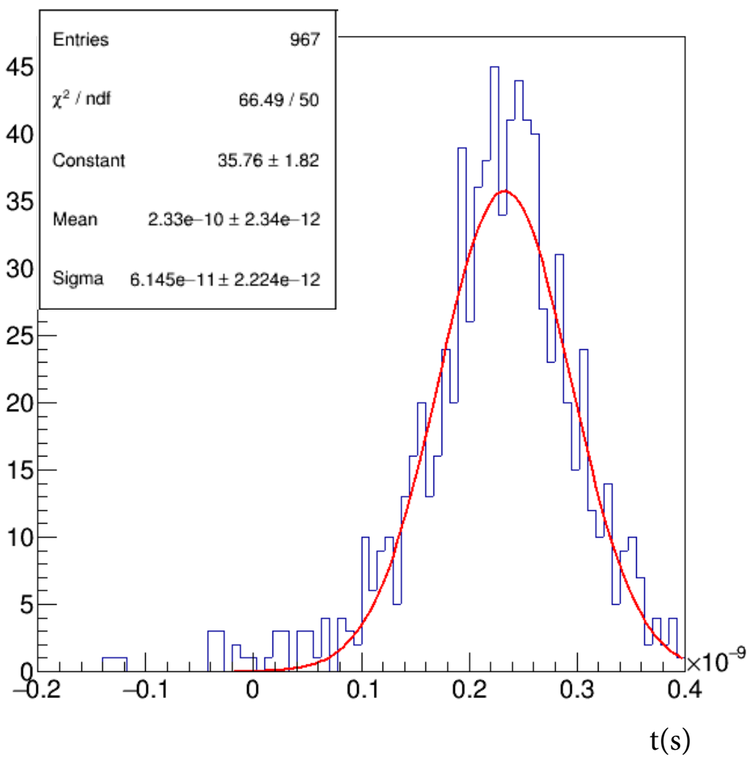
3D



LGAD

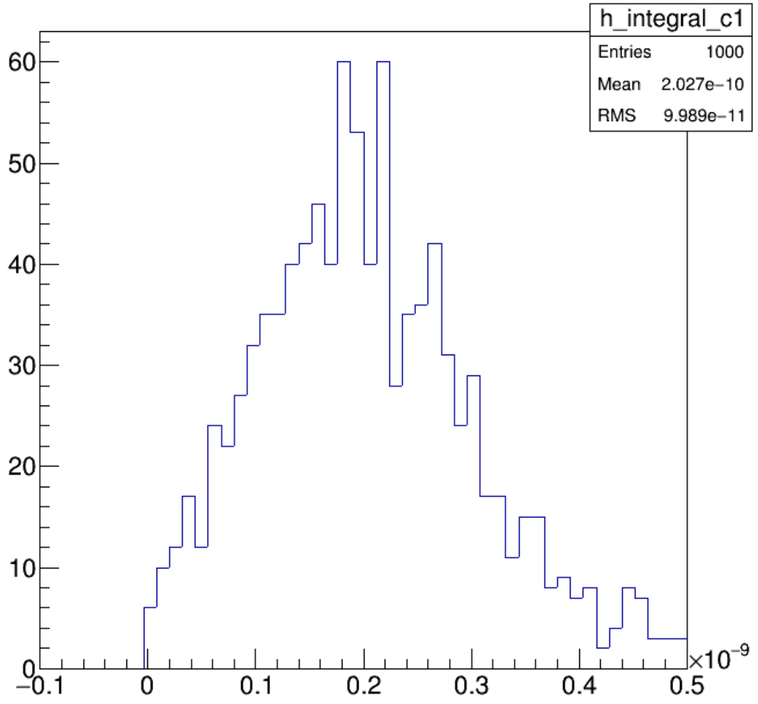


$\Delta t = t_{LGAD} - t_{3D}$

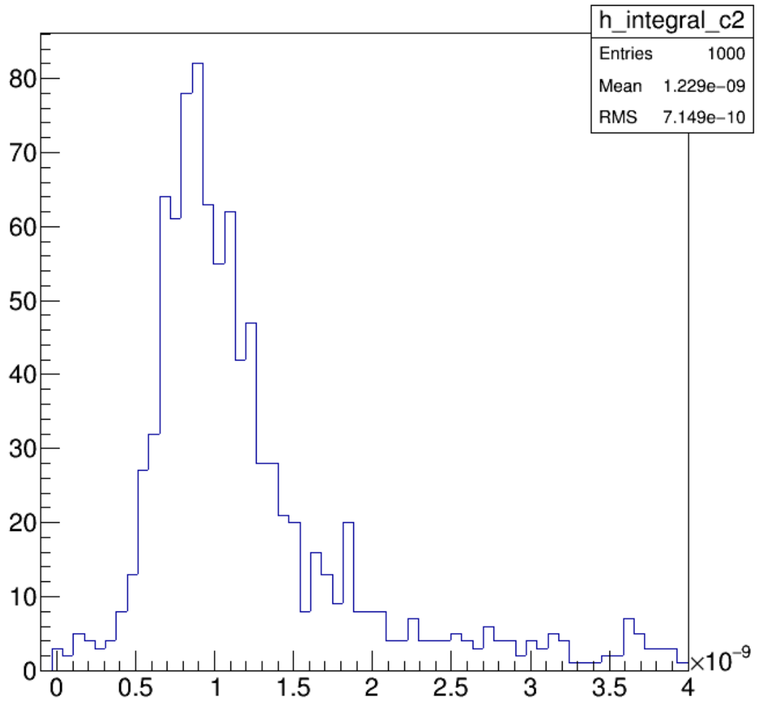


Thickness: 285 μm T:+20°C Vbias:100V Radiation dose: 8e14 1MeV N_{eq}/cm^2

3D



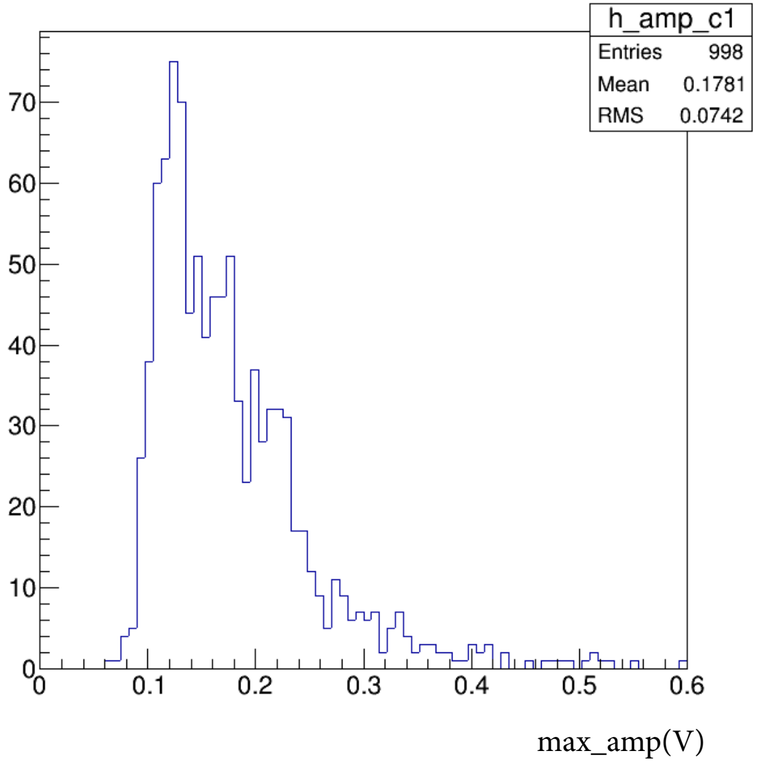
LGAD



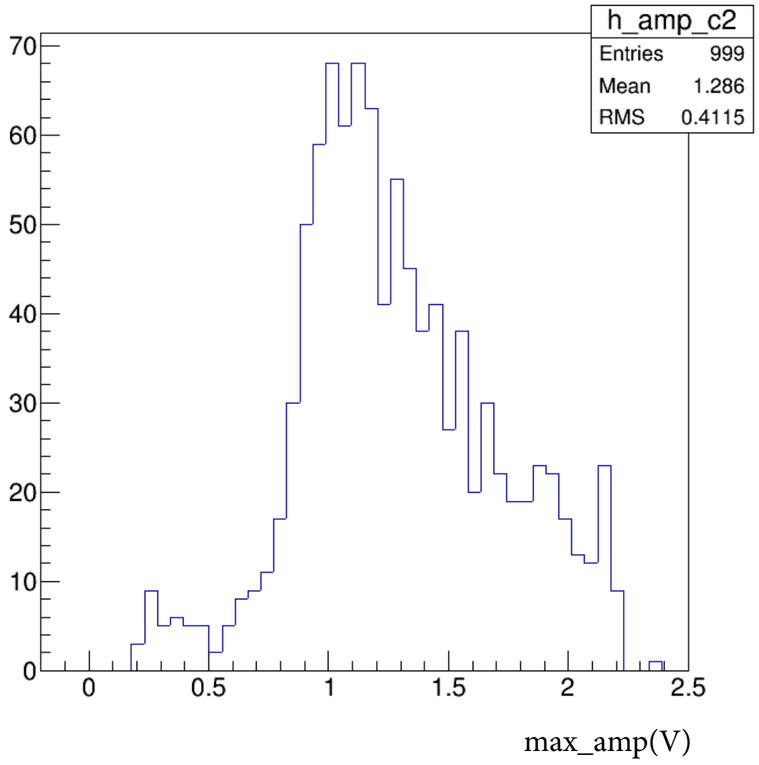
Thickness: 285 μm Radiation dose: 2.3e15 1MeV N_{eq}/cm^2

Thickness: 285 μm T:-20°C Vbias:100V Radiation dose: 2.3e15 1MeV N_{eq}/cm^2

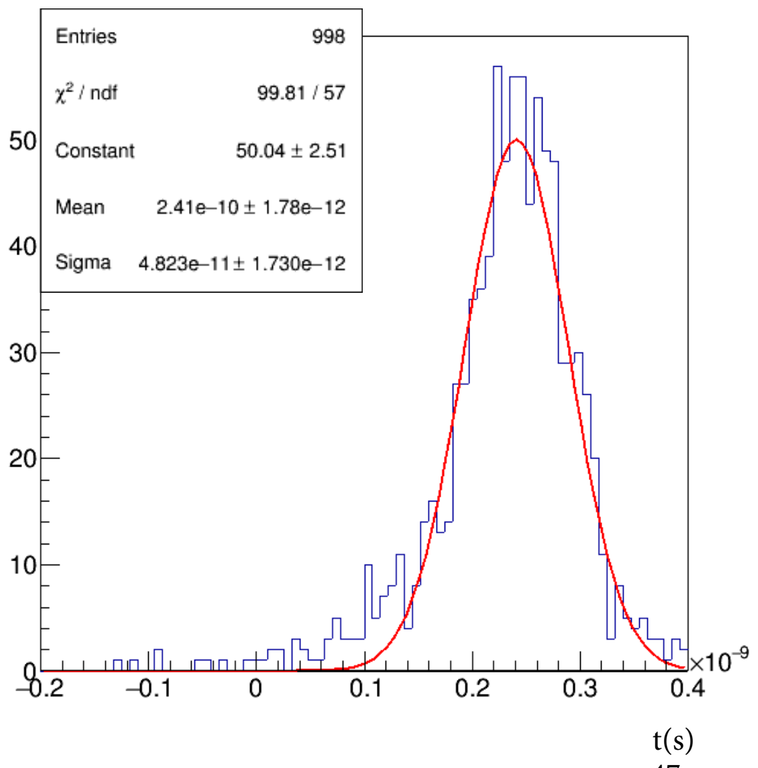
3D



LGAD

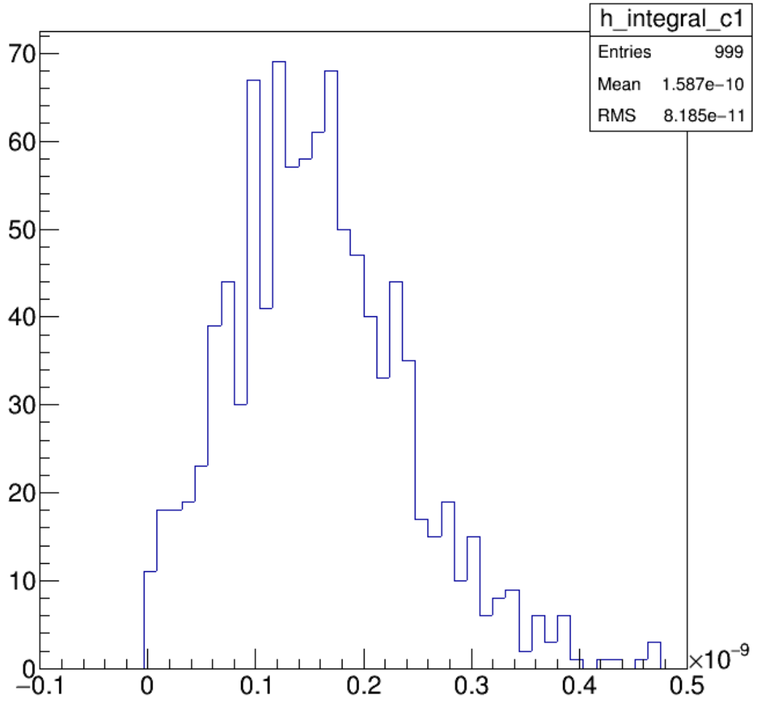


$\Delta t = t_{LGAD} - t_{3D}$



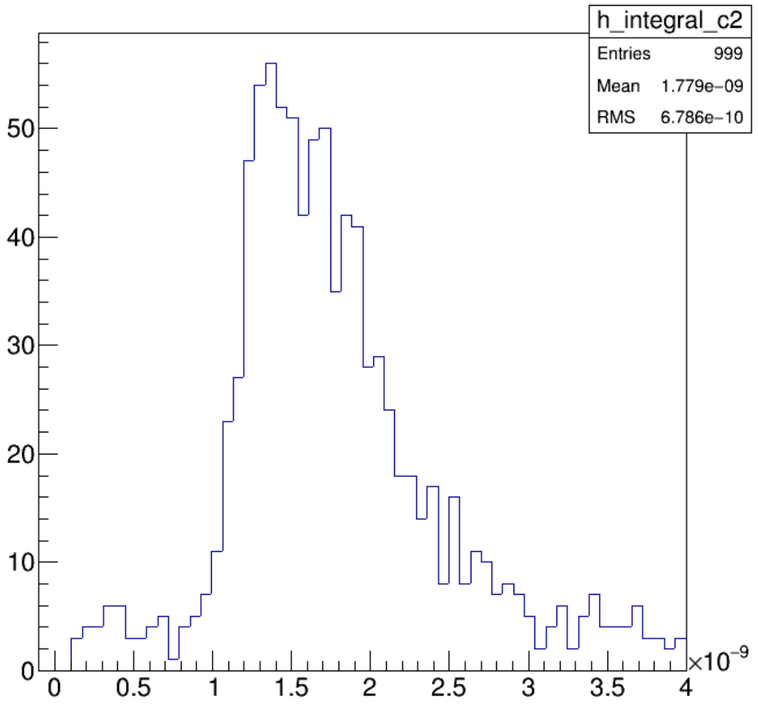
Thickness: 285 μm T:-20°C Vbias:100V Radiation dose: 2.3e15 1MeV N_{eq}/cm^2

3D



int

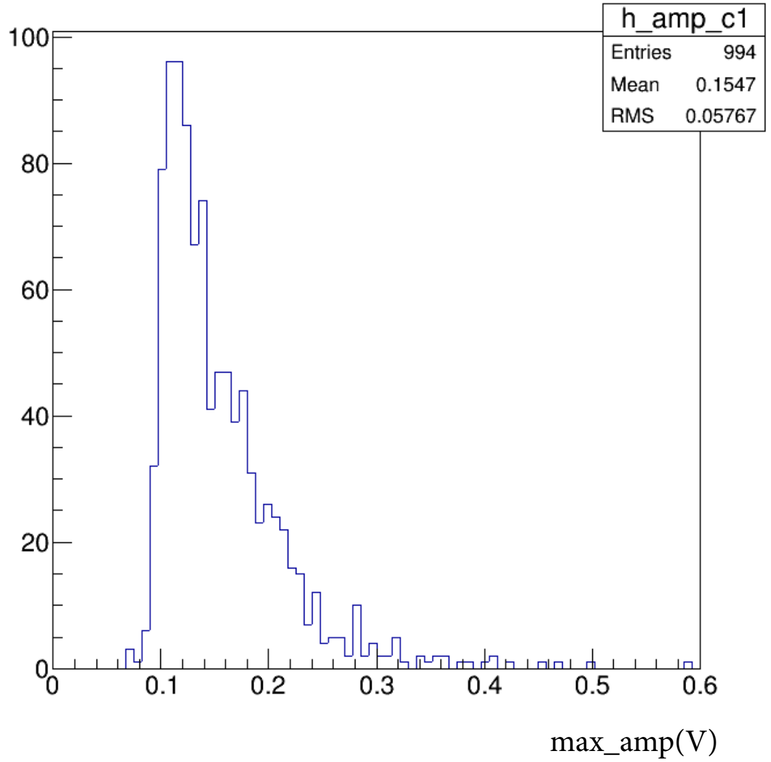
LGAD



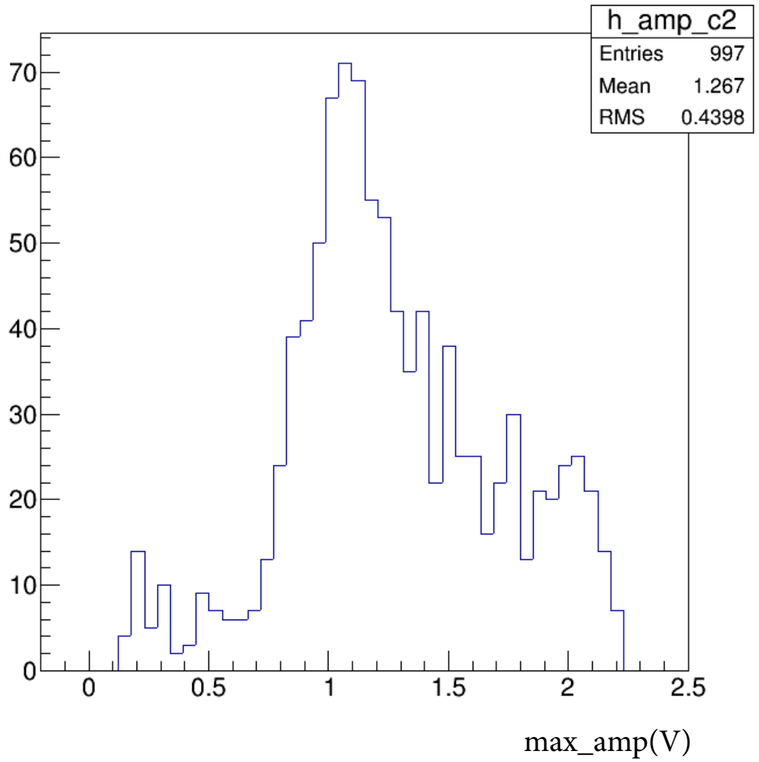
int

Thickness: 285 μm T:-20°C Vbias:150V Radiation dose: 2.3e15 1MeV N_{eq}/cm^2

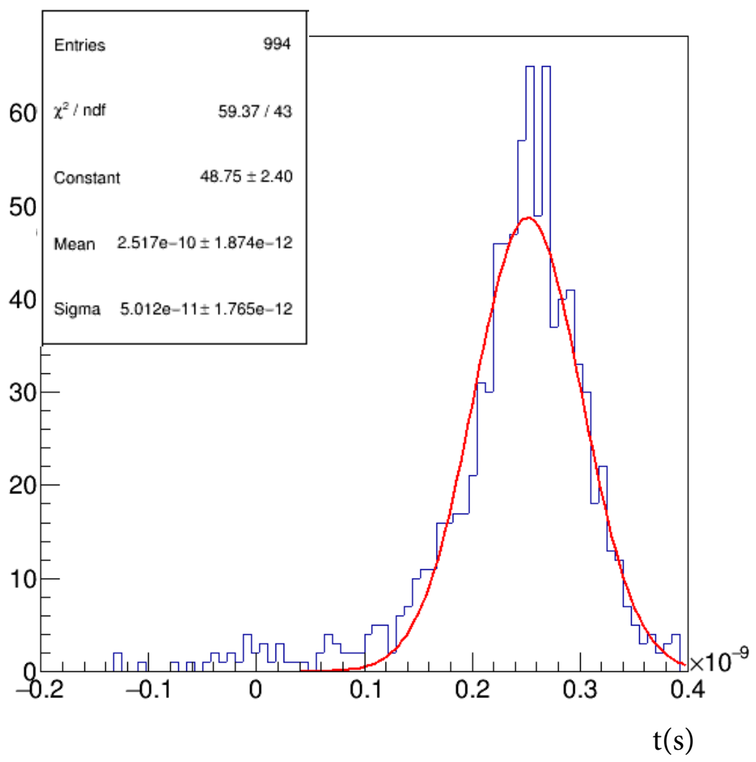
3D



LGAD

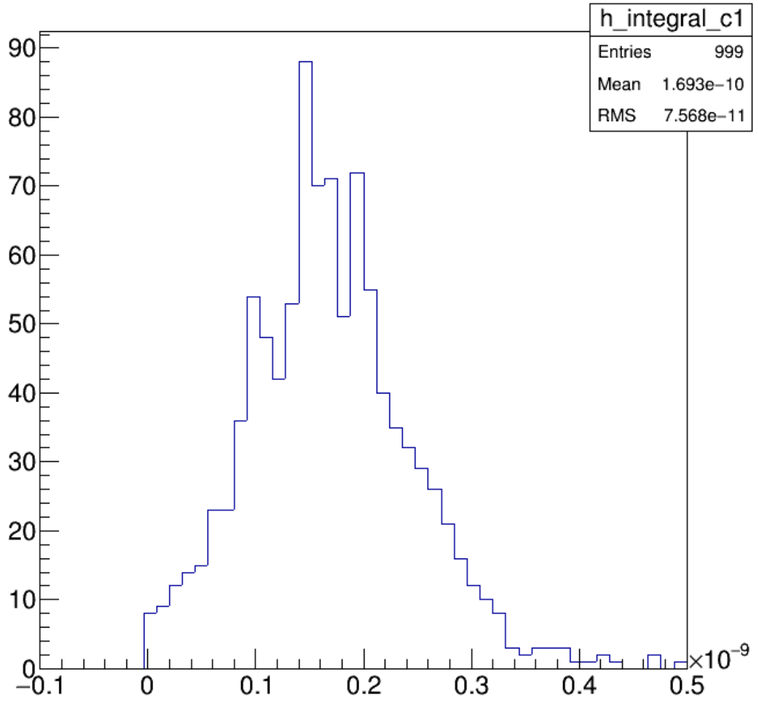


$\Delta t = t_{LGAD} - t_{3D}$



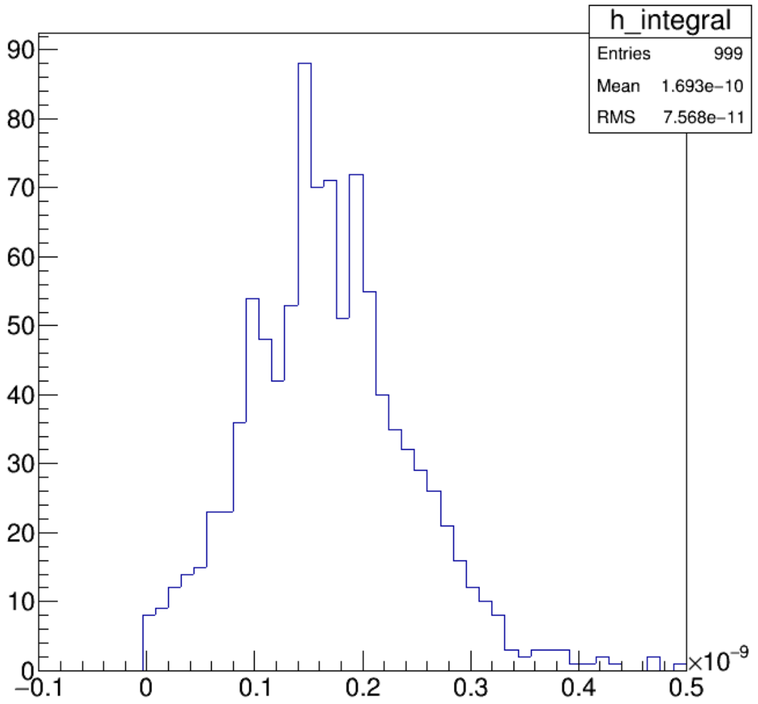
Thickness: 285 μm T:-20°C Vbias:150V Radiation dose: 2.3e15 1MeV N_{eq}/cm^2

3D



int

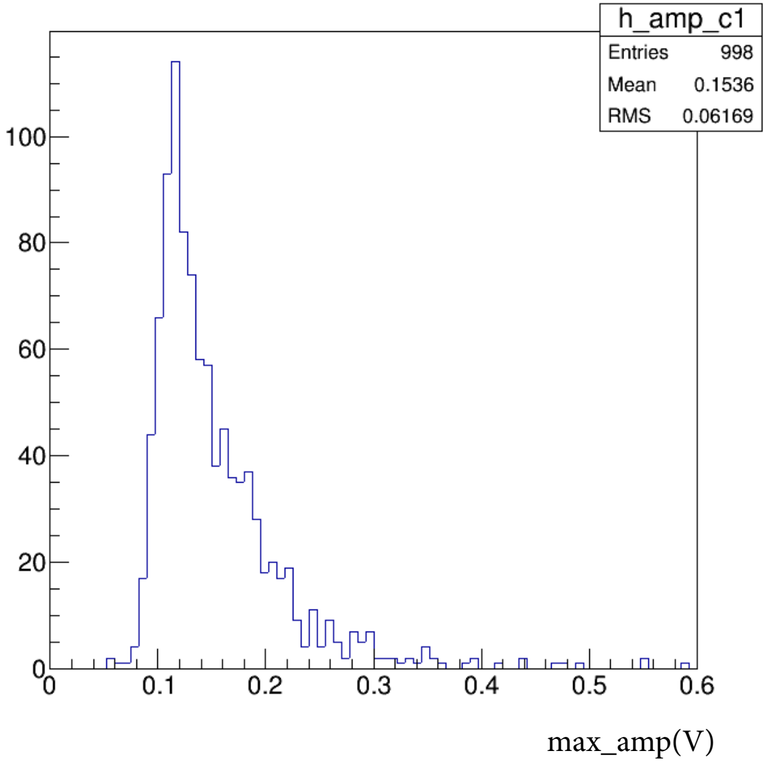
LGAD



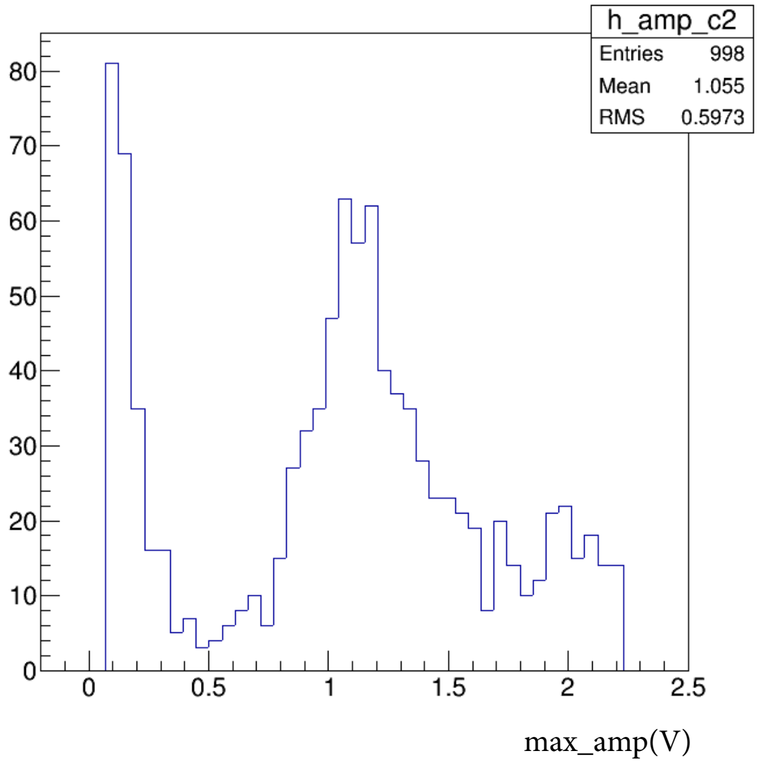
int

Thickness: 285 μm T:-20°C Vbias:200V Radiation dose: 2.3e15 1MeV N_{eq}/cm^2

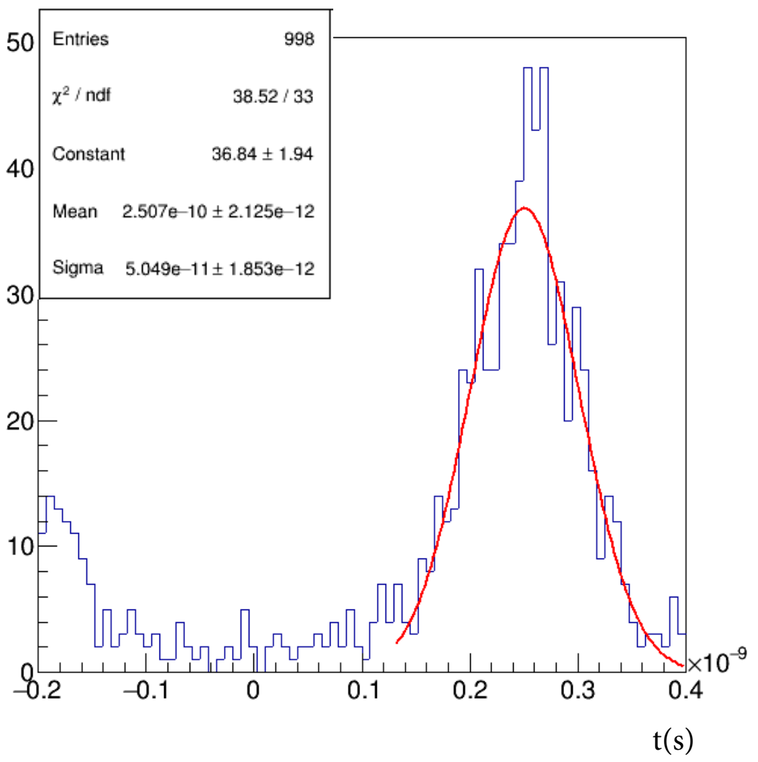
3D



LGAD

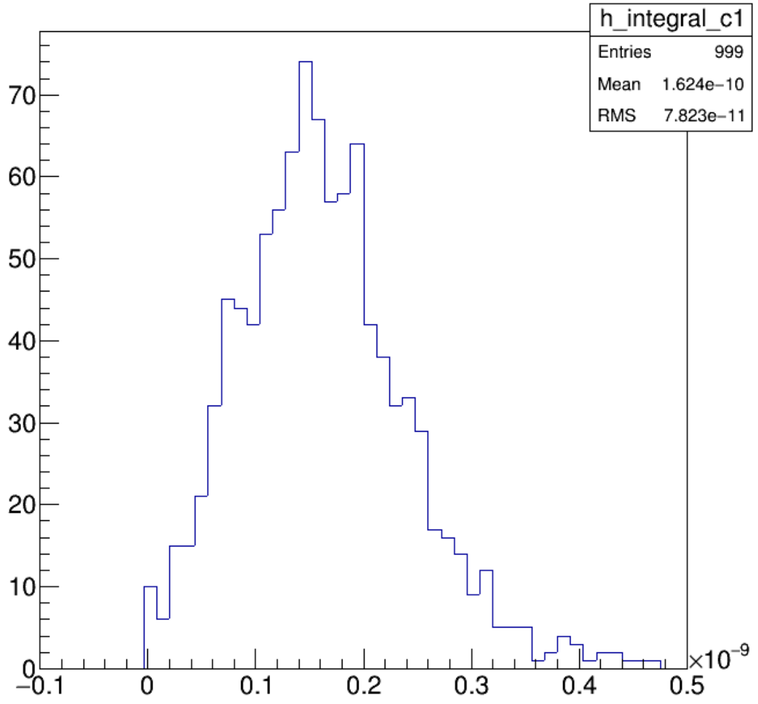


$\Delta t=t_{LGAD}-t_{3D}$

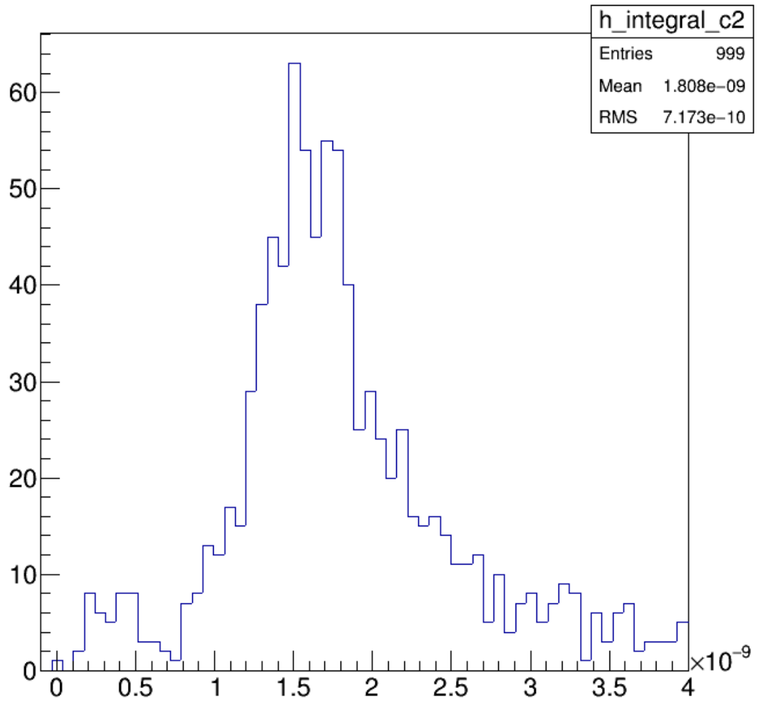


Thickness: 285 μm T:-20°C Vbias:200V Radiation dose: 2.3e15 1MeV N_{eq}/cm^2

3D

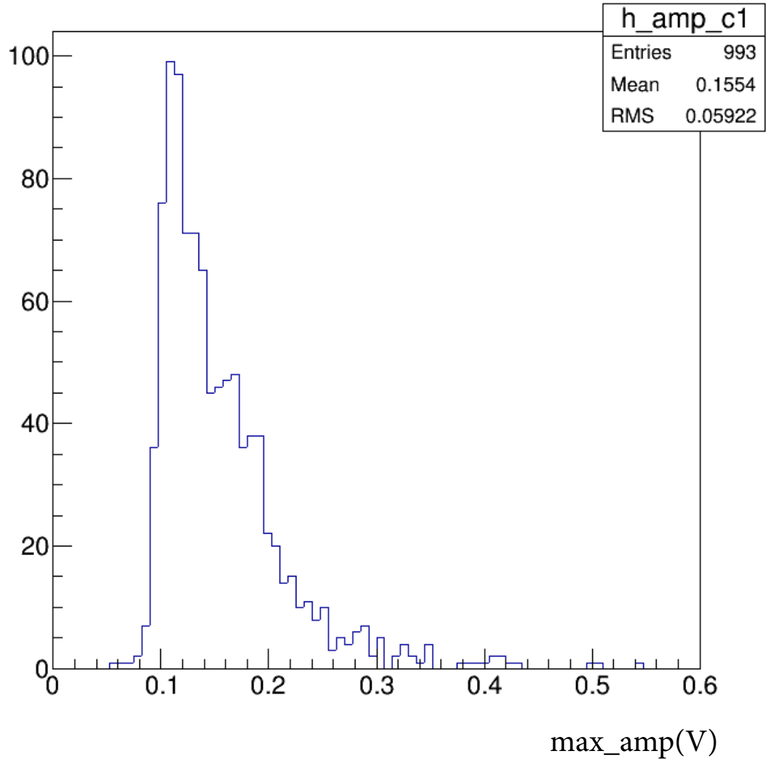


LGAD

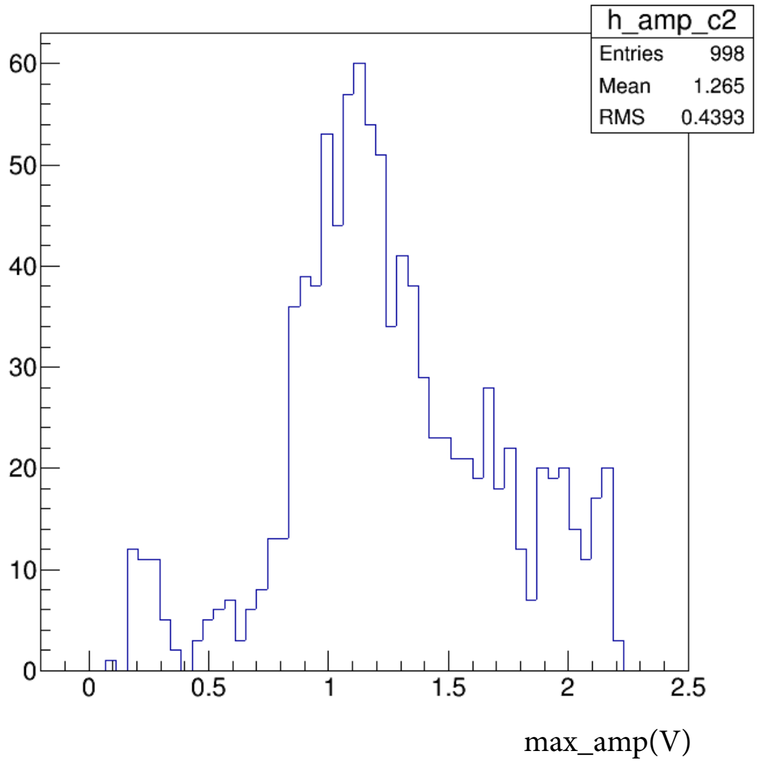


Thickness: 285 μm T:-20°C Vbias:250V Radiation dose: 2.3e15 1MeV N_{eq}/cm^2

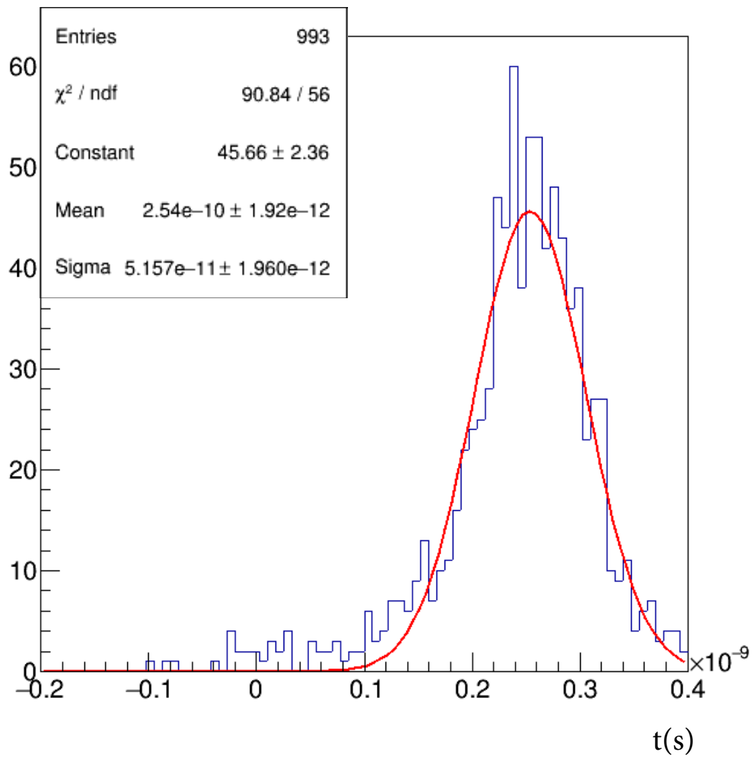
3D



LGAD

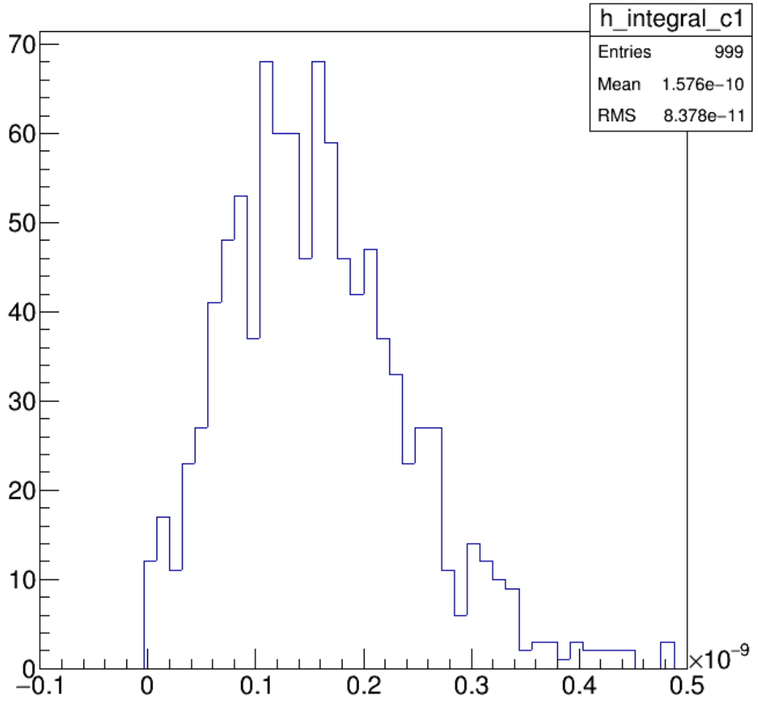


$\Delta t=t_{LGAD}-t_{3D}$



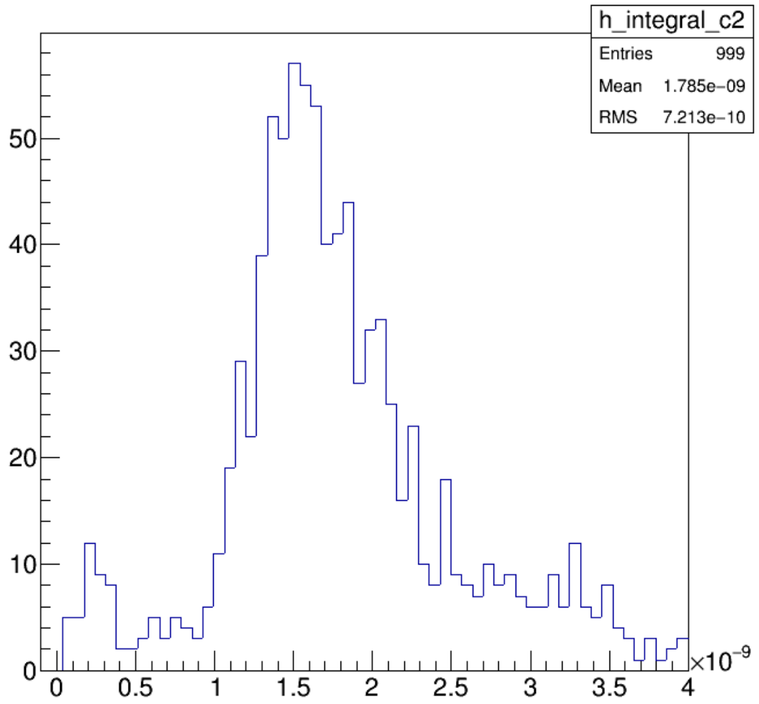
Thickness: 285 μm T:-20°C Vbias:250V Radiation dose: 2.3e15 1MeV N_{eq}/cm^2

3D



int

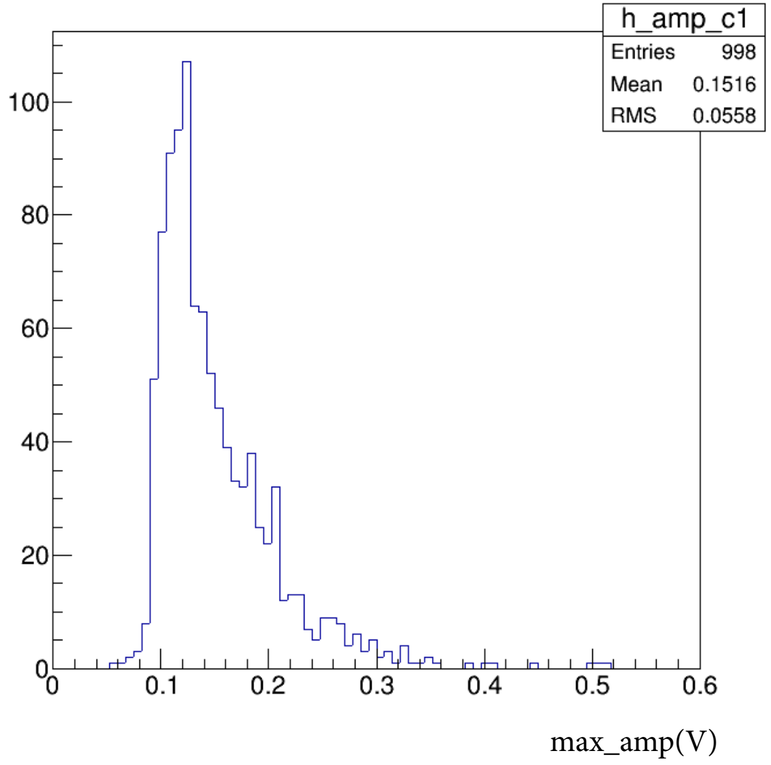
LGAD



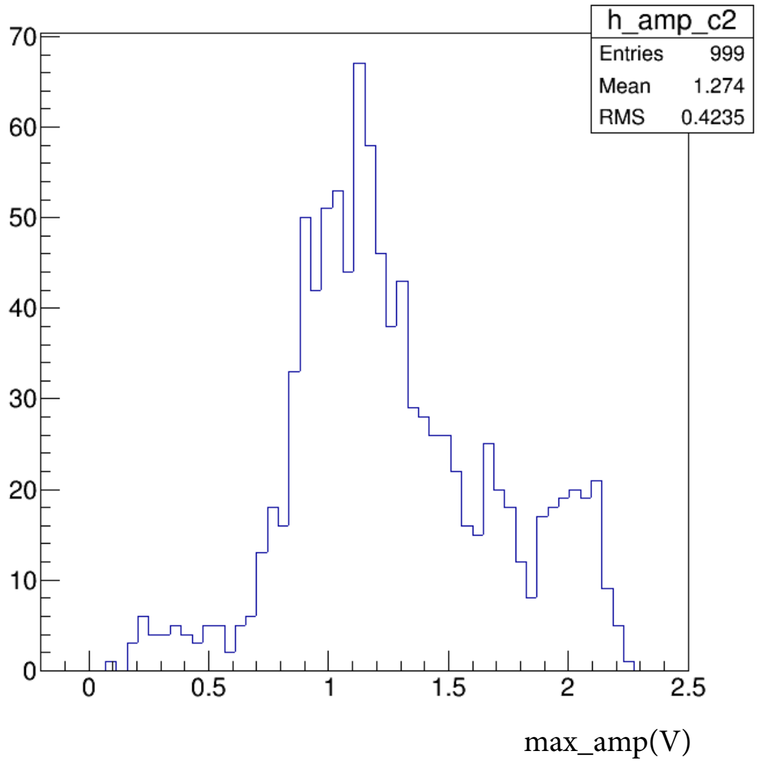
int

Thickness: 285 μm T:-20°C Vbias:300V Radiation dose: 2.3e15 1MeV N_{eq}/cm^2

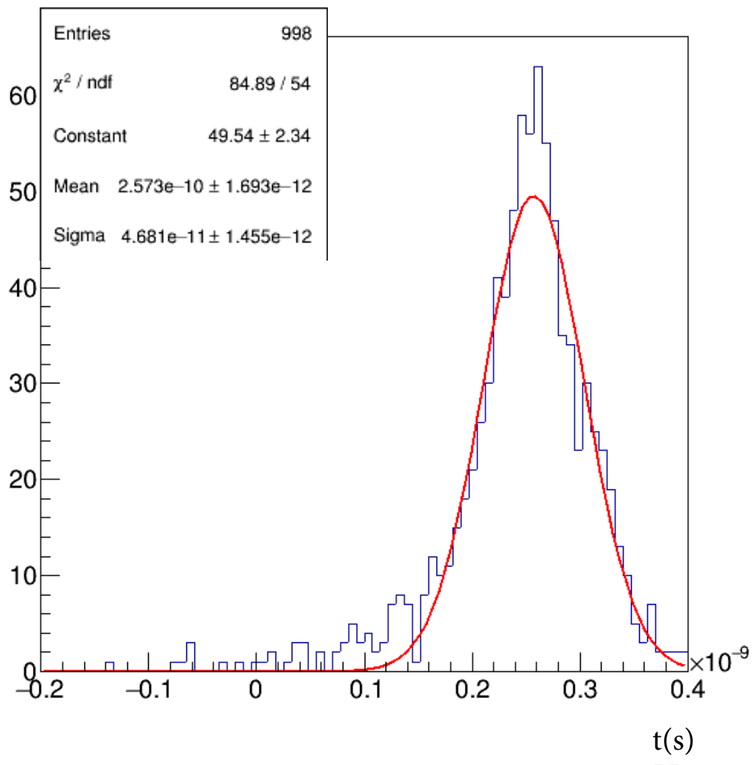
3D



LGAD

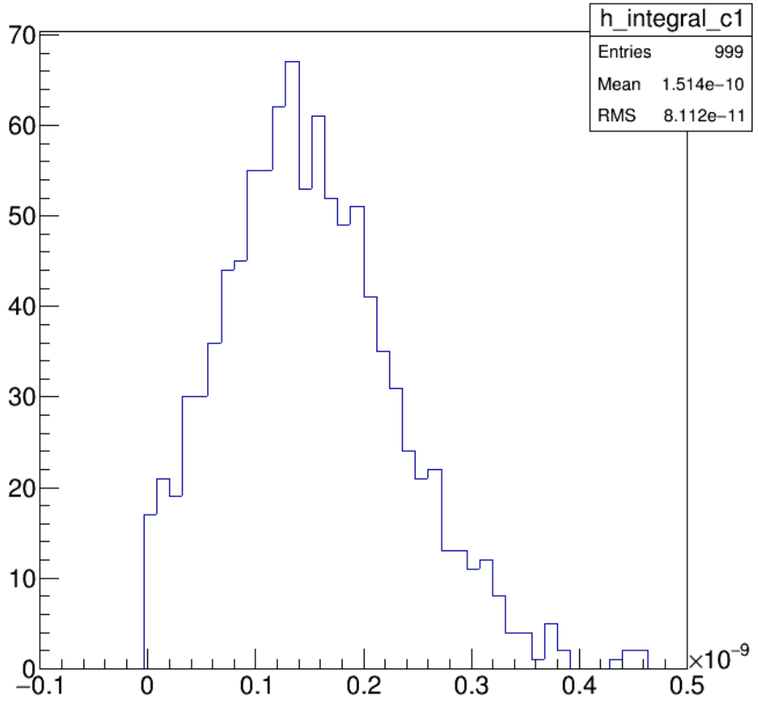


$\Delta t = t_{LGAD} - t_{3D}$



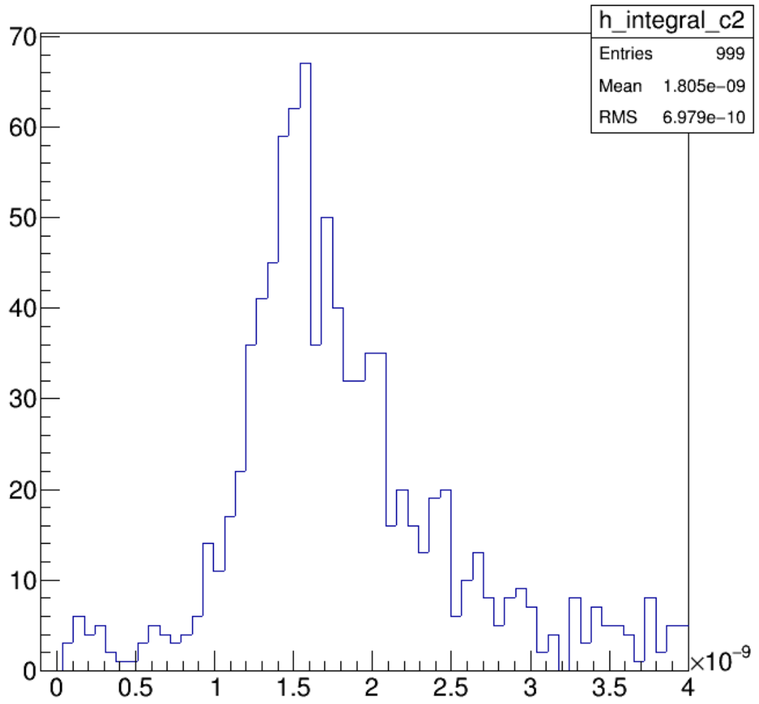
Thickness: 285 μm T:-20°C Vbias:300V Radiation dose: 2.3e15 1MeV N_{eq}/cm^2

3D



int

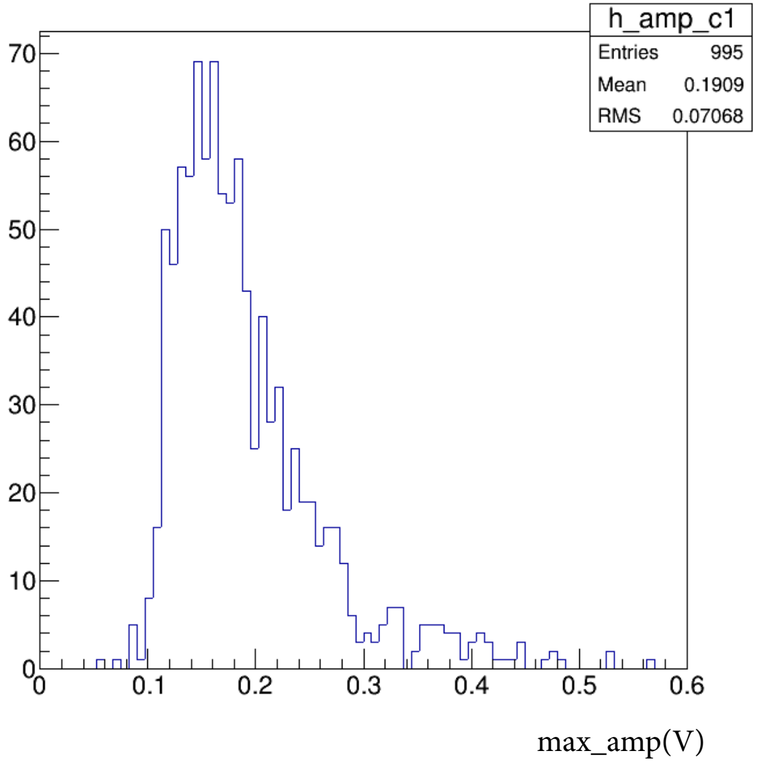
LGAD



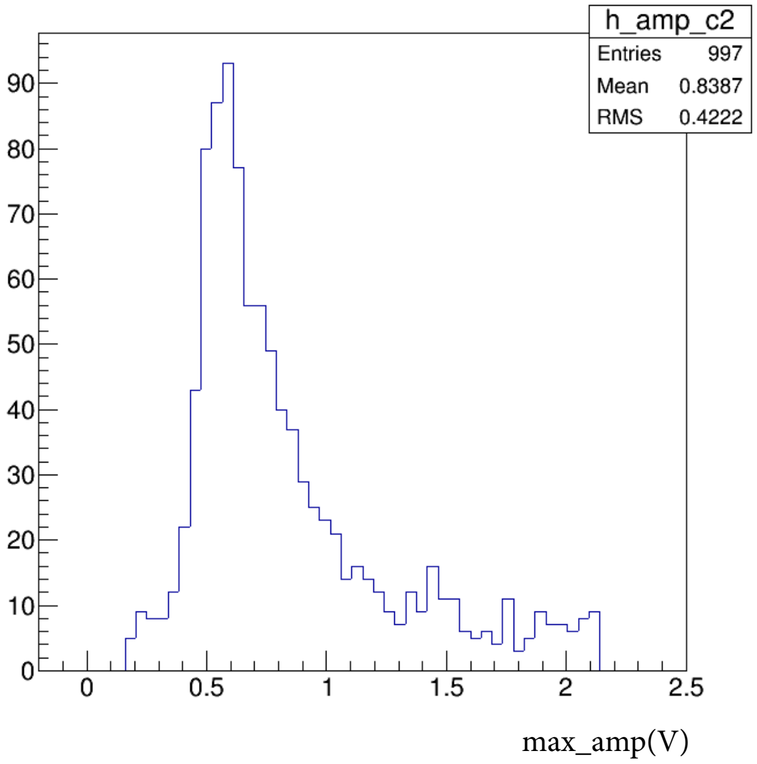
int

Thickness: 285 μm T:+20°C Vbias:100V Radiation dose: 2.3e15 1MeV N_{eq}/cm^2

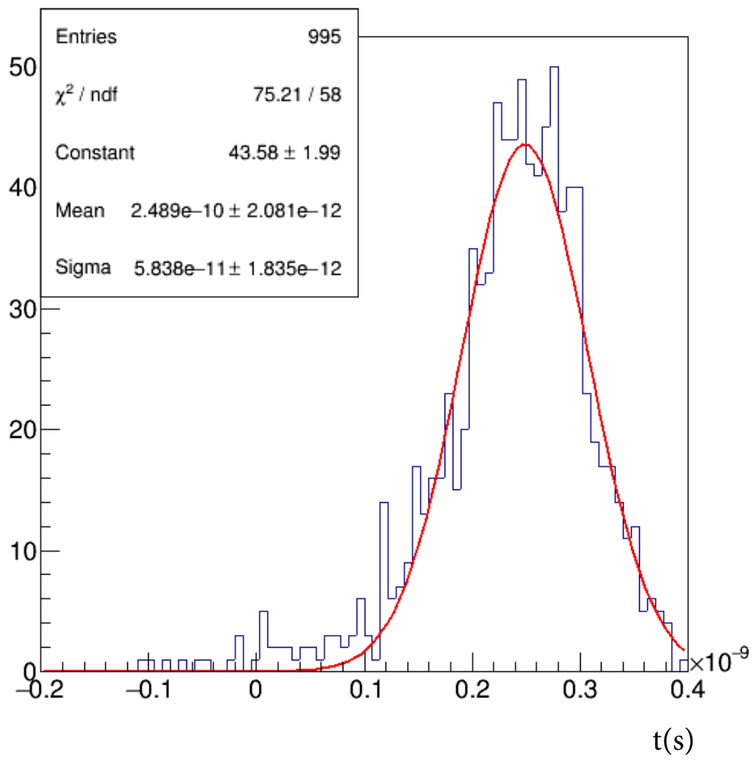
3D



LGAD

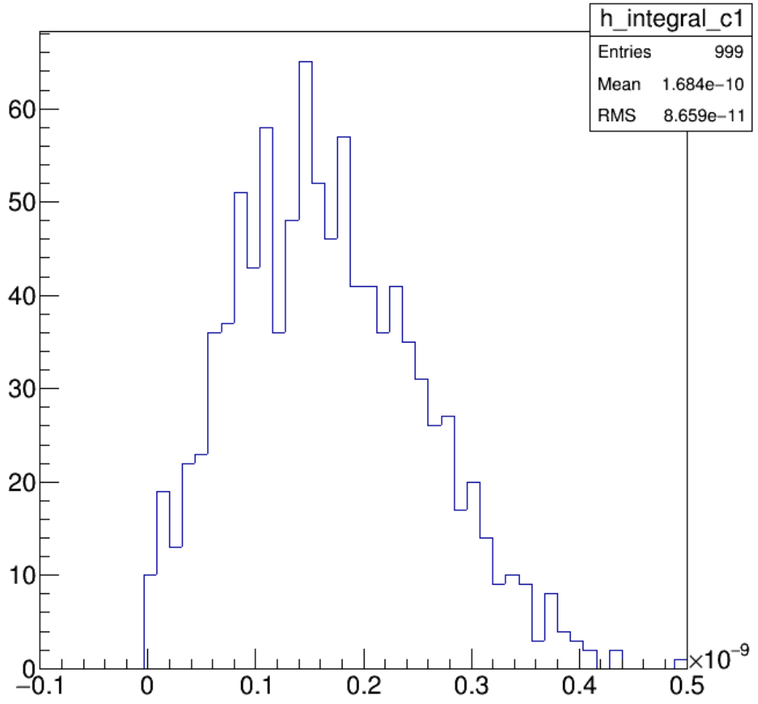


$\Delta t = t_{LGAD} - t_{3D}$

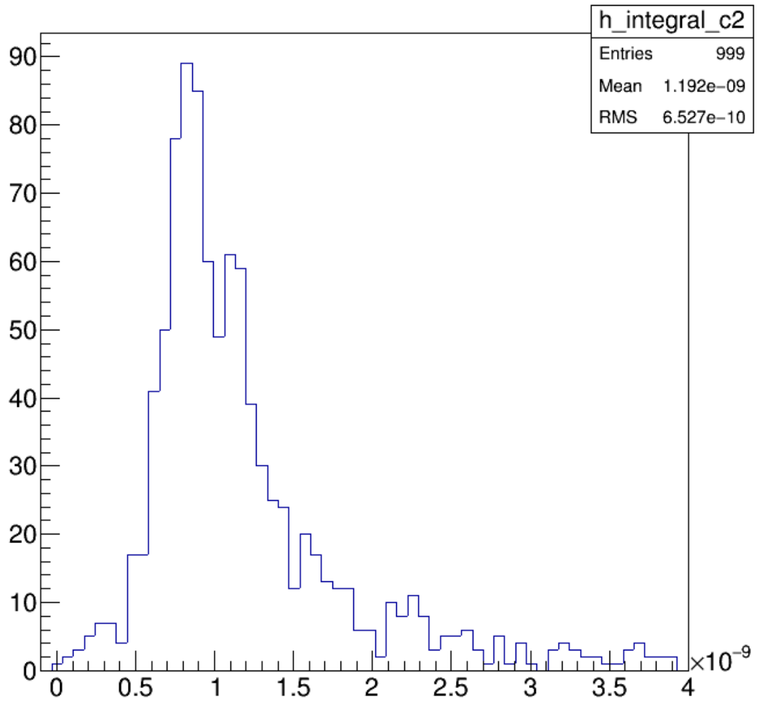


Thickness: 285 μm T:+20°C Vbias:100V Radiation dose: 2.3e15 1MeV N_{eq}/cm^2

3D

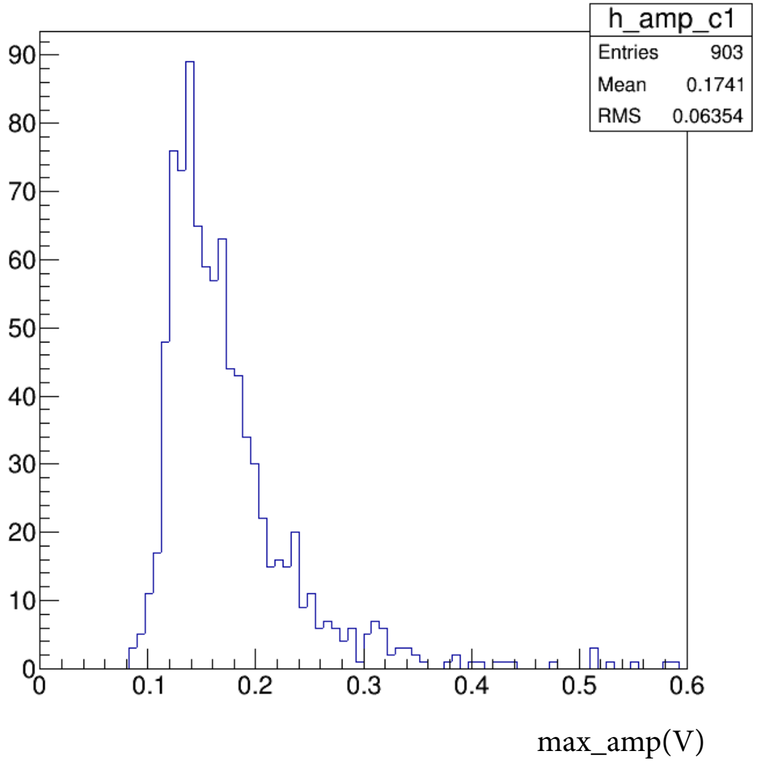


LGAD

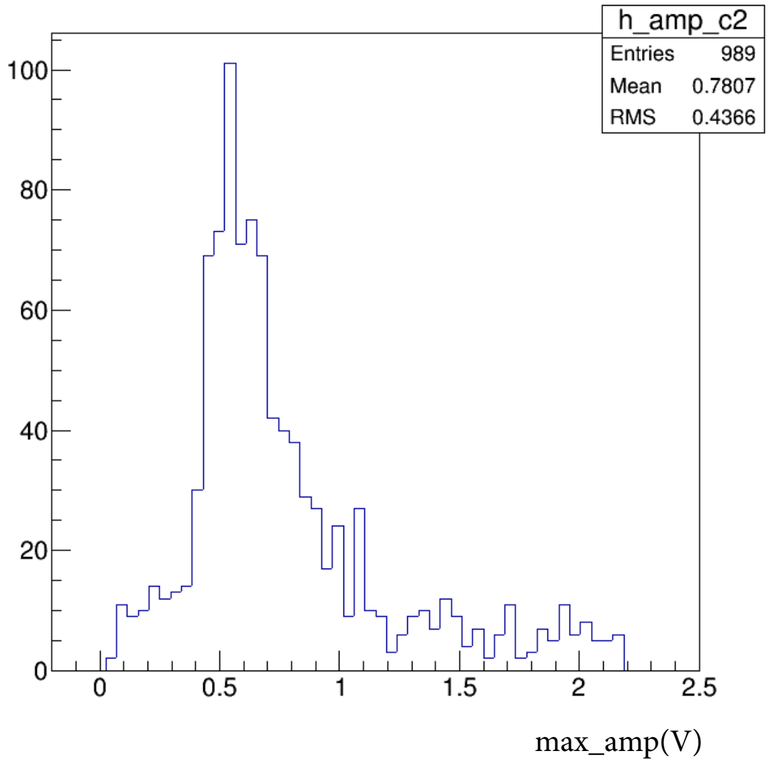


Thickness: 285 μm T:+20°C Vbias:150V Radiation dose: 2.3e15 1MeV N_{eq}/cm^2

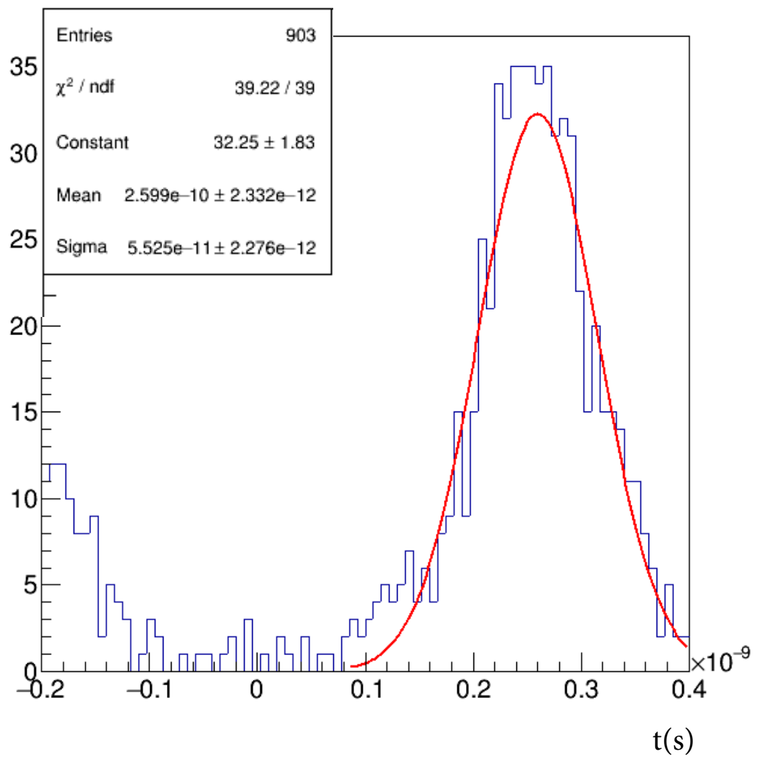
3D



LGAD

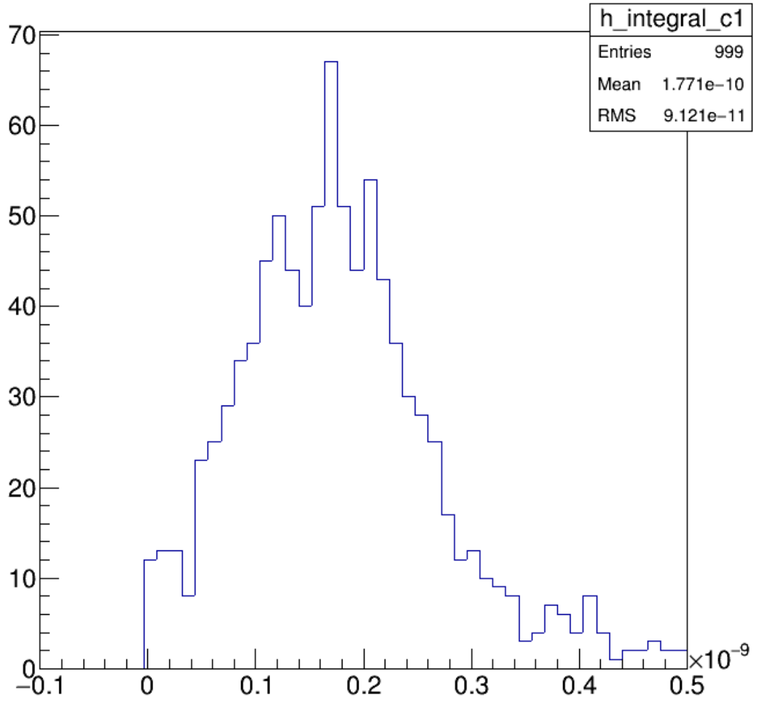


$\Delta t = t_{LGAD} - t_{3D}$



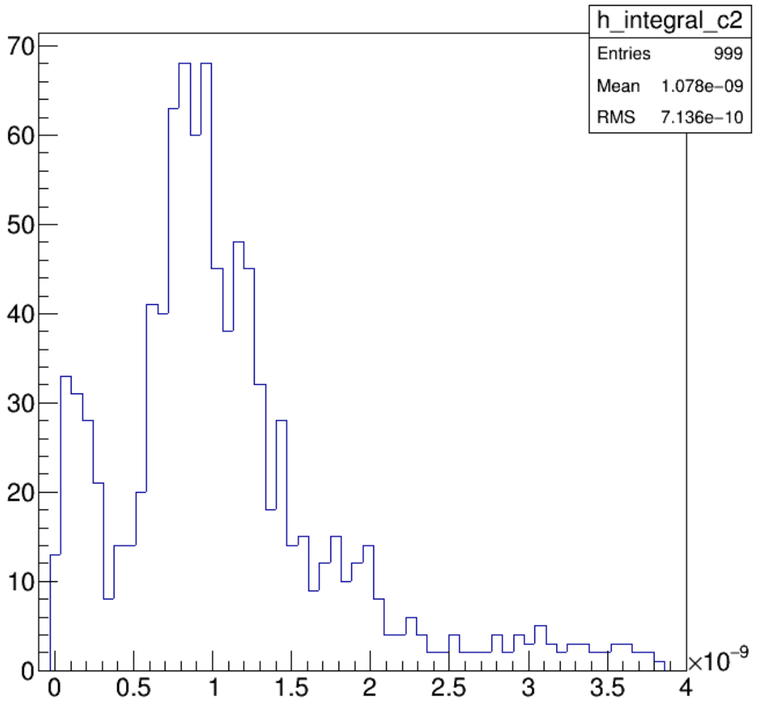
Thickness: 285 μm T:+20°C Vbias:150V Radiation dose: 2.3e15 1MeV N_{eq}/cm^2

3D



int

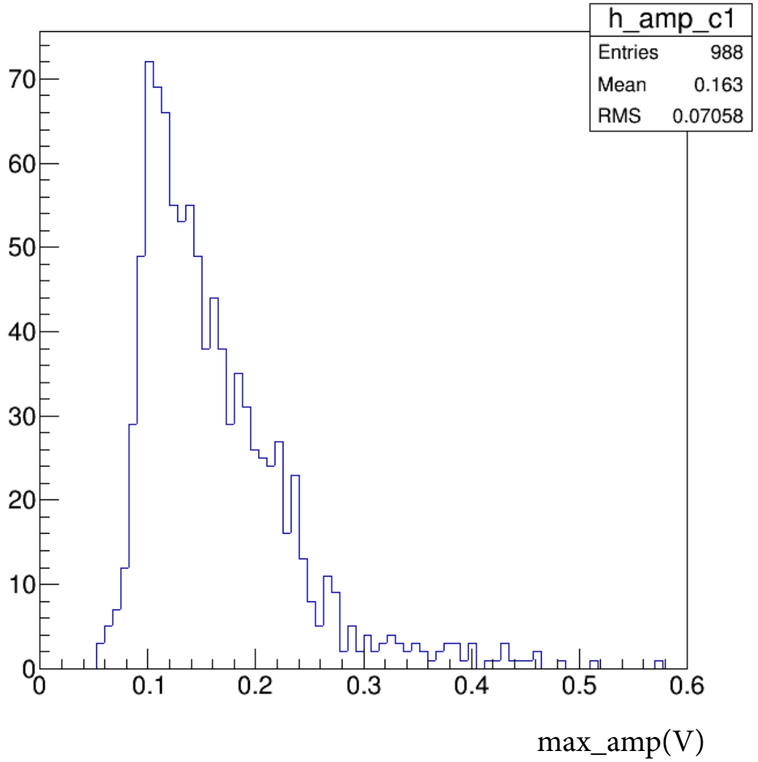
LGAD



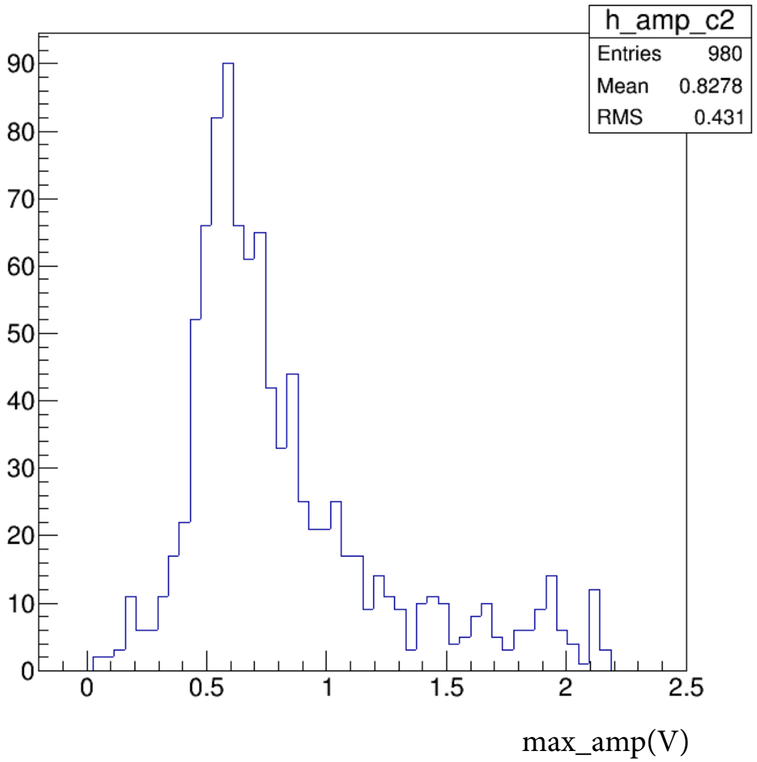
int

Thickness: 285 μm T:+20°C Vbias:200V Radiation dose: 2.3e15 1MeV N_{eq}/cm^2

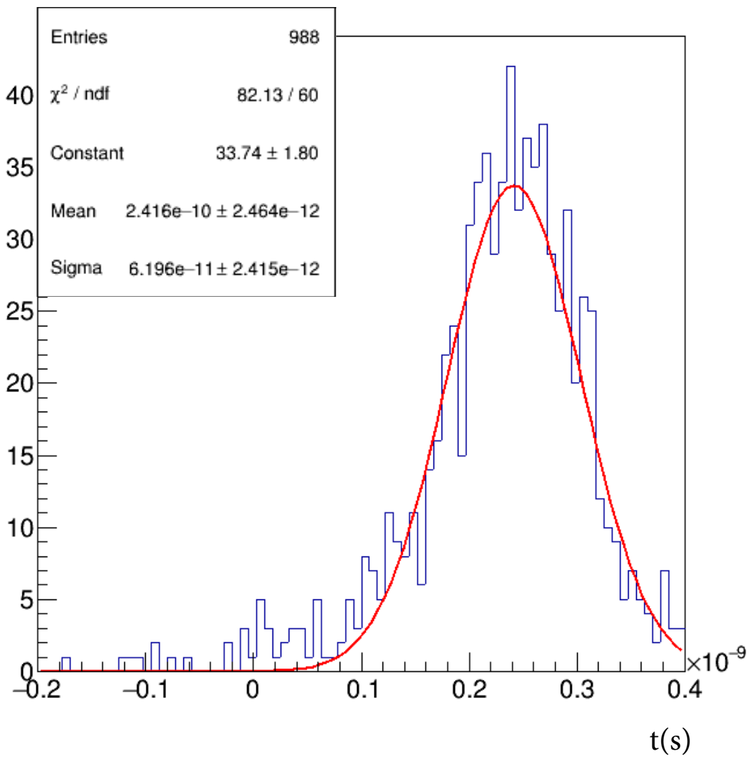
3D



LGAD

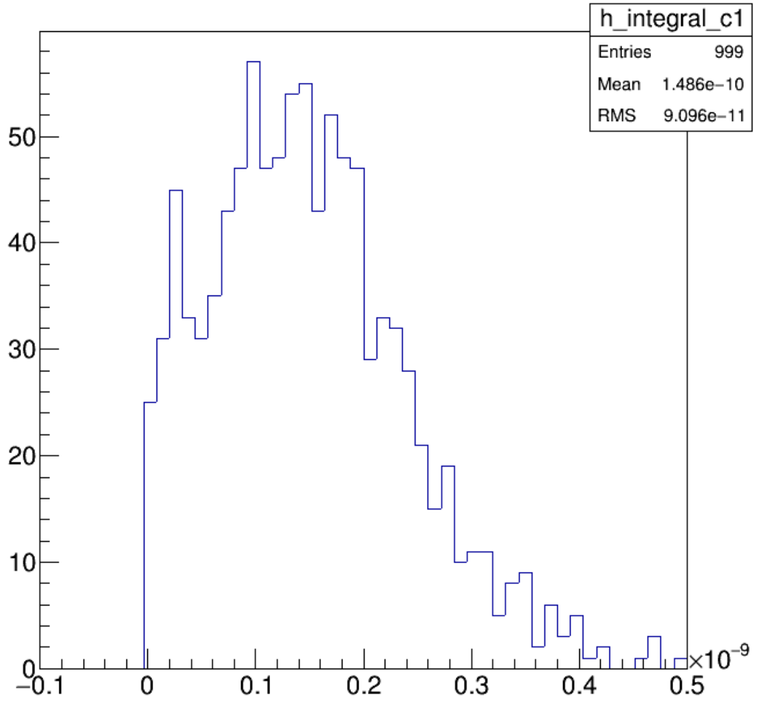


$\Delta t = t_{LGAD} - t_{3D}$



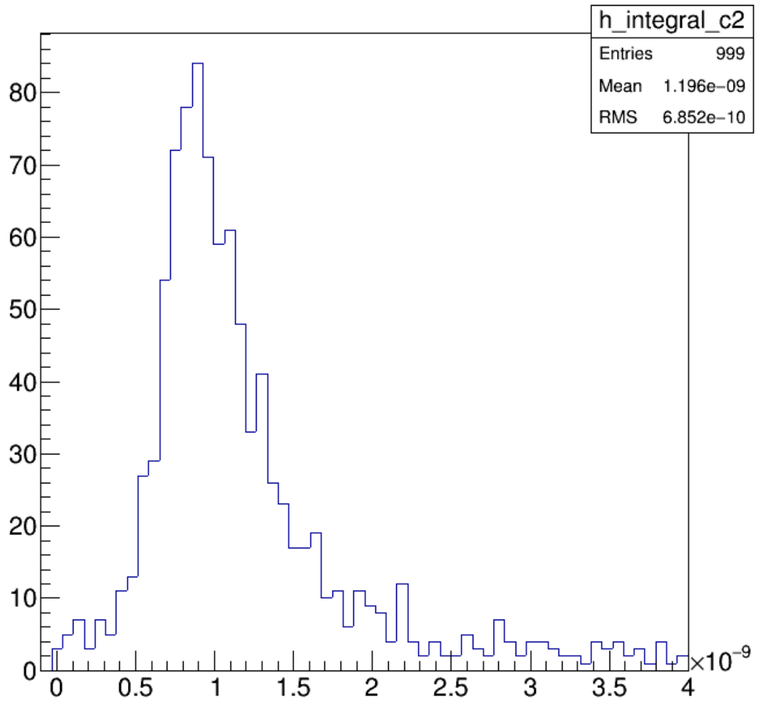
Thickness: 285 μm T:+20°C Vbias:200V Radiation dose: 2.3e15 1MeV N_{eq}/cm^2

3D



int

LGAD

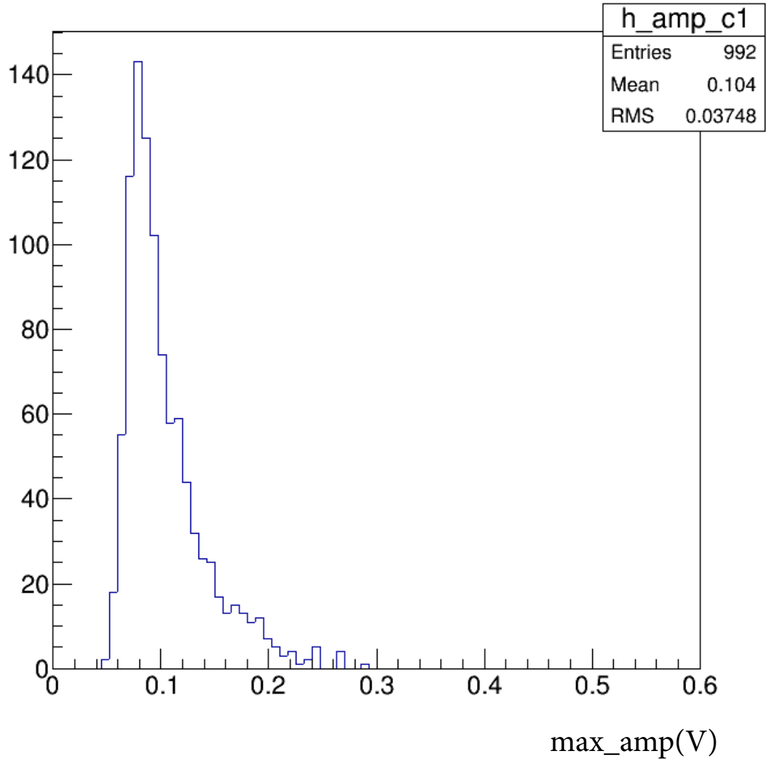


int

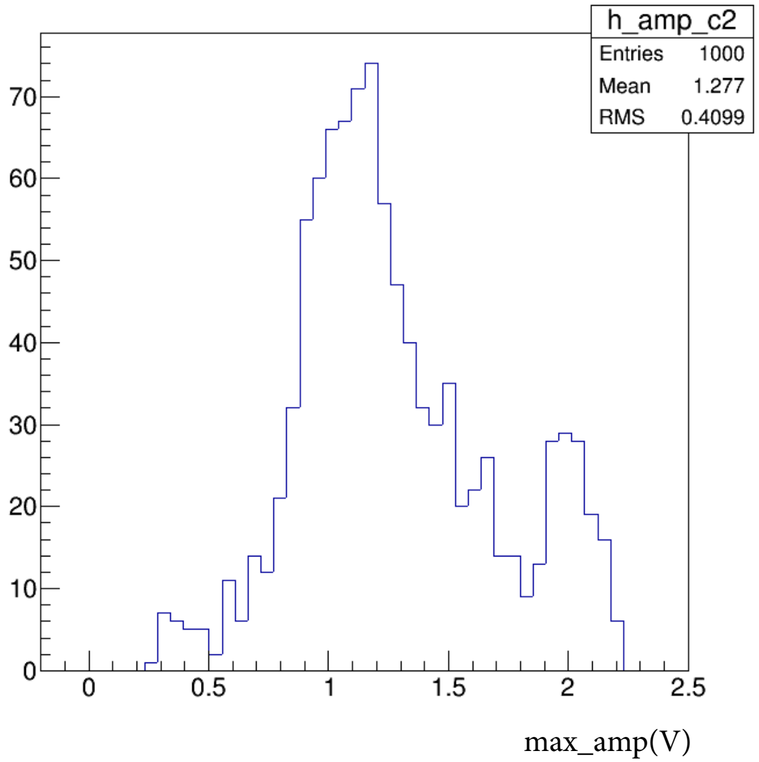
Thickness: 235 μm Radiation dose: non-irr

Thickness: 235 μm T:-20°C Vbias:50V Radiation dose: non-irr

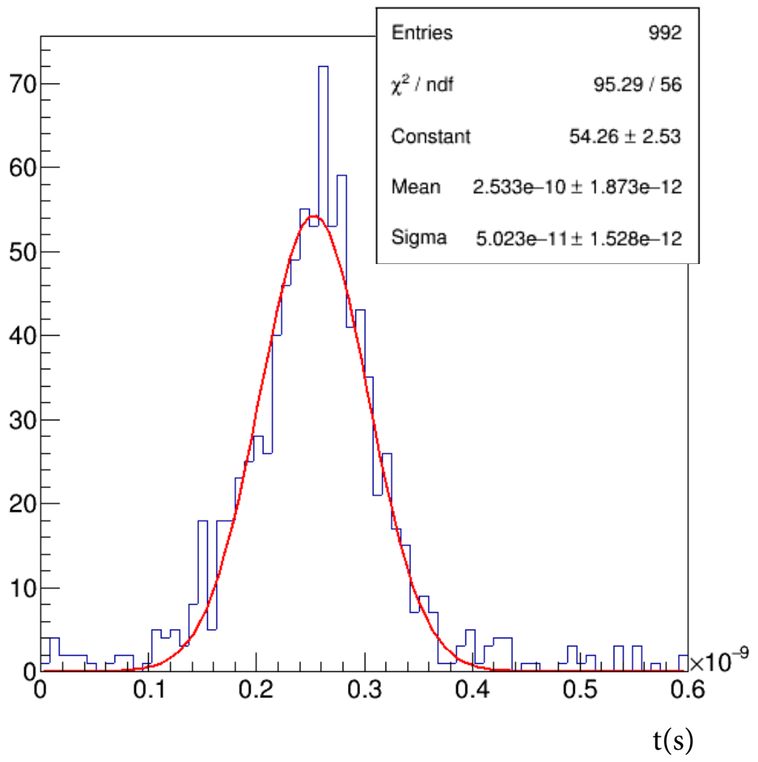
3D



LGAD

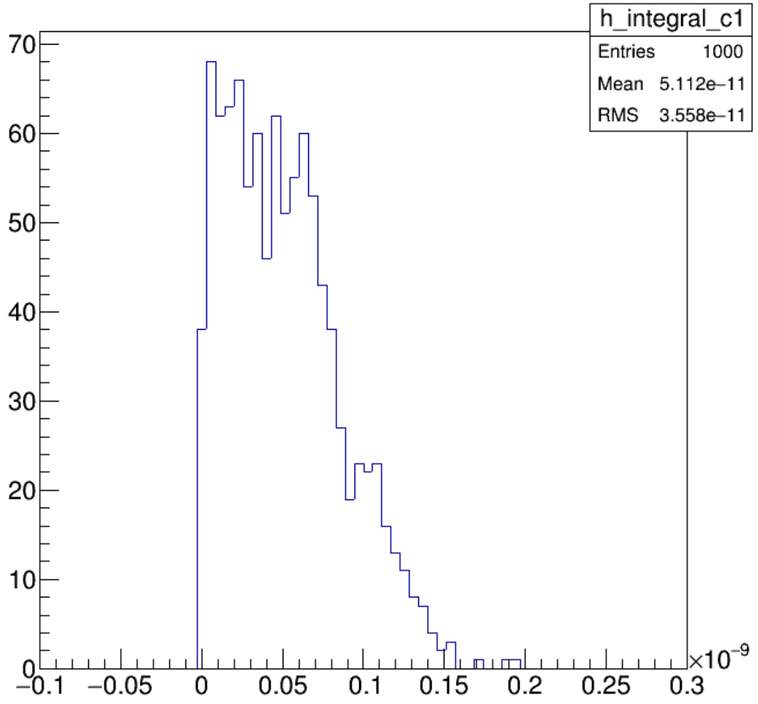


$\Delta t = t_{LGAD} - t_{3D}$



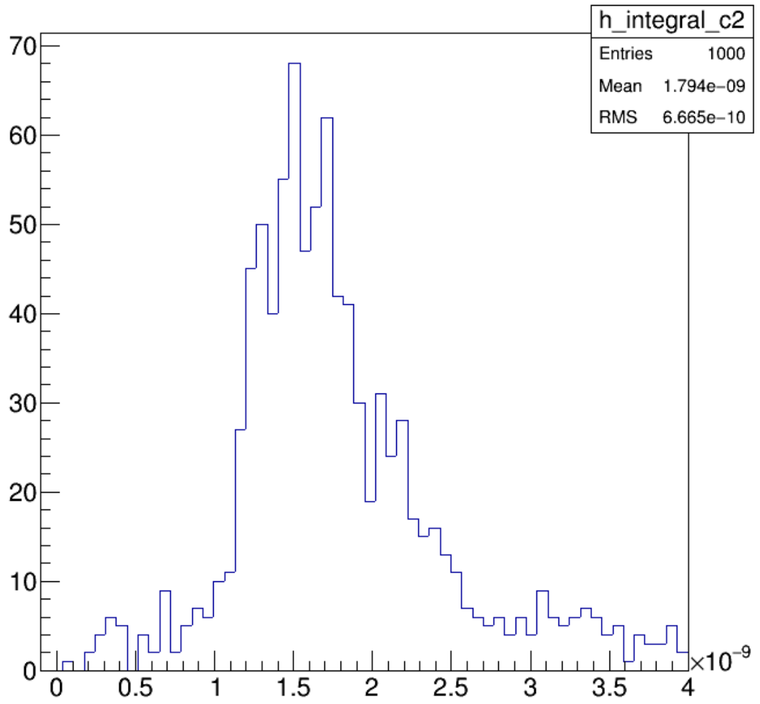
Thickness: 235 μm T:-20°C Vbias:50V Radiation dose: non-irr

3D



int

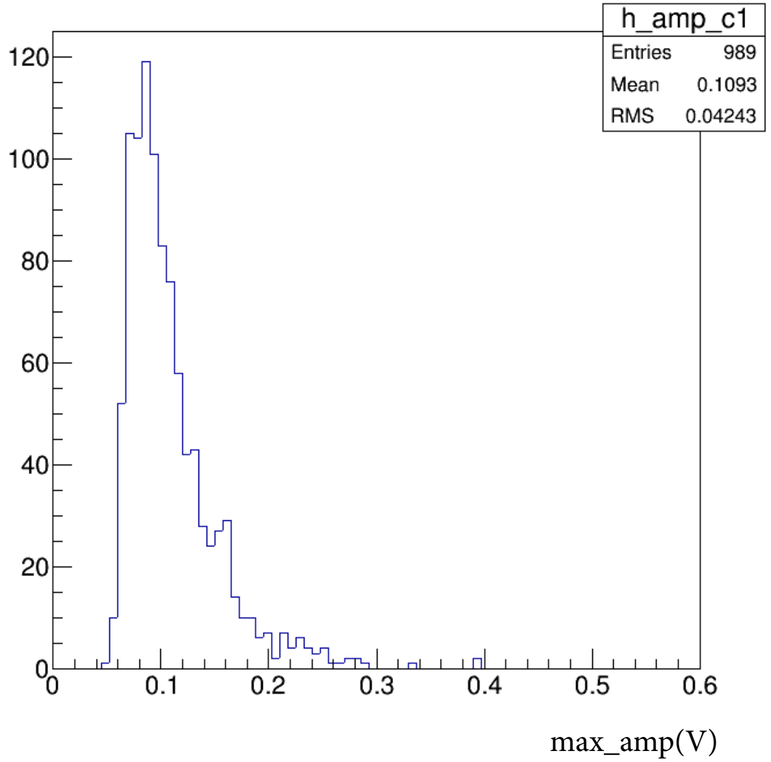
LGAD



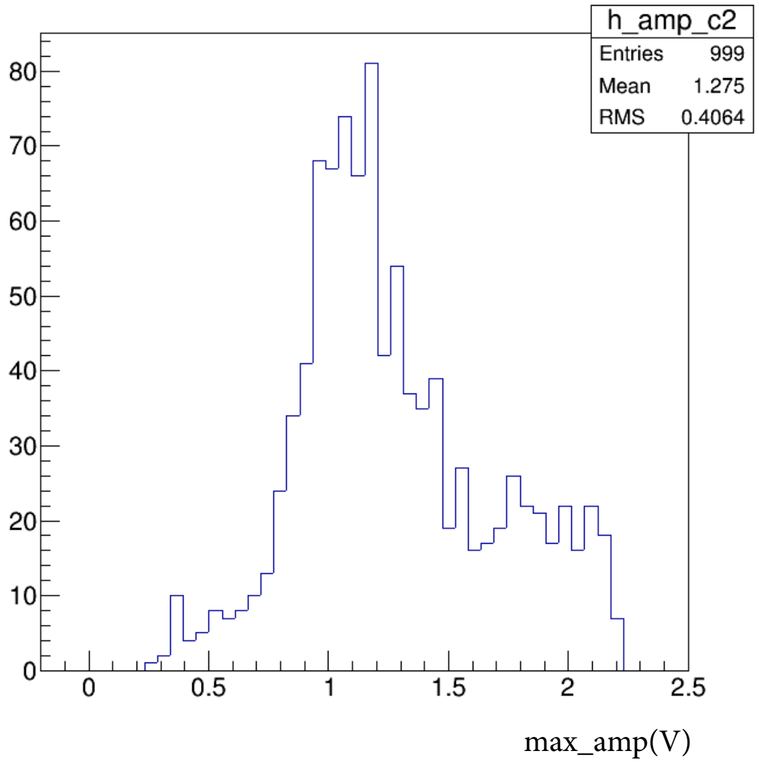
int

Thickness: 235 μm T:-20°C Vbias:100V Radiation dose: non-irr

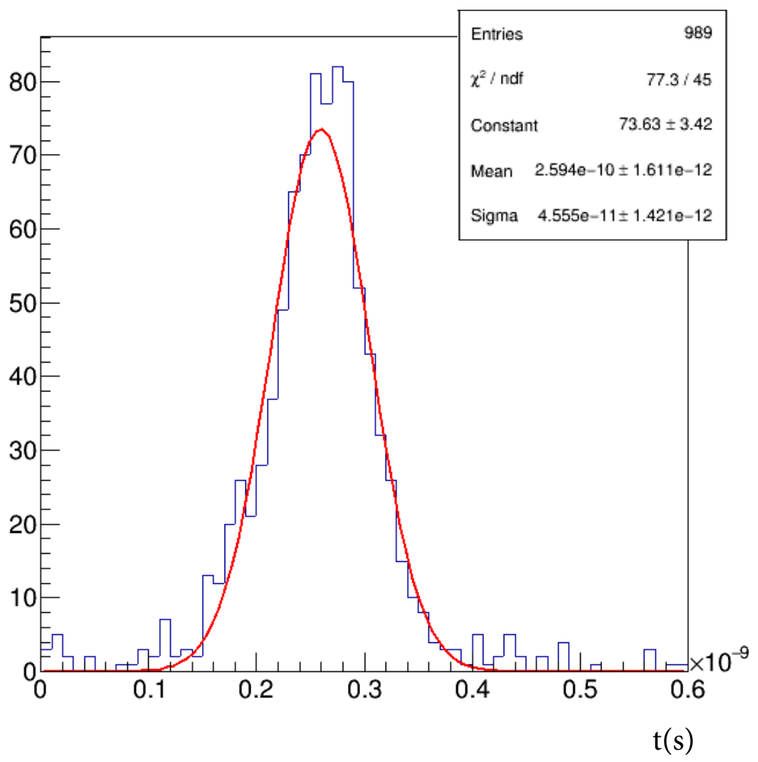
3D



LGAD

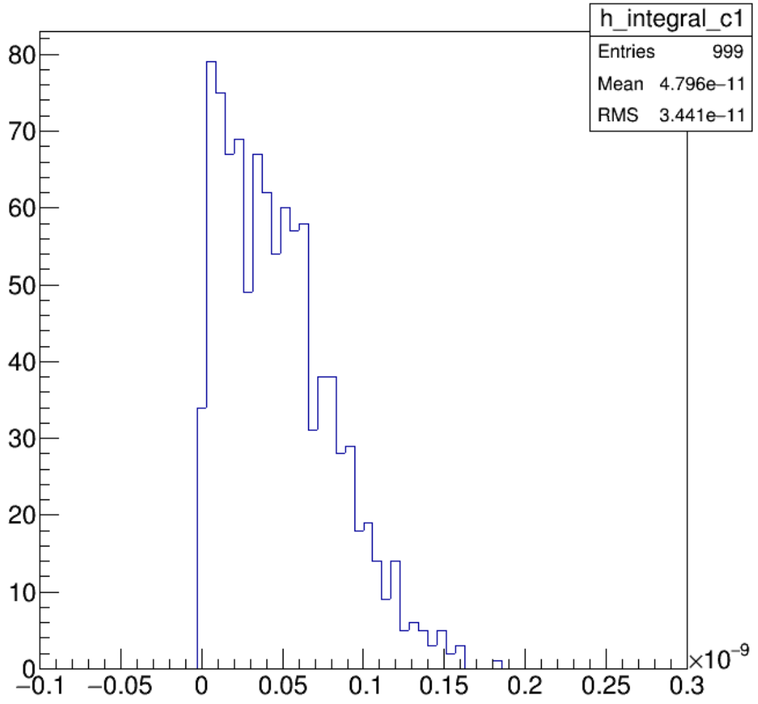


$\Delta t = t_{LGAD} - t_{3D}$



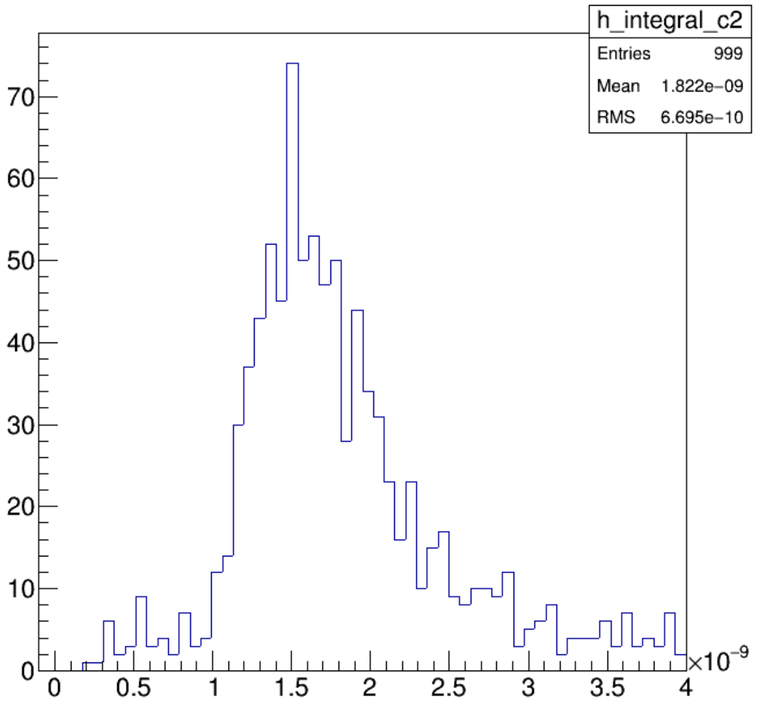
Thickness: 235 μm T:-20°C Vbias:100V Radiation dose: non-irr

3D



int

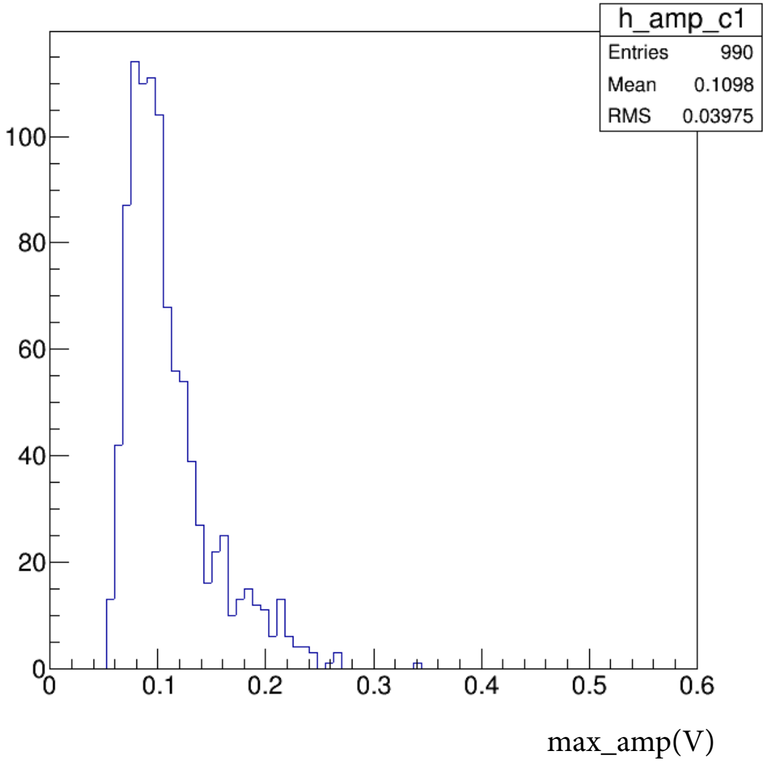
LGAD



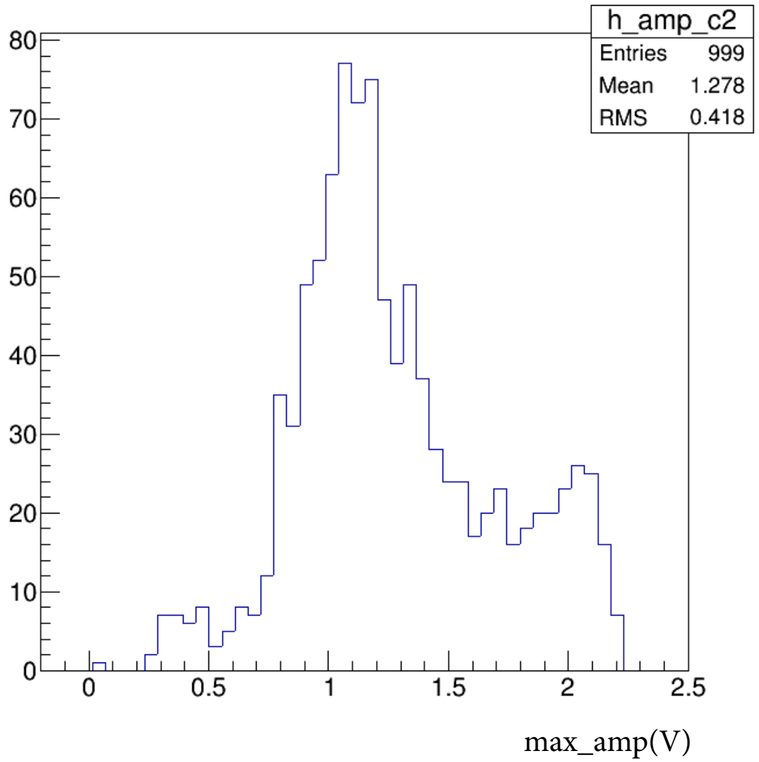
int

Thickness: 235 μm T:-20°C Vbias:150V Radiation dose: non-irr

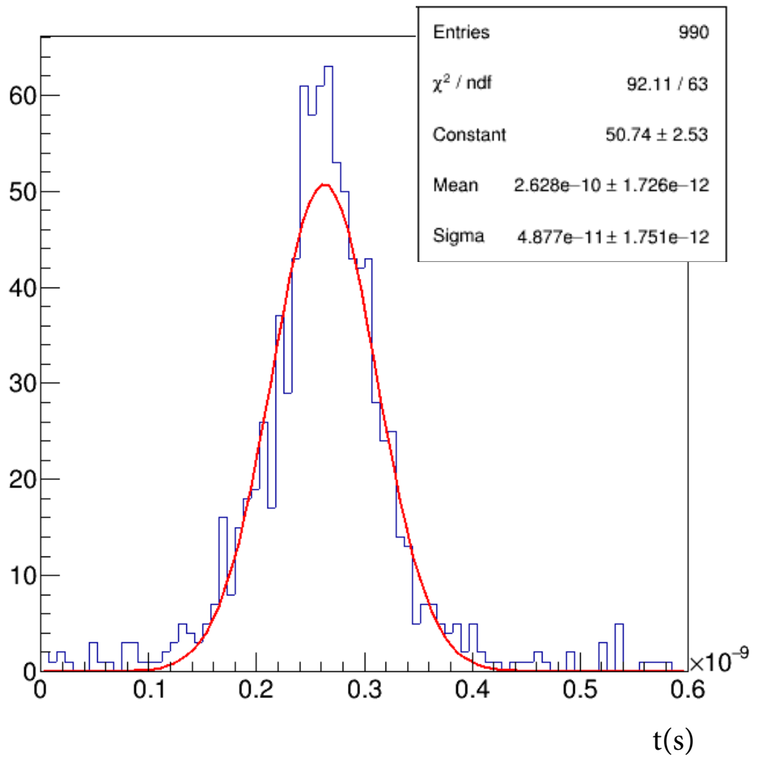
3D



LGAD

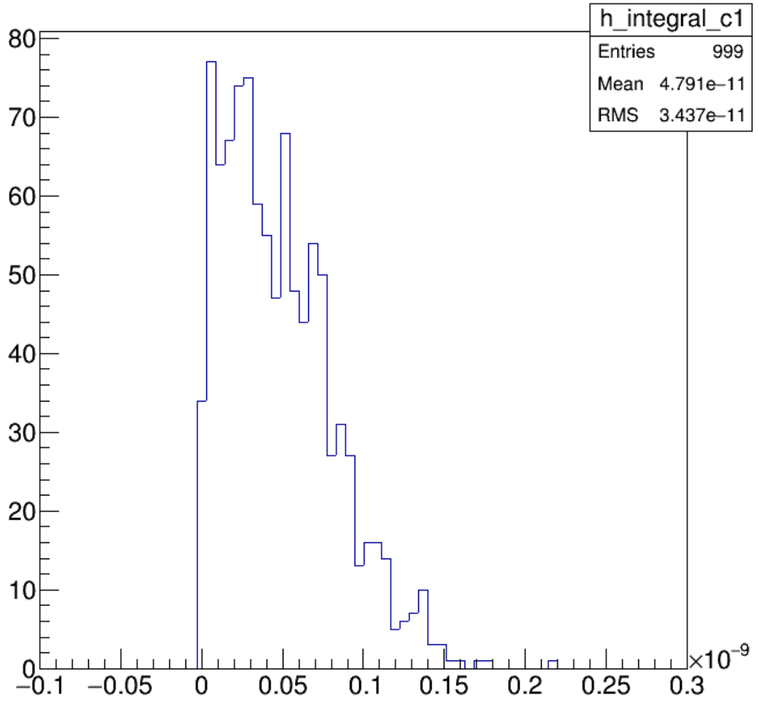


$\Delta t = t_{LGAD} - t_{3D}$



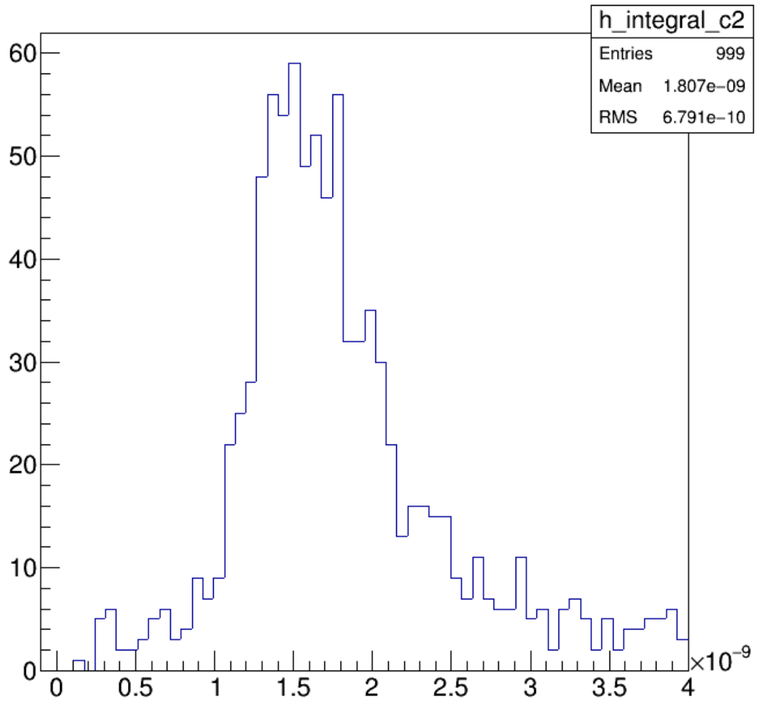
Thickness: 235 μm T:-20°C Vbias:150V Radiation dose: non-irr

3D



int

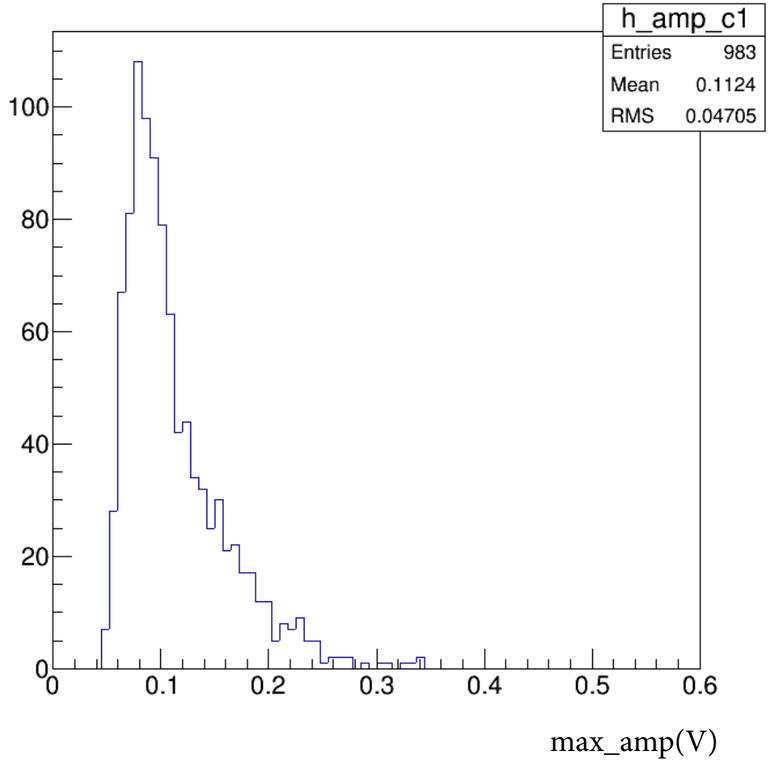
LGAD



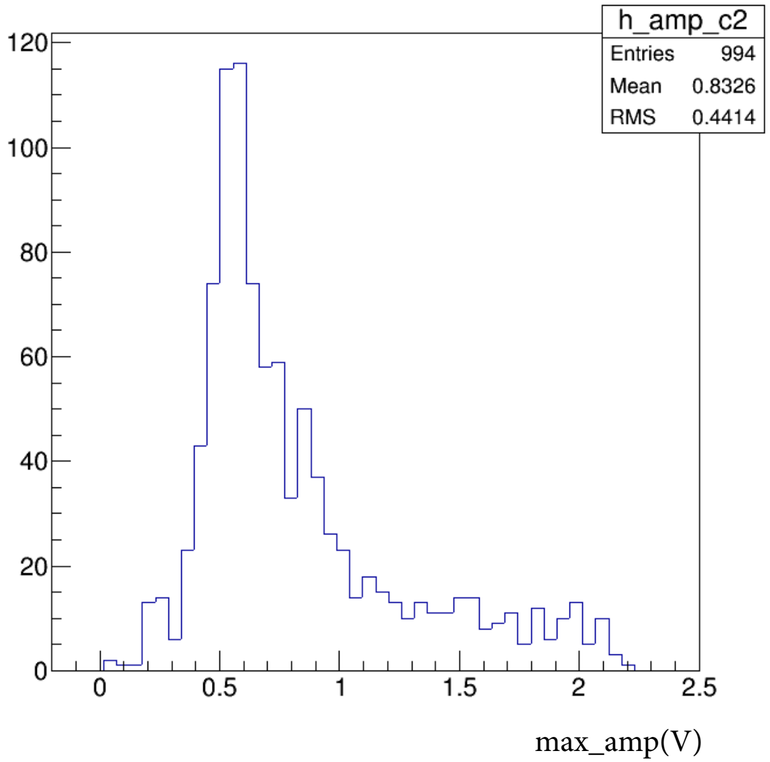
int

Thickness: 235 μm T:+20°C Vbias:50V Radiation dose: non-irr

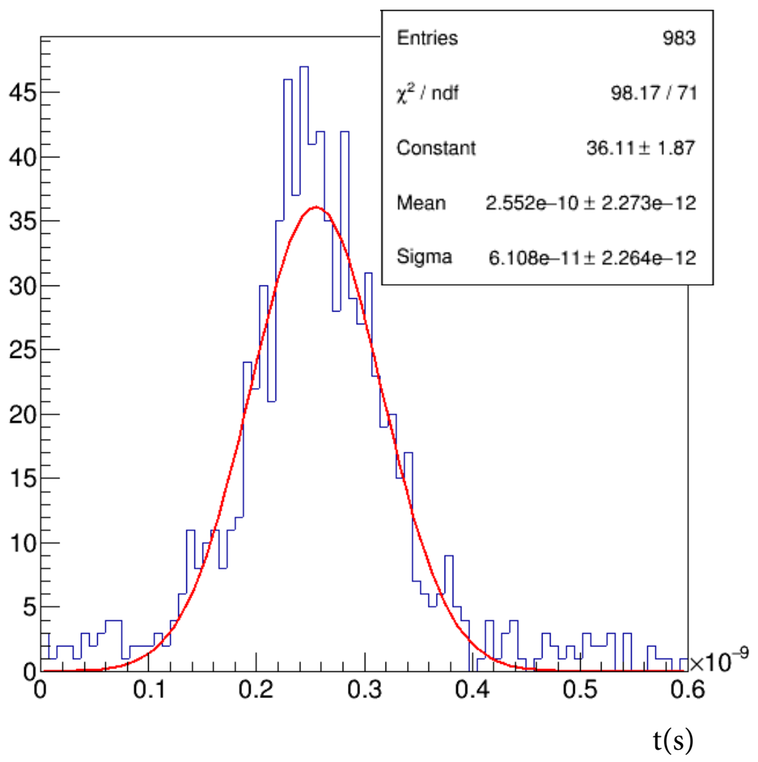
3D



LGAD

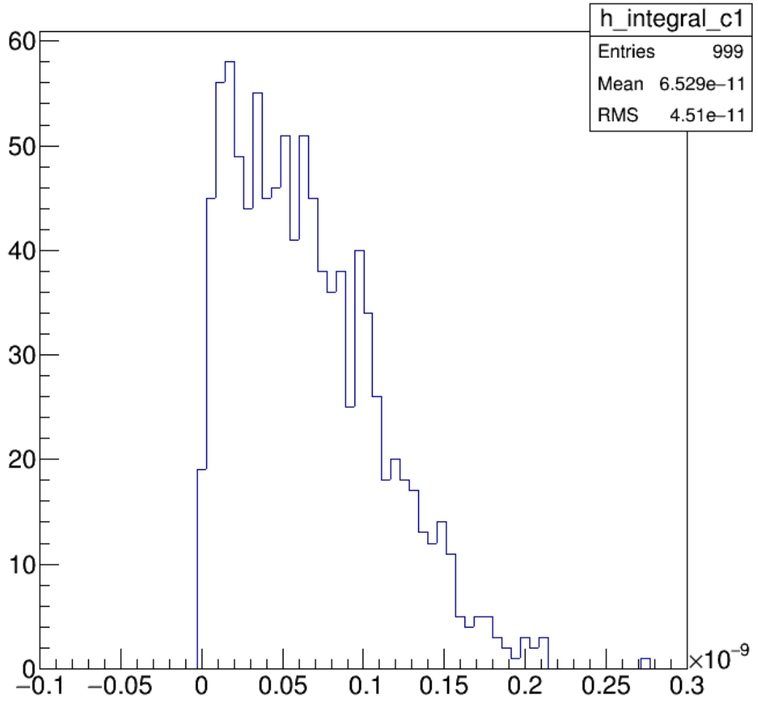


$\Delta t = t_{LGAD} - t_{3D}$



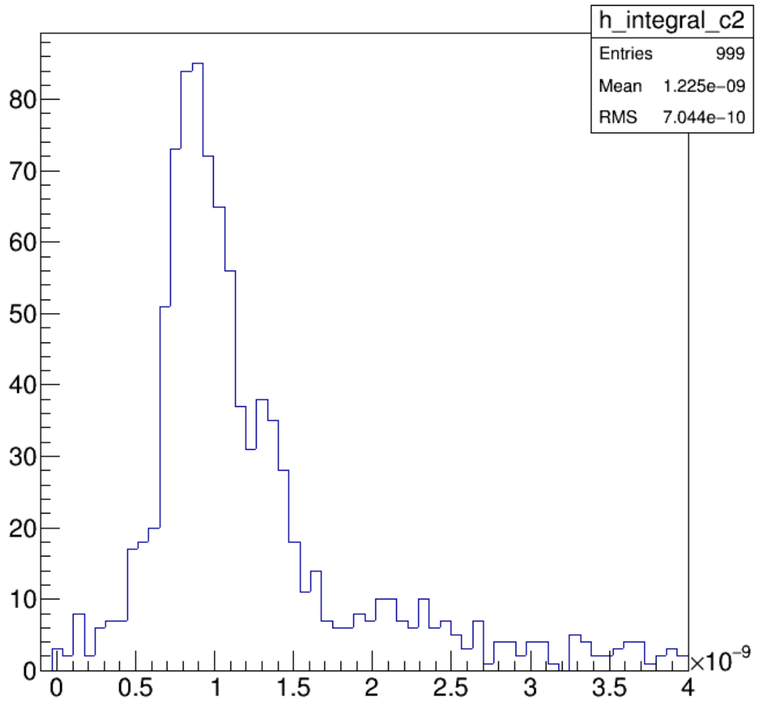
Thickness: 235 μm T:+20°C Vbias:50V Radiation dose: non-irr

3D



int

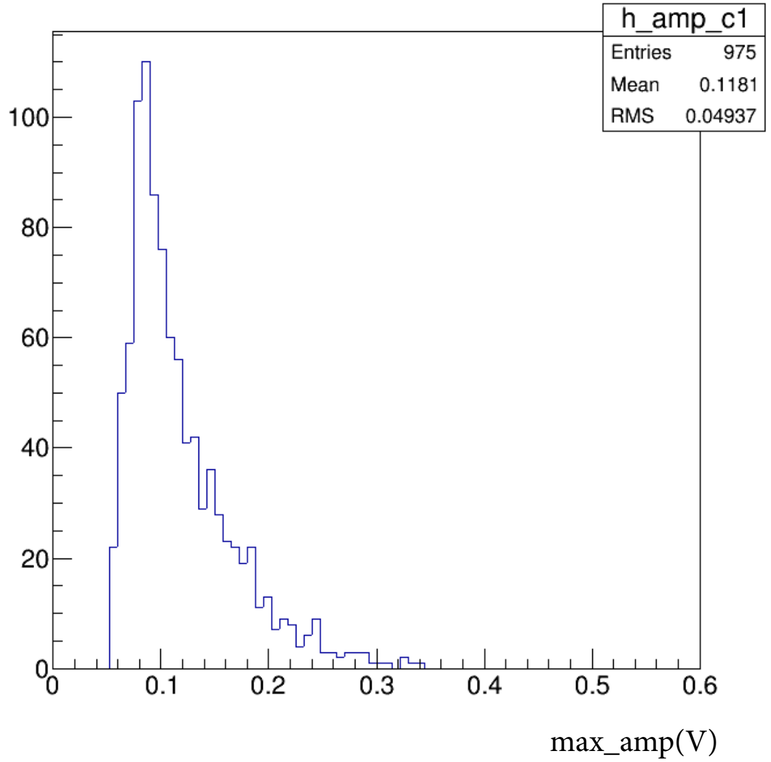
LGAD



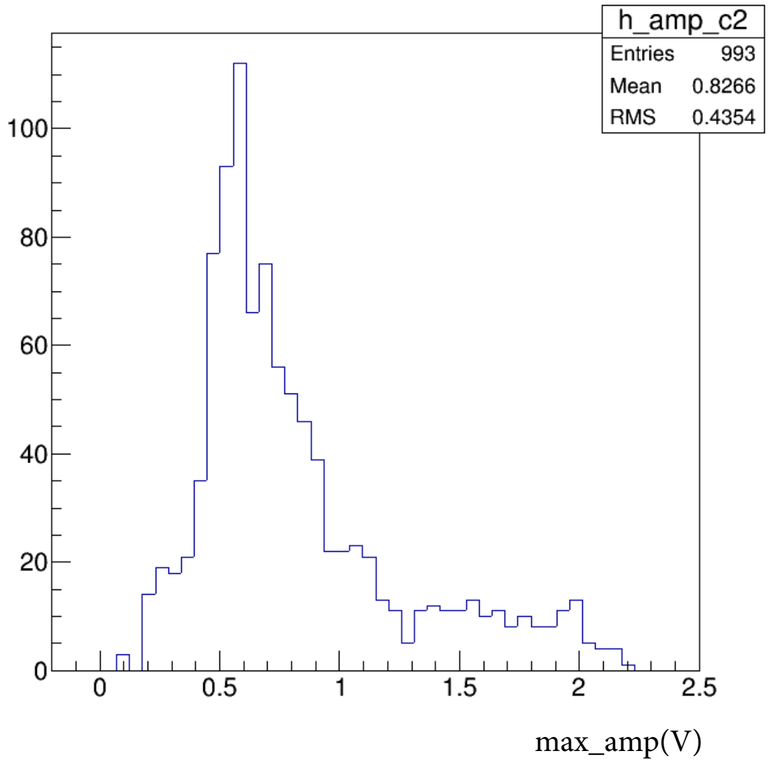
int

Thickness: 235 μm T:+20°C Vbias:100V Radiation dose: non-irr

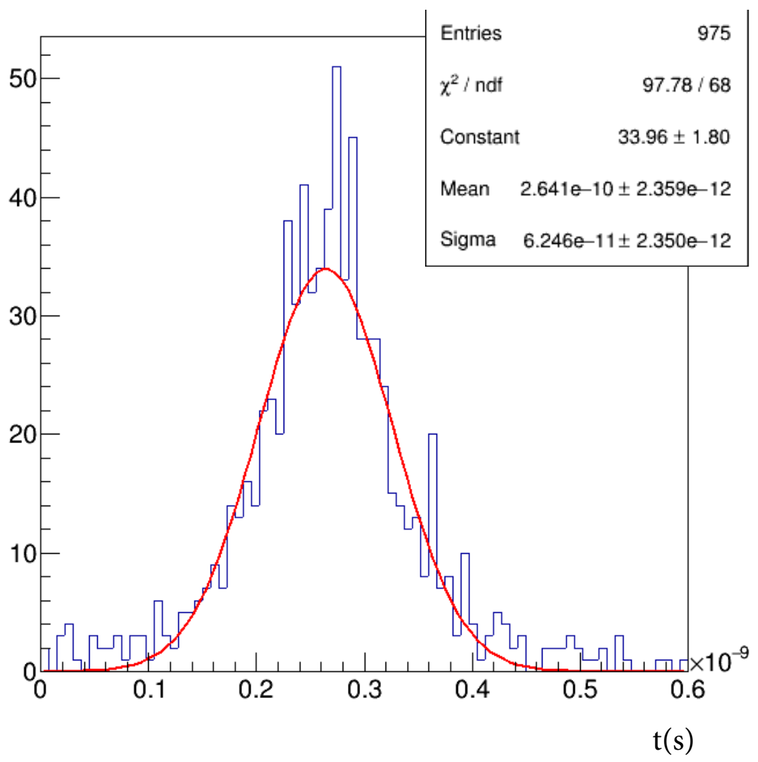
3D



LGAD

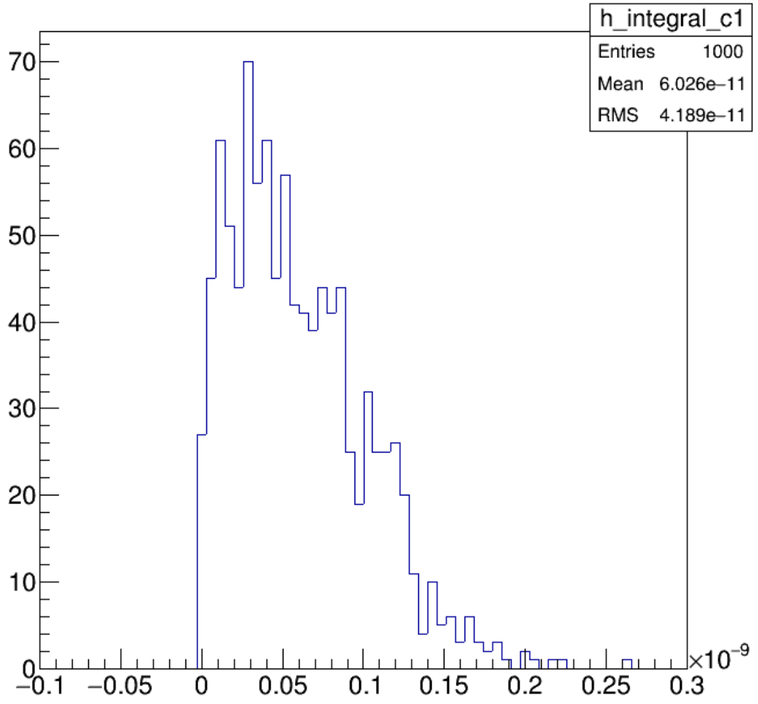


$\Delta t = t_{LGAD} - t_{3D}$



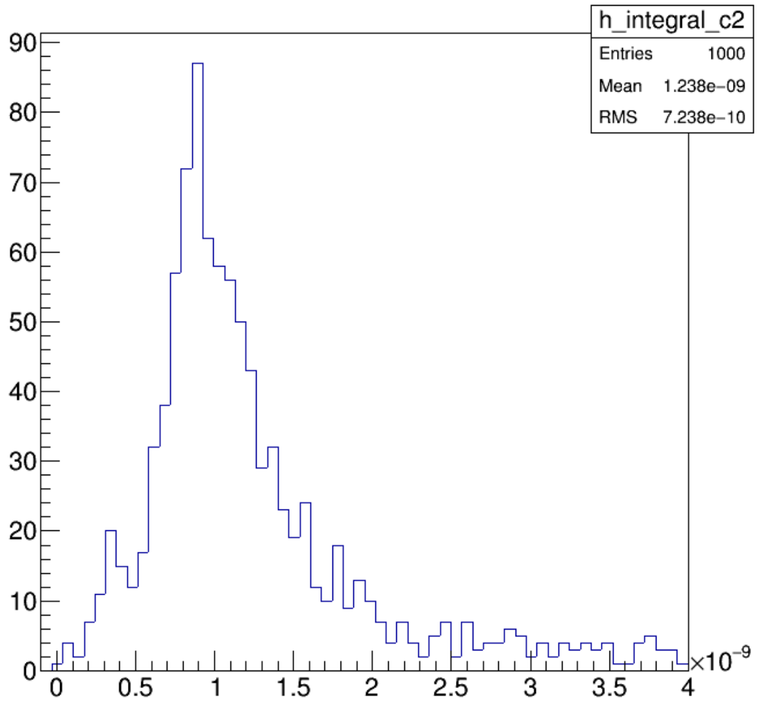
Thickness: 235 μm T:+20°C Vbias:100V Radiation dose: non-irr

3D



int

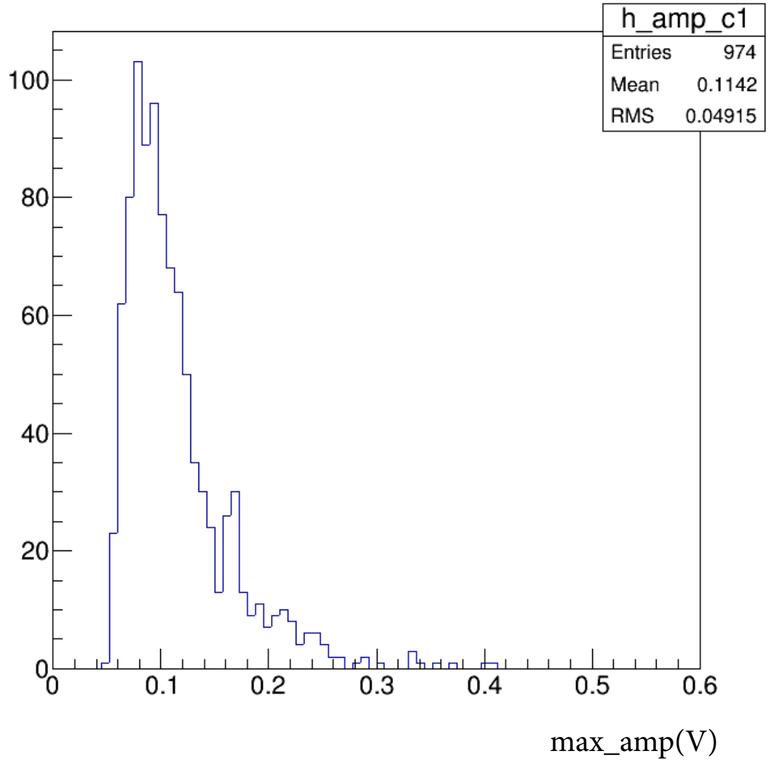
LGAD



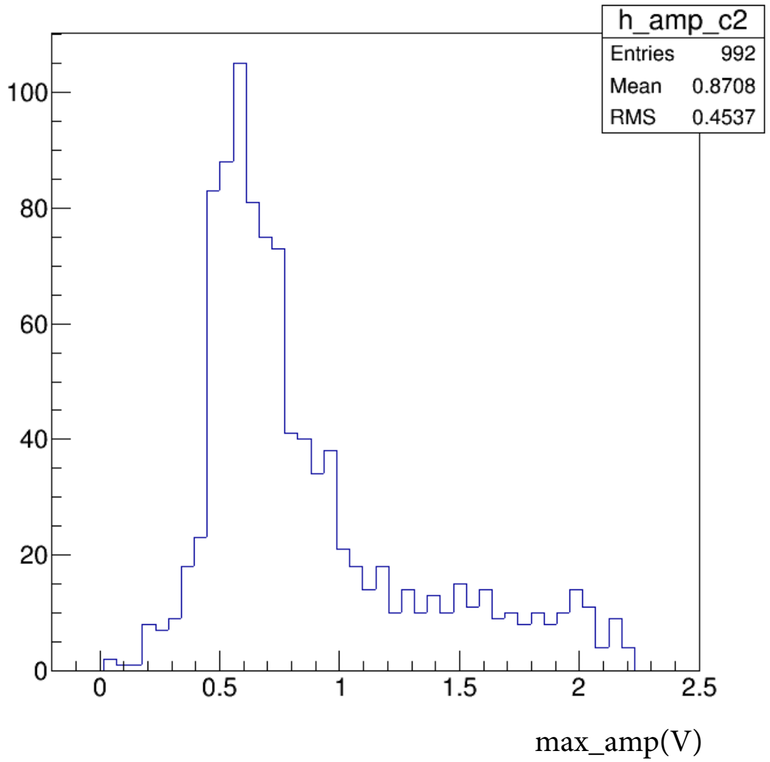
int

Thickness: 235 μm T:+20°C Vbias:150V Radiation dose: non-irr

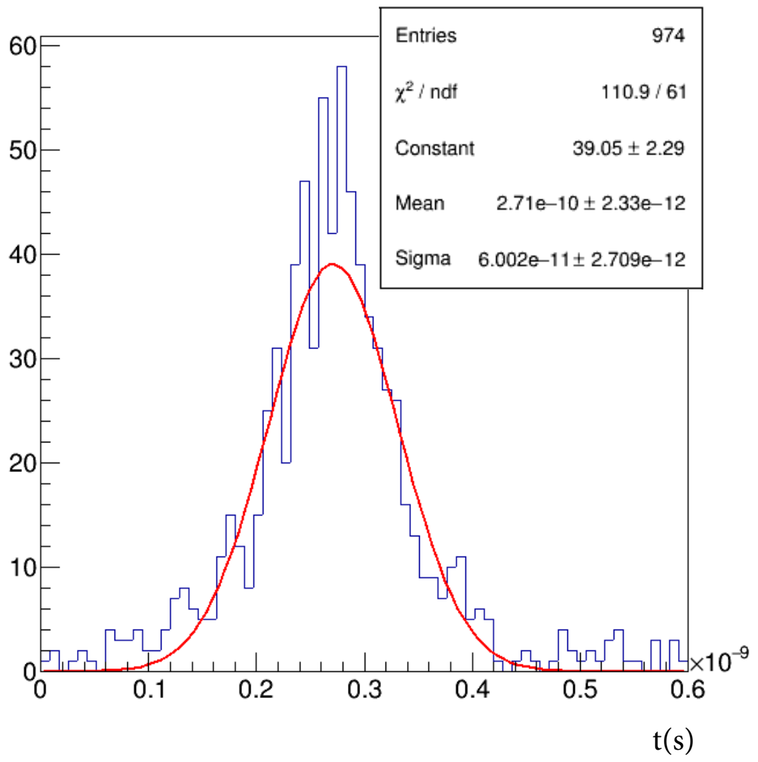
3D



LGAD

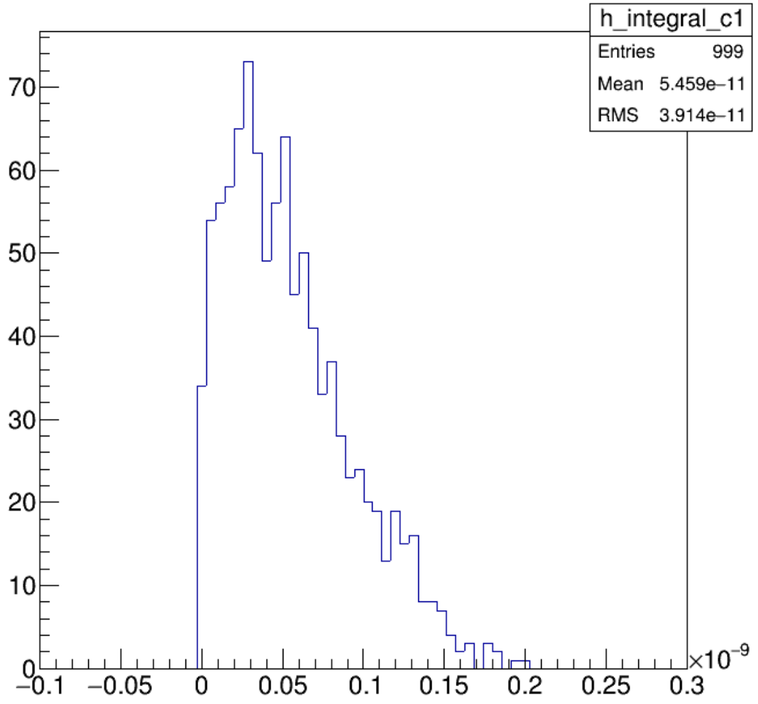


$\Delta t = t_{LGAD} - t_{3D}$



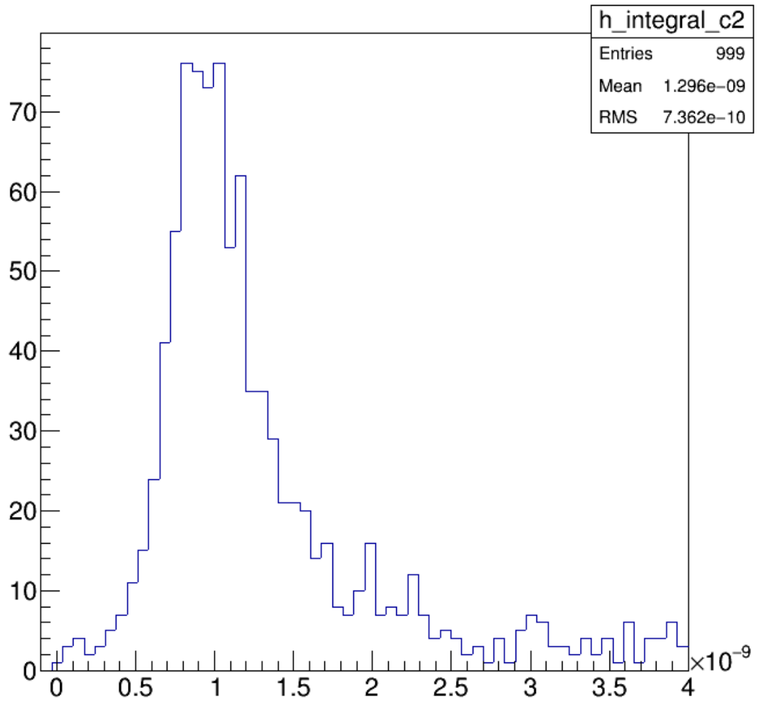
Thickness: 235 μm T:+20°C Vbias:150V Radiation dose: non-irr

3D



int

LGAD

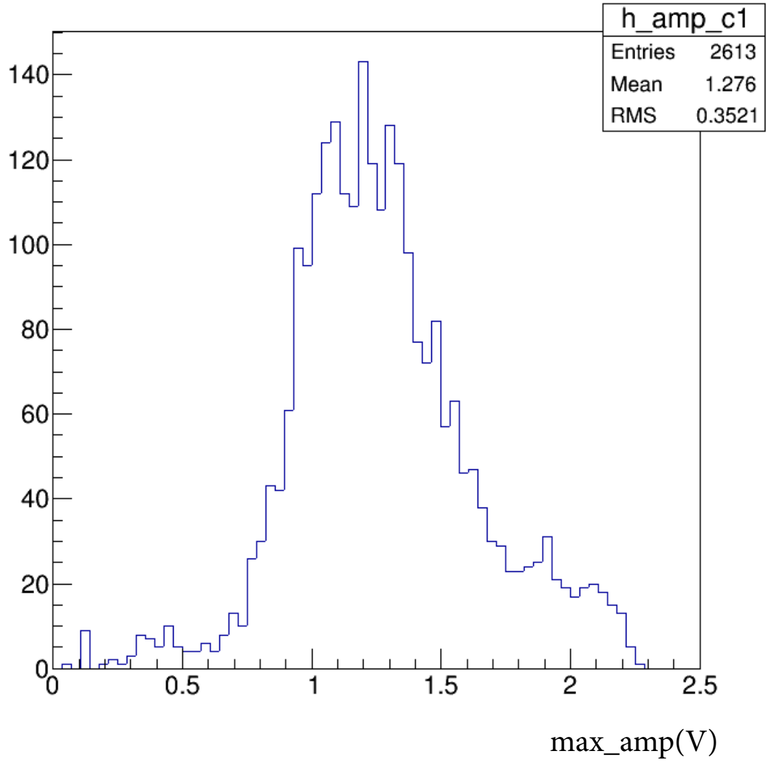


int

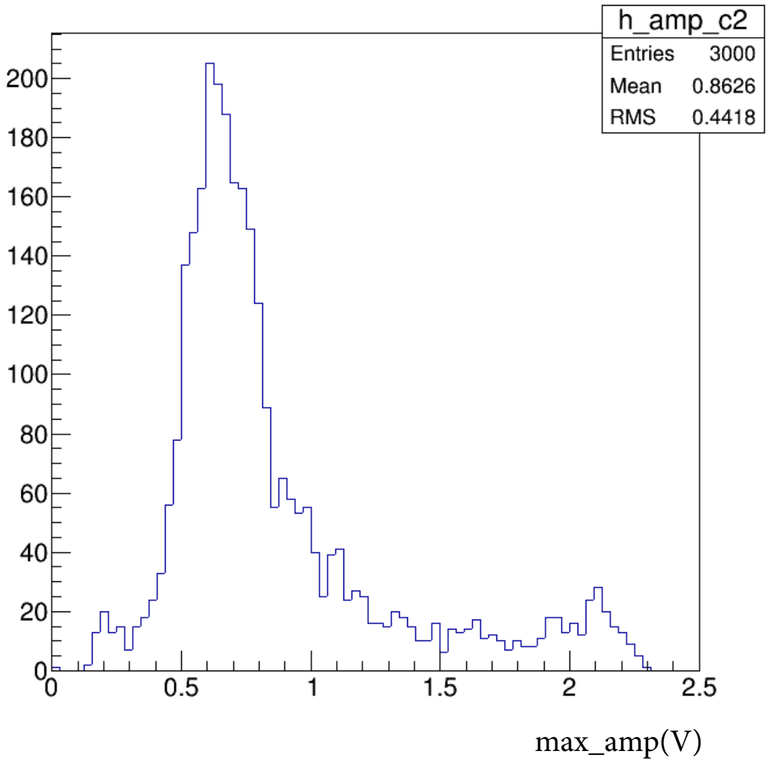
LGAD - LGAD Time resolution

T:-20°C Vbias:400V

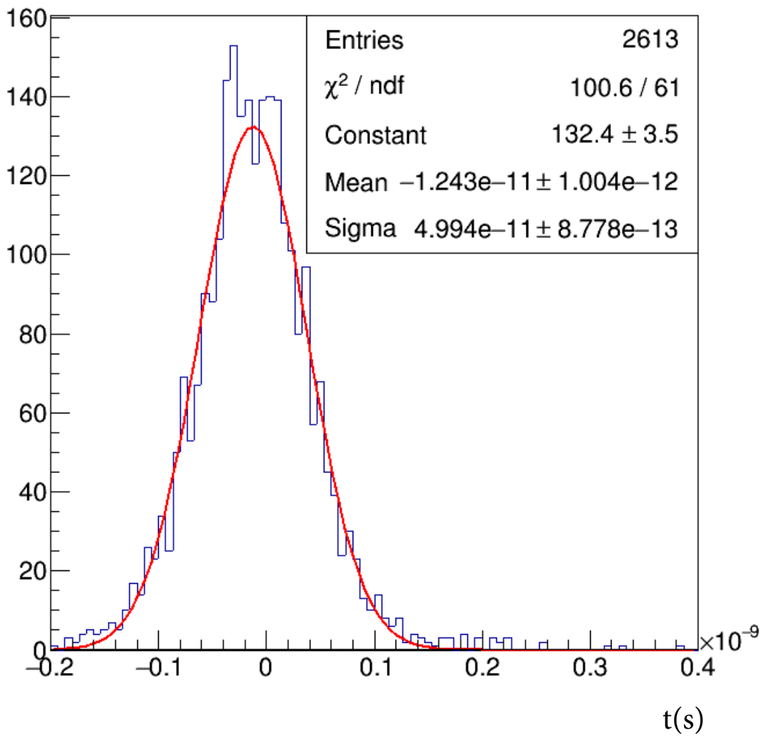
LGAD 1



LGAD 2

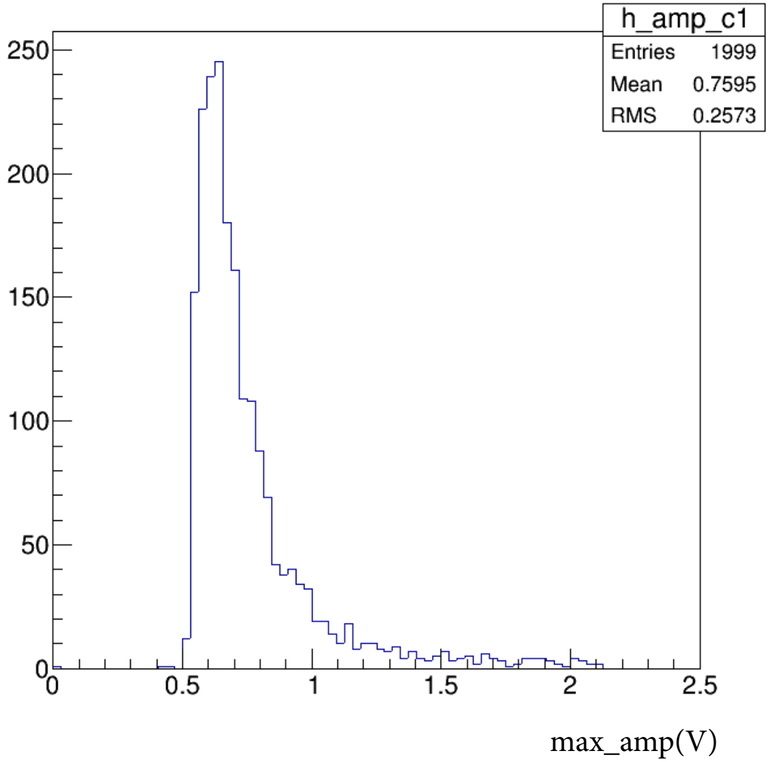


$\Delta t = t_{LGAD2} - t_{LGAD1}$

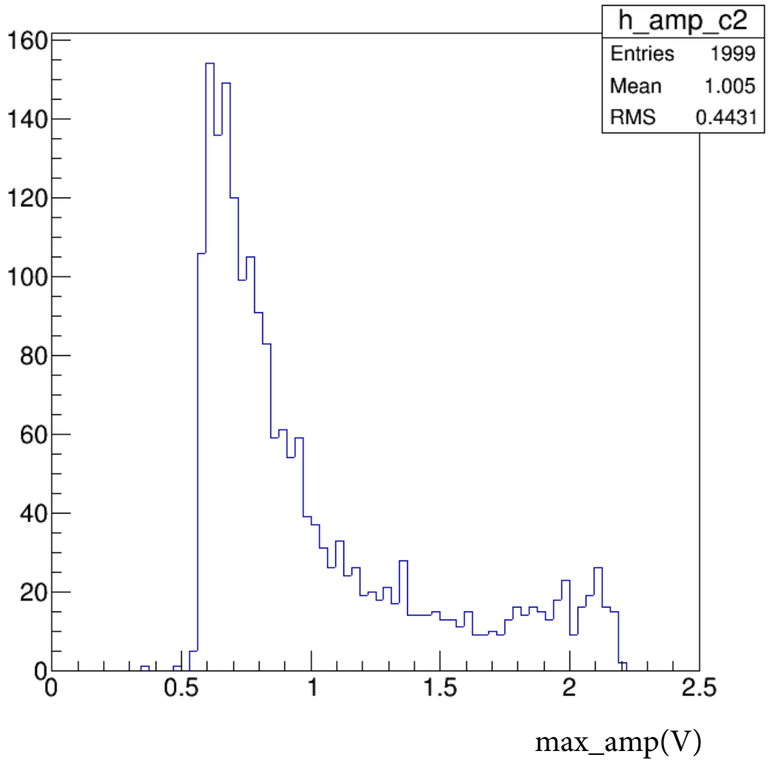
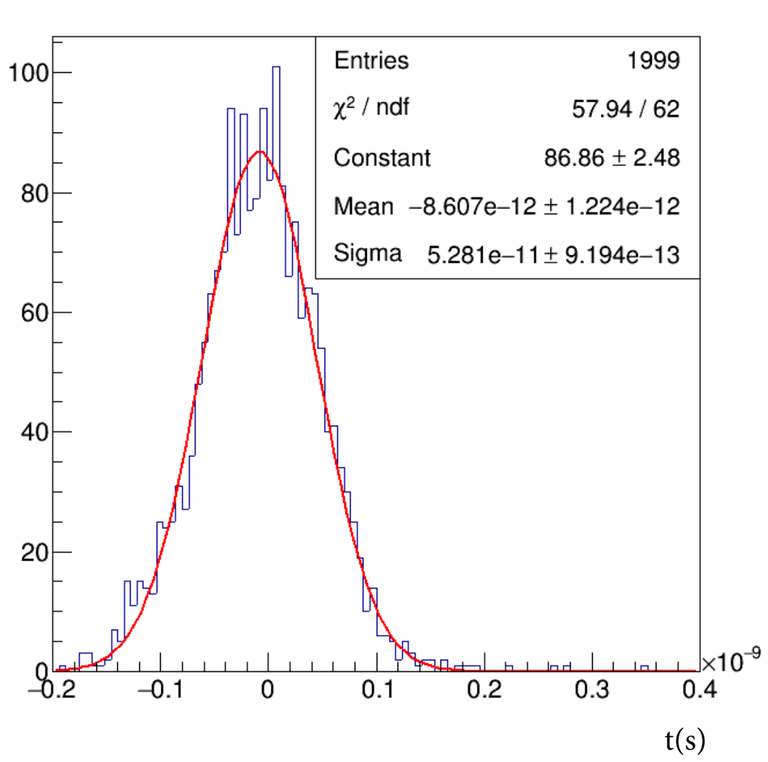


T:+20°C Vbias:400V

LGAD 1



LGAD 2



$\Delta t = t_{LGAD2} - t_{LGAD1}$