

# Status on SDT simulation

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# Status

- Matlab : download a trial version
  - trial version, can use without license for one month
  - <https://jp.mathworks.com/campaigns/products/trials.html>
  - Full set ? ( Matlab, Simulink, and many toolbox) ~20 GB
  - Fail several times for compilation ( = download) but finally it is fine
- LDT2.0 : try to run it , as a trial
  - by referring the user-guide

# from LDT2.0

Edit simulation parameters

ファイル(E) 編集(E) 表示(V) 挿入(I) ツール(T) デスクトップ(D) ウィンドウ(W) ヘルプ(H)

Mass of the particles [GeV] 0.106  
Number of events 10  
Number of tracks per event 100

Start parameter range

Momentum (min) [GeV] 1  
Momentum (max) [GeV] 100  
Polar angle theta (min) [deg] 5  
Polar angle theta (max) [deg] 90  
Azimuthal angle phi (min) [deg] 0  
Azimuthal angle phi (max) [deg] 360

Flags

Simulation

- Symmetry in theta
- Use absolute momentum
- Scale down TPC by factor 5
- Multiple scattering
- Measurement errors

Reconstruction

- Display bad tracks
- Chi2

OK

LDT\_Matlab

Detector geometry

Barrel geometry  
Select barrel geometry  
geom/SID\_bgeom

Forward geometry  
Select forward geometry  
geom/SID\_fggeom

2D detector display 3D detector display

Simulation

Set parameters Interrupt  
Run simulation

Outputs

- View log file
- Pulls histograms
- Residuals histograms
- Impacts histograms
- Curves
- RAVE file
- JAS3 file

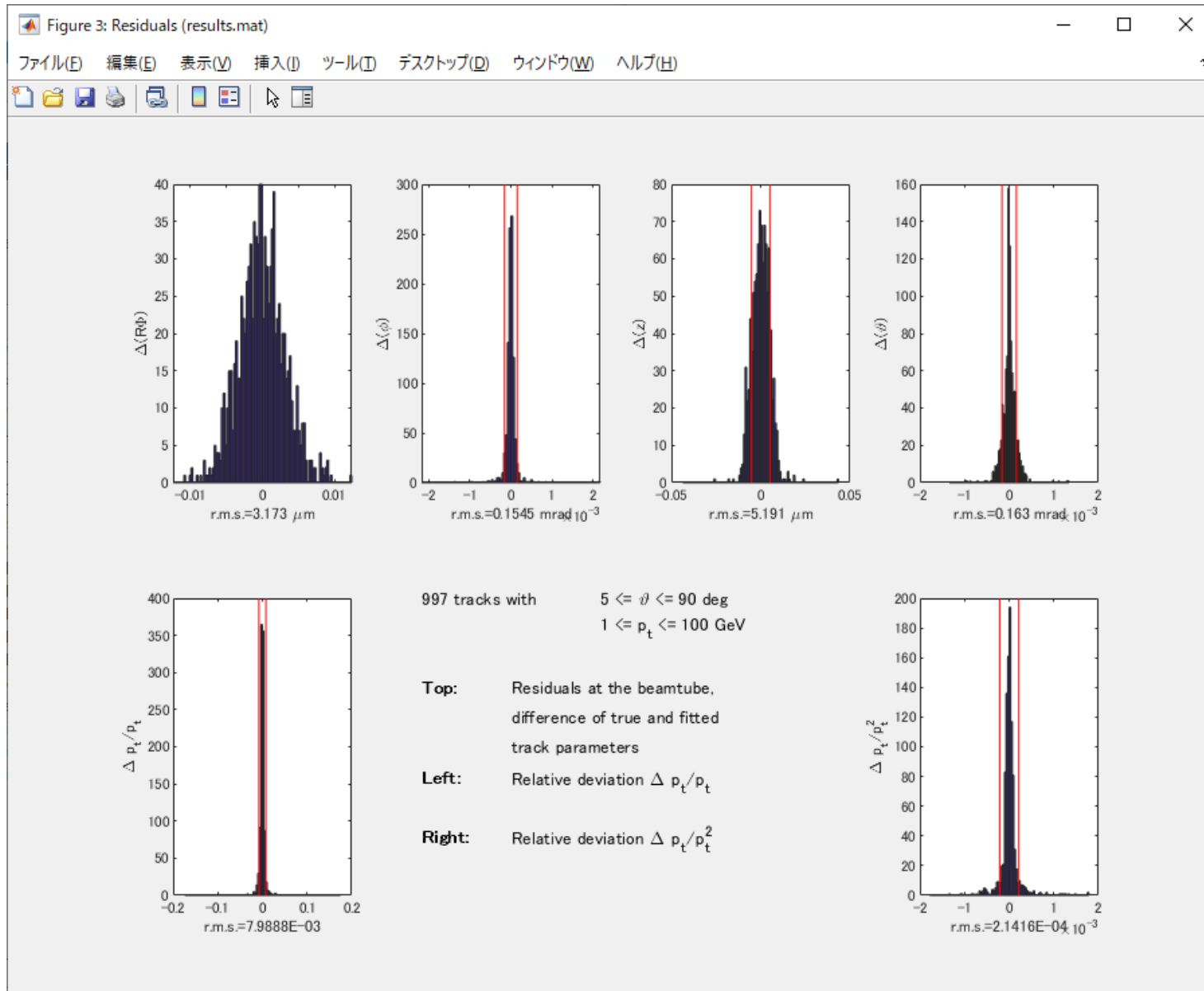
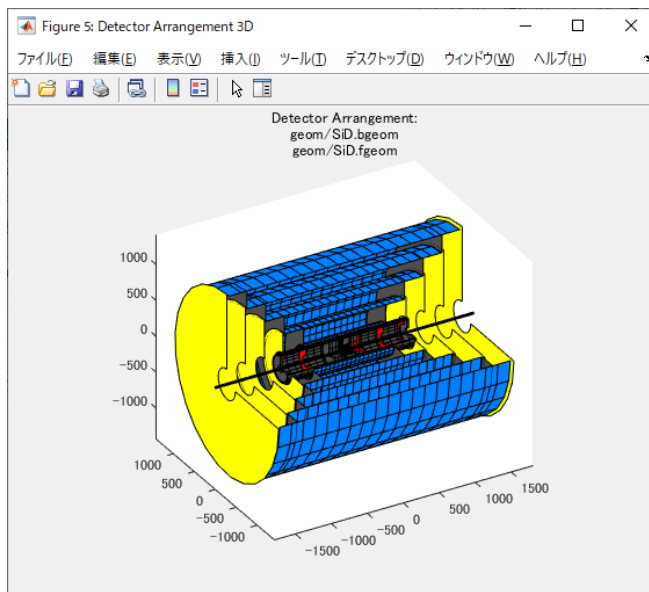
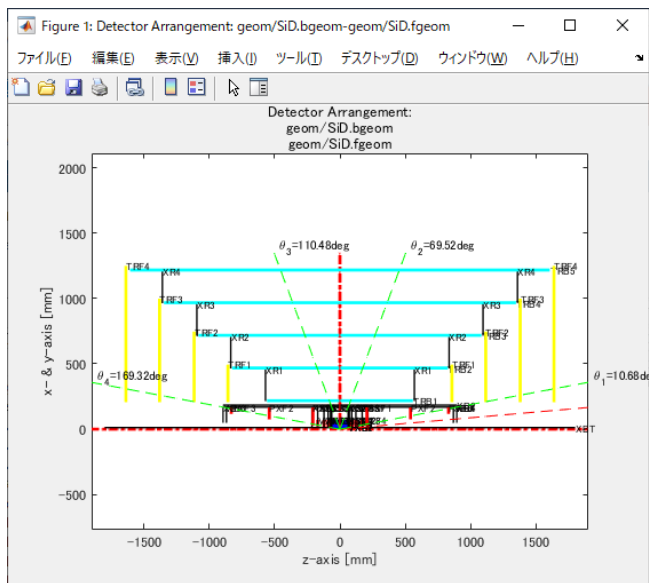
Messages

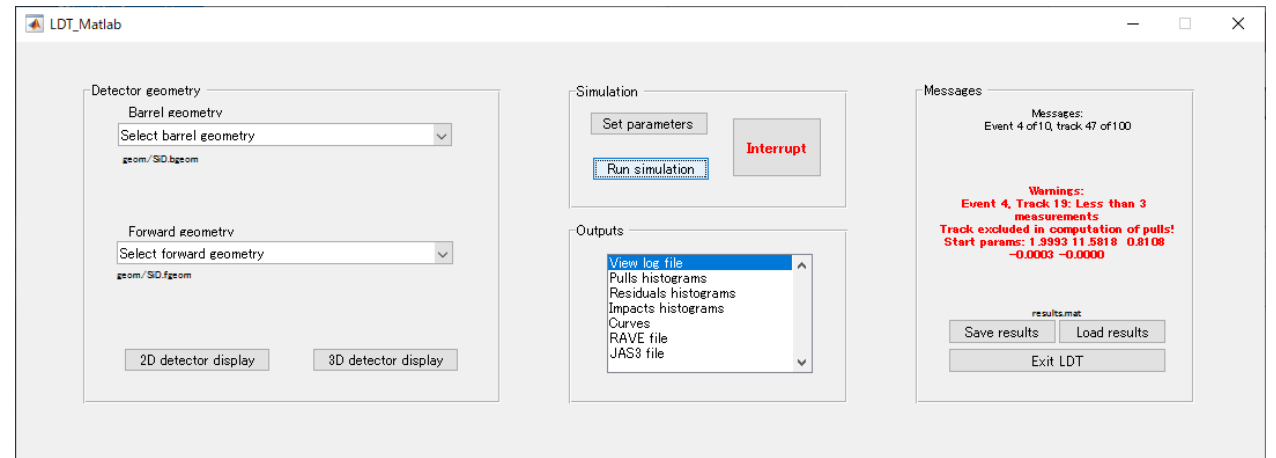
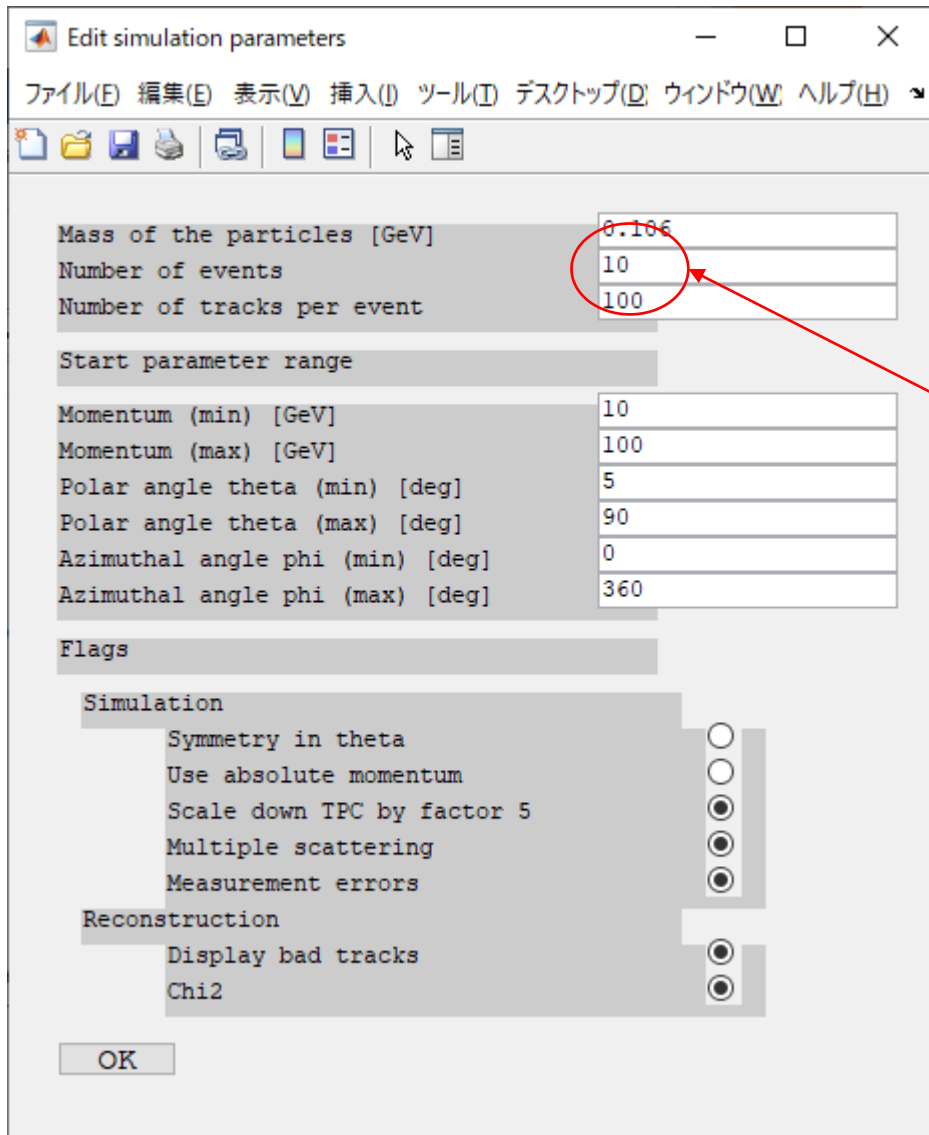
Messages:  
No messages

Warnings:  
No warnings

results.mat

Save results Load results  
Exit LDT





左辺と右辺の要素数が異なるため、代入を実行できません。

エラー: LDT\_run (line 526)  
`pulldet(lTrack)=min(find(meas>0));`

エラー: LDT\_Matlab>run\_Callback (line 475)  
`LDT_run(nameb,namef,messagehandle,warninghandle);`

エラー: gui\_mainfcn (line 95)  
`feval(varargin{:});`

エラー: LDT\_Matlab (line 65)  
`gui_mainfcn(gui_State, varargin{:});`

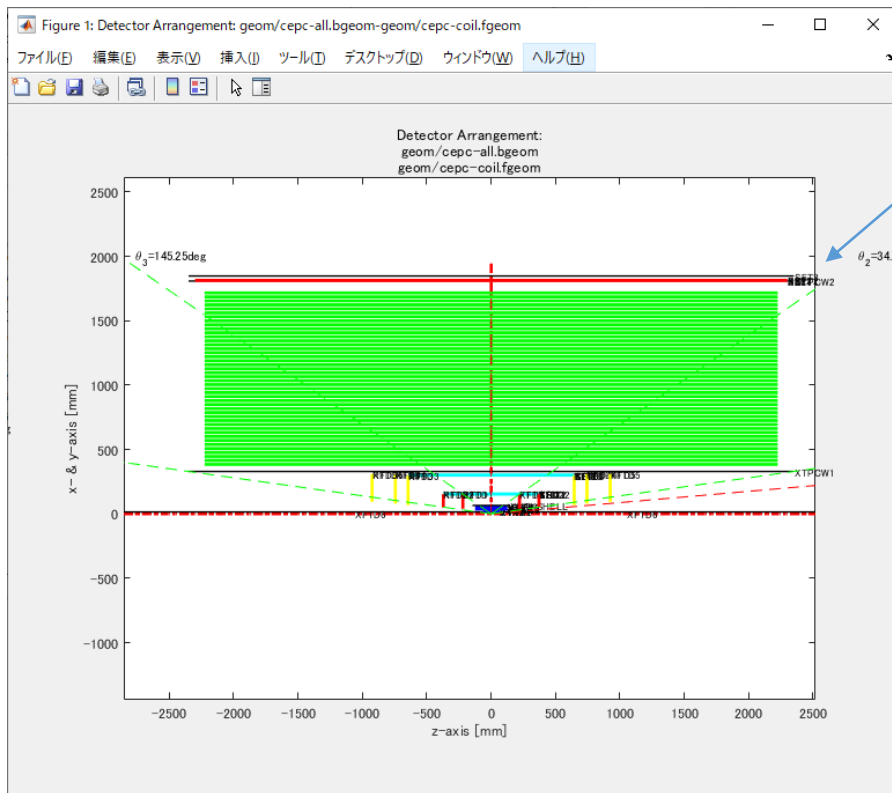
UIControl Callback の実行中にエラーが発生しました。

Execution is stopped due to error  
 ( ... the message is in Japanese,  
 need to fine English version)

# Next step

- Change the geometry file

this one ?



._cepc-all.bgeom	2019/01/16 18:17	BGEOM ファ
beamtube-only.bgeom	2008/04/18 12:24	BGEOM ファ
cepc-all.bgeom	2019/01/16 18:17	BGEOM ファ
empty.bgeom	2008/04/16 16:00	BGEOM ファ
LDC.bgeom	2008/03/28 16:10	BGEOM ファ
LDCPrime-02Sc-11.04.08.bgeom	2008/05/16 9:59	BGEOM ファ
LDCPrime-02Sc-30.04.08.bgeom	2008/05/27 14:51	BGEOM ファ
LDCPrime-02Sc-30.04.08-toberefined.bge...	2008/06/02 10:56	BGEOM ファ
SiD.bgeom	2008/03/12 18:30	BGEOM ファ