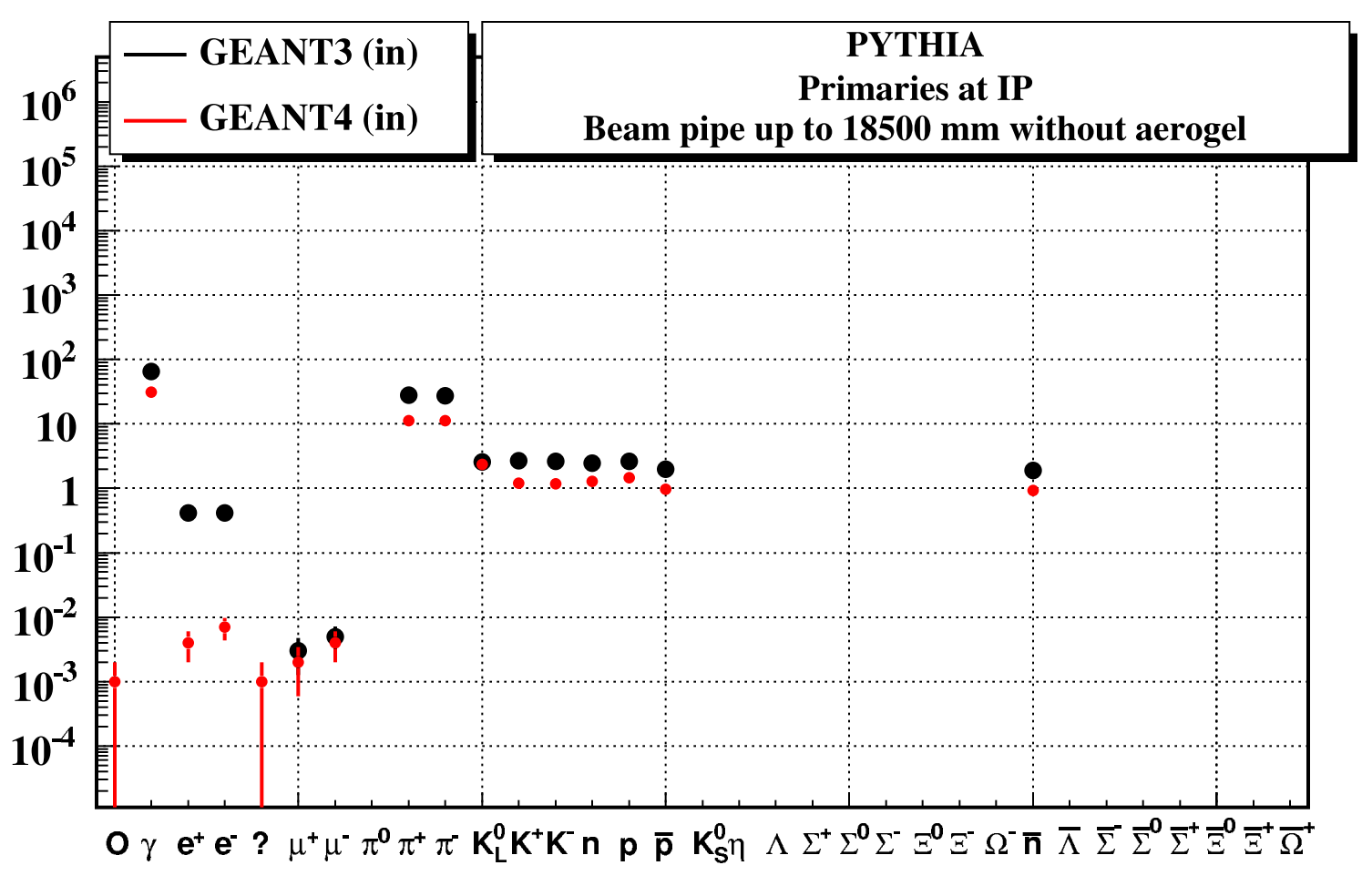
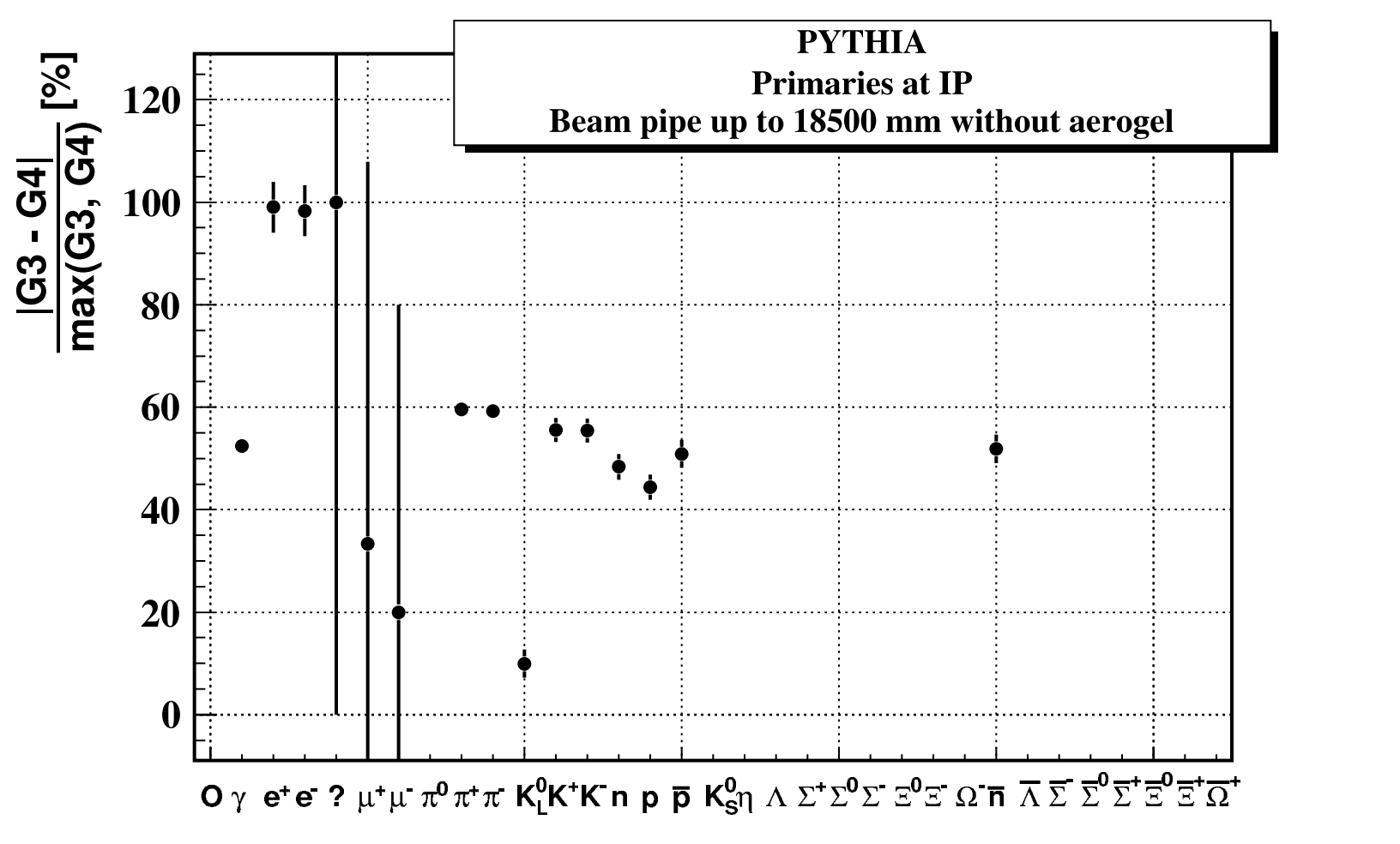
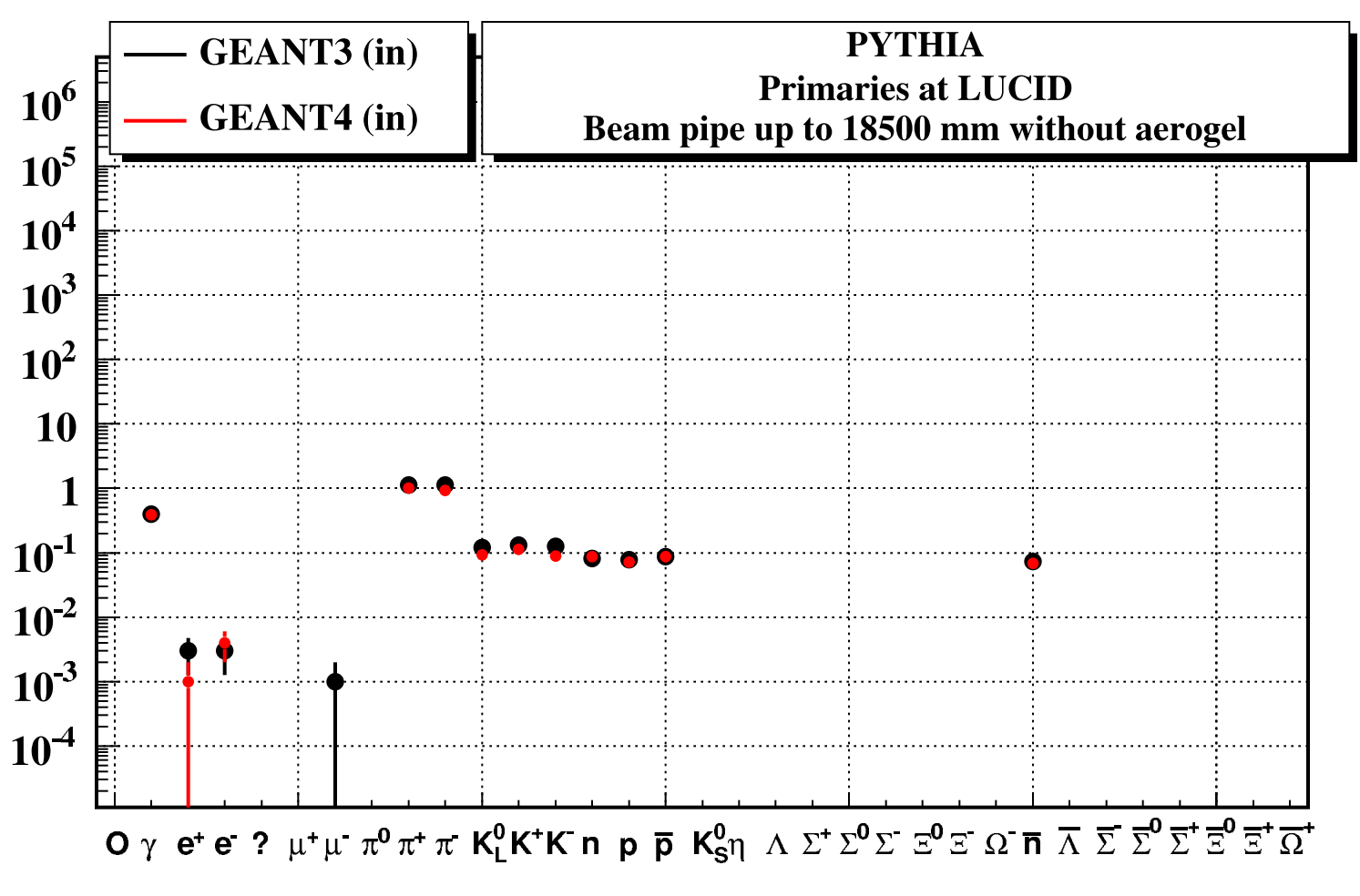
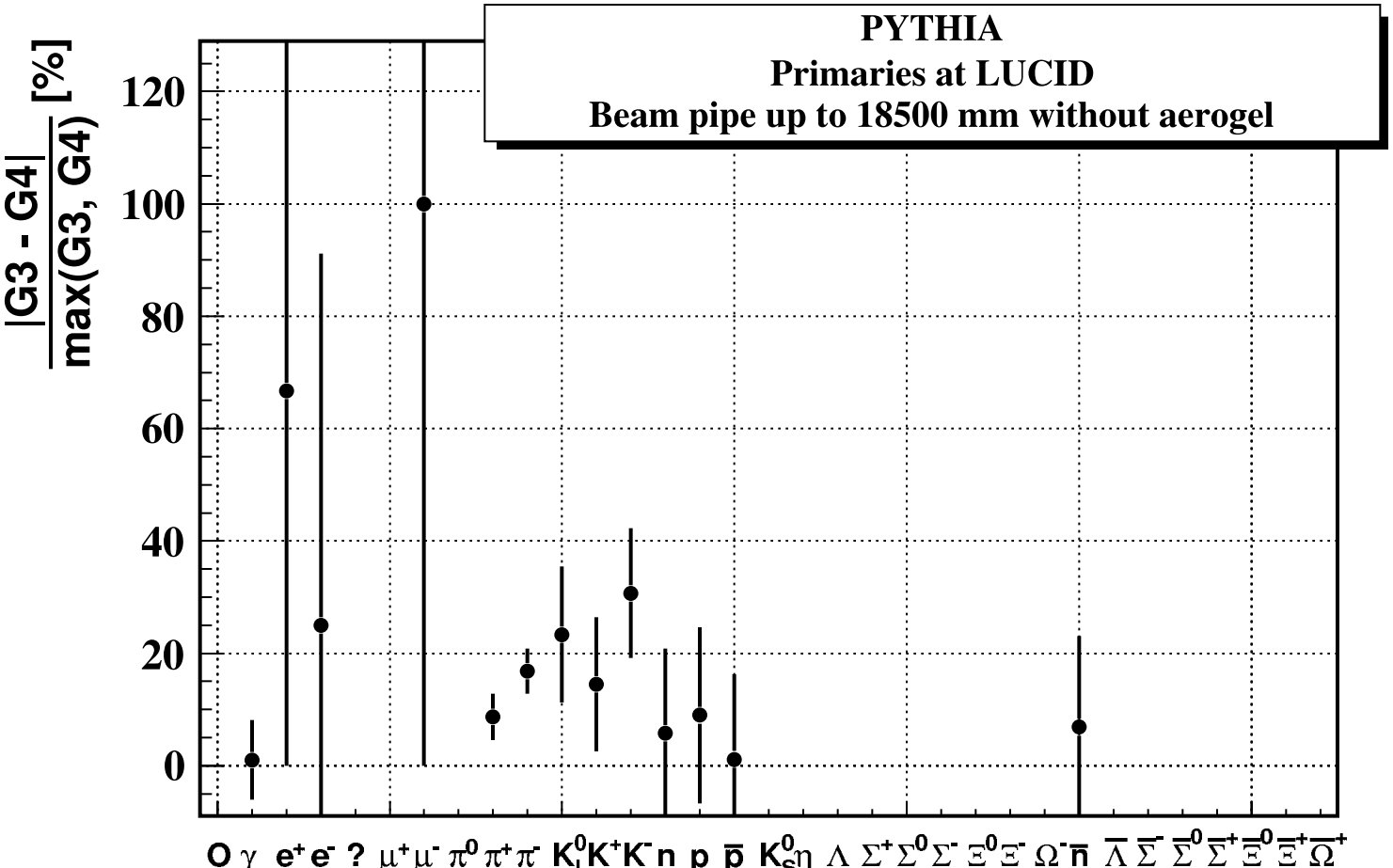
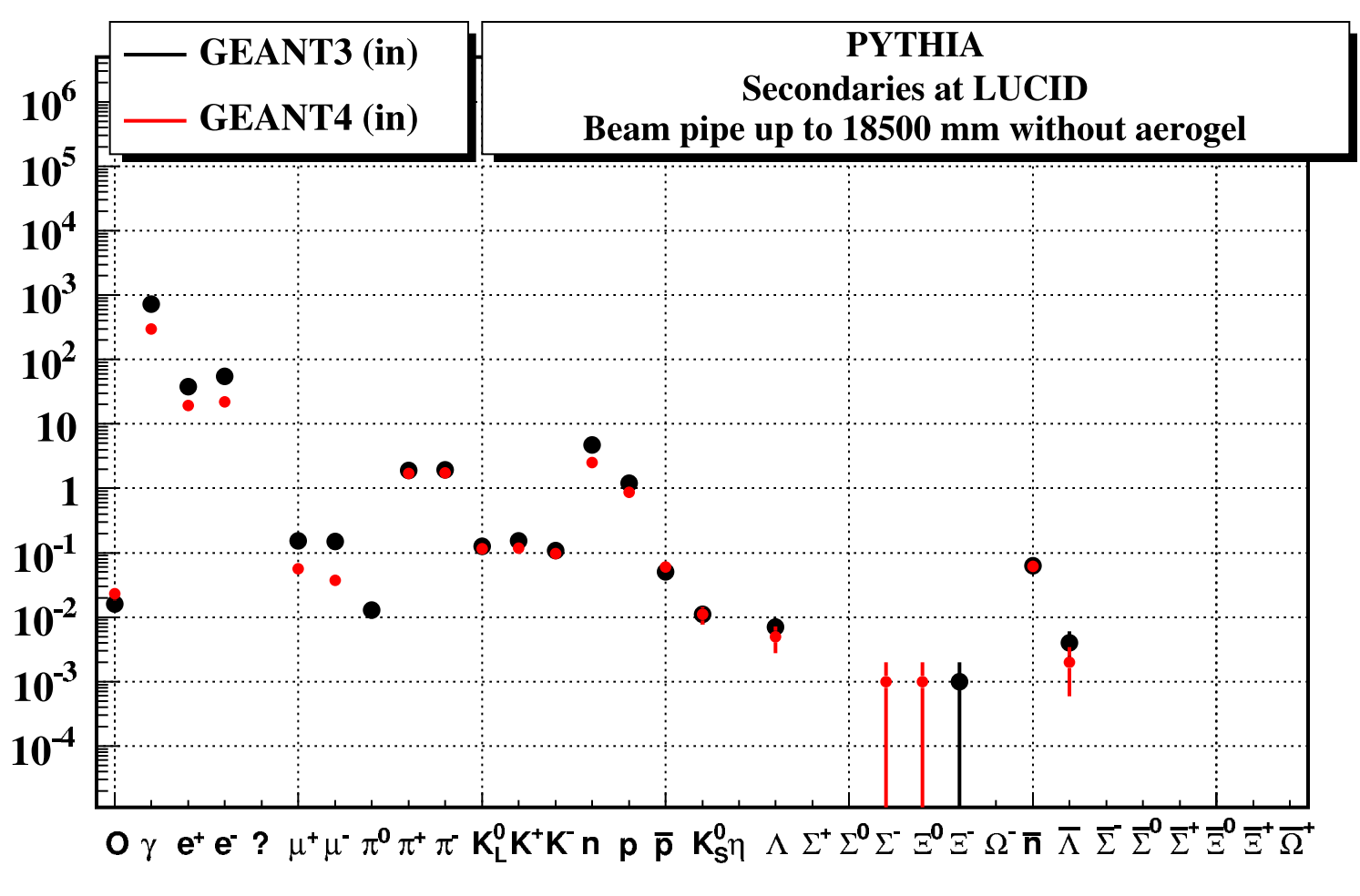
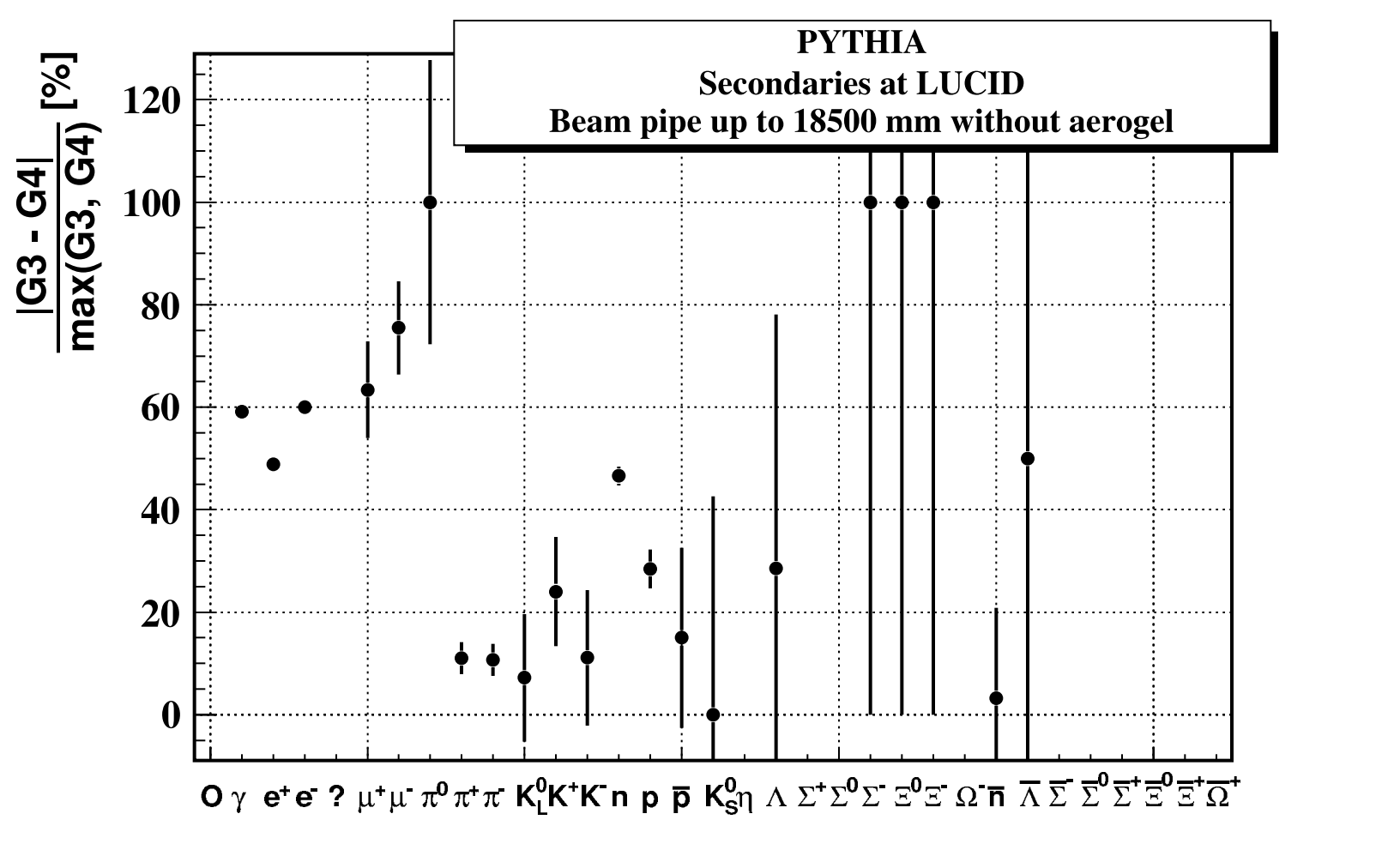

GEANT3 (in)
GEANT4 (in)
PYTHIA
Primaries at IP
Beam pipe up to 18500 mm without aerogel
10^6
10^5
10^4
10^3
10^2
10
1
10^{-1}
10^{-2}
10^{-3}
10^{-4}
O γ e+ e- ? μ+ μ- π0 π+ π- K^0_L K+ K- n p $\bar{p}$ K^0_S η Λ Σ+ Σ0 Σ- Ξ0 Ξ- Ω- $\bar{n}$ $\bar{\Lambda}$ $\bar{\Sigma}$- $\bar{\Sigma}$0 $\bar{\Sigma}$+ $\bar{\Xi}$0 $\bar{\Xi}$+ $\bar{\Omega}$+

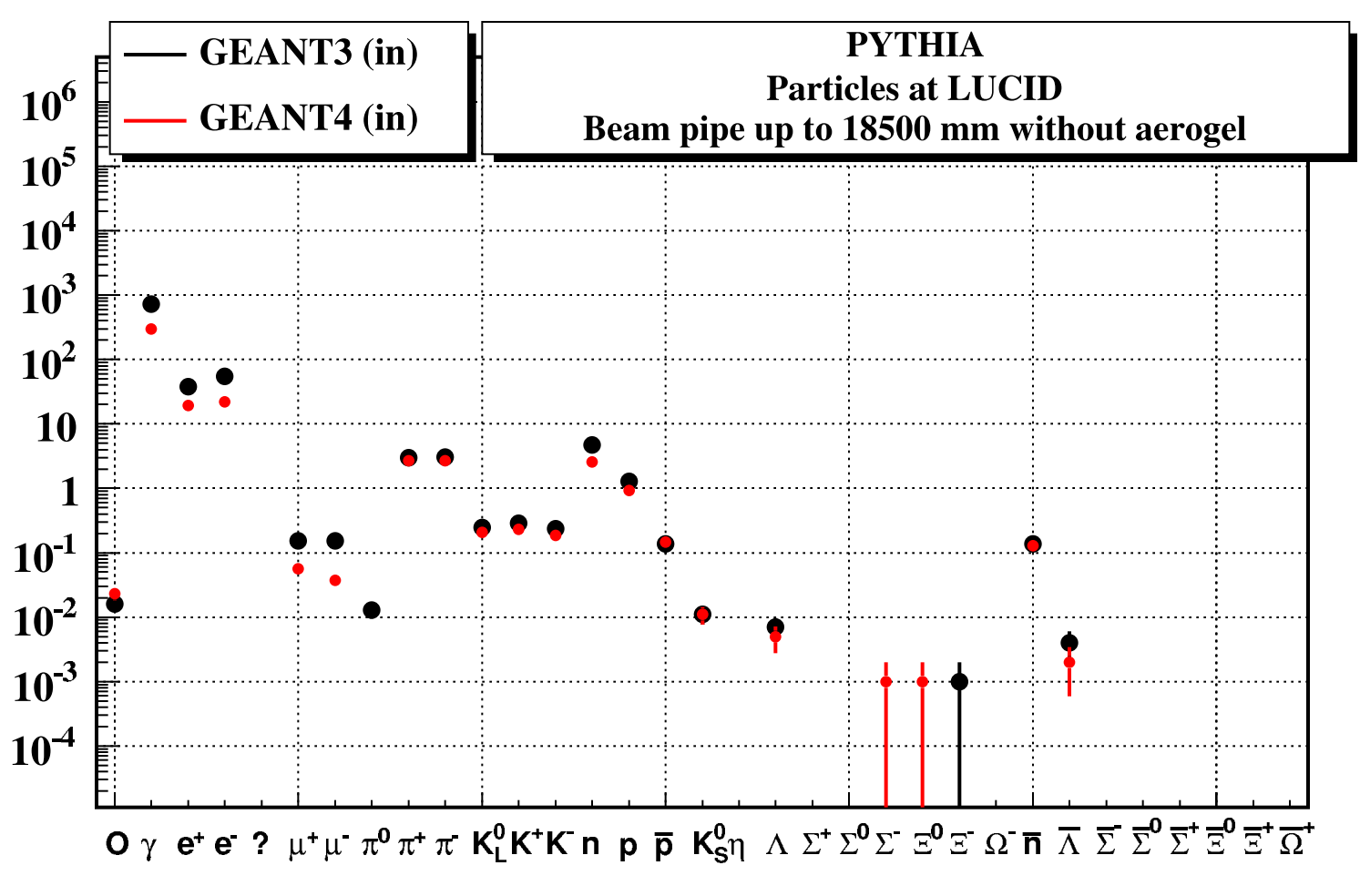

PYTHIA
Primaries at IP
Beam pipe up to 18500 mm without aerogel
|G3 - G4| / max(G3, G4) [%]
120
100
80
60
40
20
0
O γ e+e- ? μ+μ- π0 π+π- K0LK+K- n p p̄ K0Sη Λ Σ+Σ0Σ- Ξ0Ξ- Ω-n̄ Λ̄ Σ̄- Σ̄0Σ̄+ Ξ̄0Ξ̄+ Ω̄+

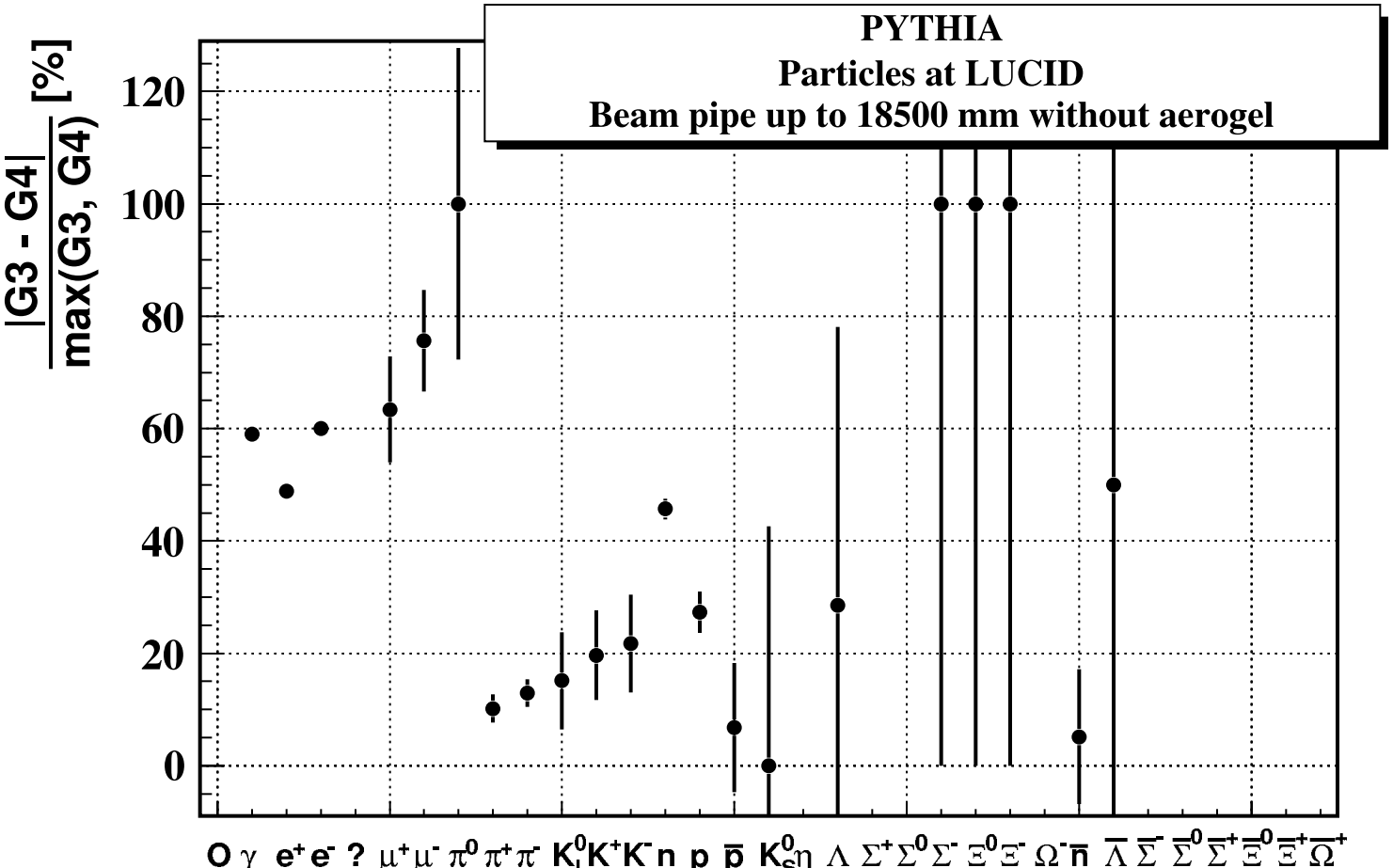

GEANT3 (in)
GEANT4 (in)
PYTHIA
Primaries at LUCID
Beam pipe up to 18500 mm without aerogel
10^6
10^5
10^4
10^3
10^2
10
1
10^{-1}
10^{-2}
10^{-3}
10^{-4}
O γ e+ e- ? μ+ μ- π0 π+ π- K^0_L K+ K- n p $\bar{p}$ K^0_S η Λ Σ+ Σ0 Σ- Ξ0 Ξ- Ω- $\bar{n}$ $\bar{\Lambda}$ $\bar{\Sigma}$- $\bar{\Sigma}$0 $\bar{\Sigma}$+ $\bar{\Xi}$0 $\bar{\Xi}$+ $\bar{\Omega}$+

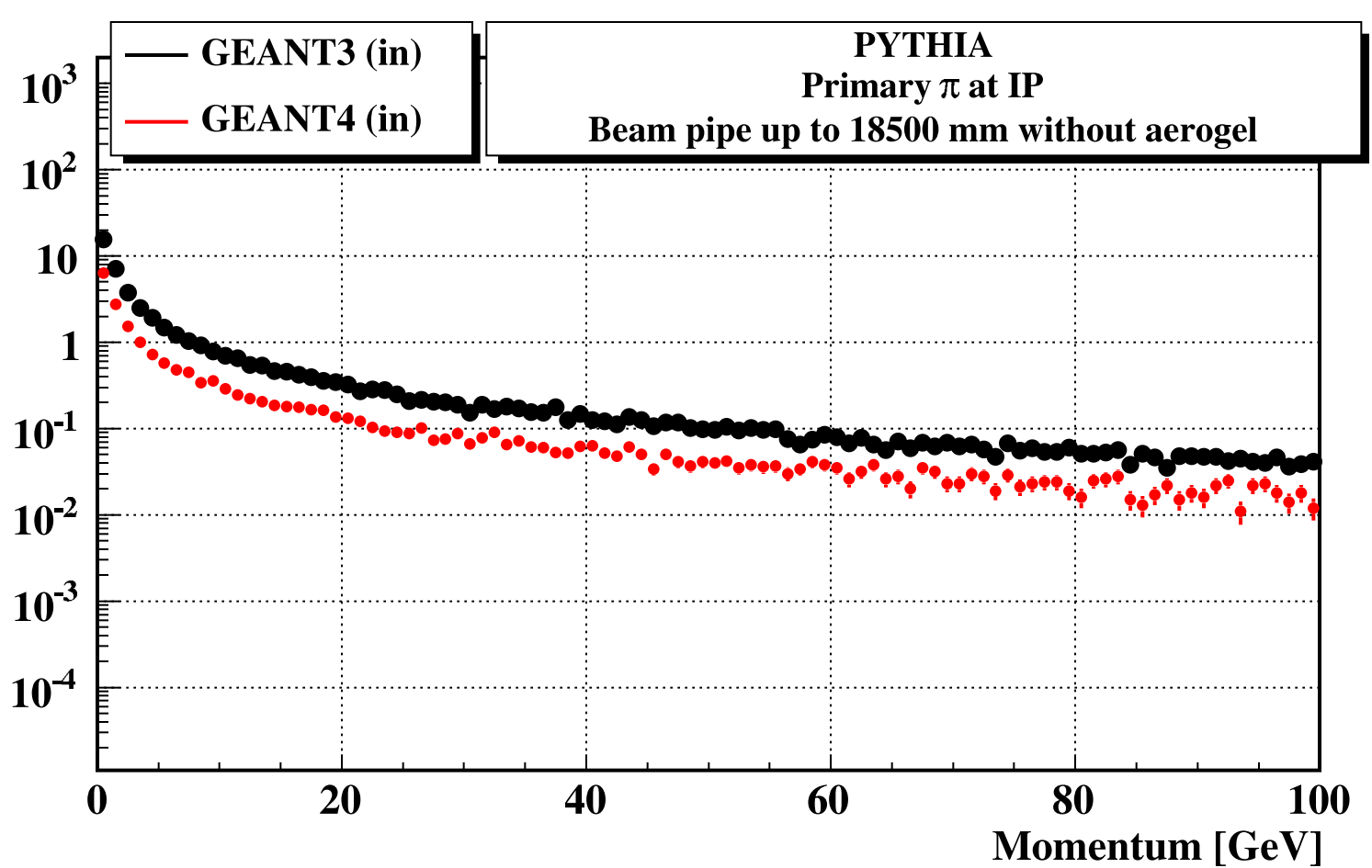

PYTHIA
Primaries at LUCID
Beam pipe up to 18500 mm without aerogel
|G3 - G4| / max(G3, G4) [%]
120
100
80
60
40
20
0
O γ e+e- ? μ+μ- π0 π+π- K0LK+K- n p p̄ K0Sη Λ Σ+Σ0Σ- Ξ0Ξ- Ω-n̄ Λ̄ Σ̄- Σ̄0Σ̄+ Ξ̄0Ξ̄+ Ω̄+

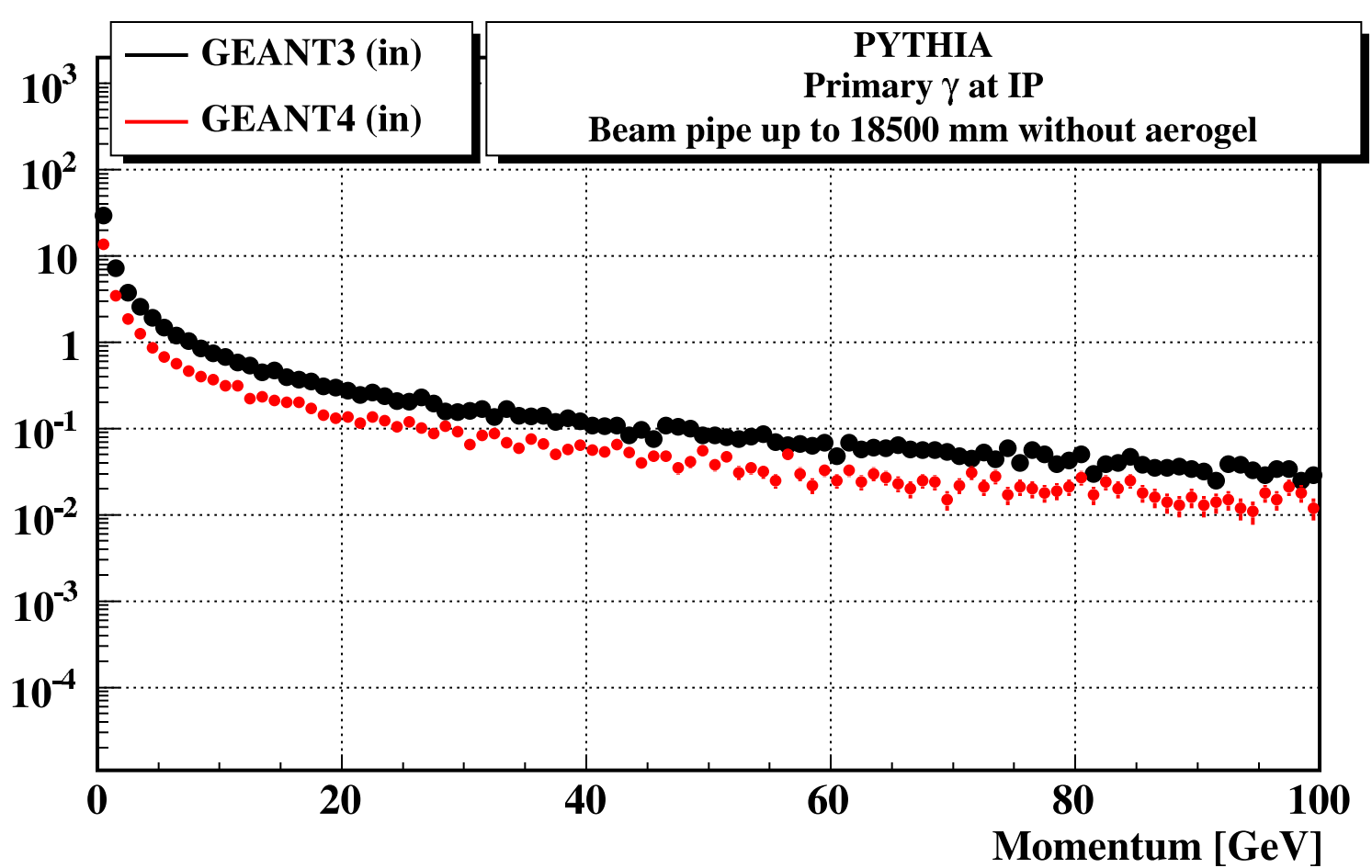

GEANT3 (in)
GEANT4 (in)
PYTHIA
Secondaries at LUCID
Beam pipe up to 18500 mm without aerogel
10^6
10^5
10^4
10^3
10^2
10
1
10^{-1}
10^{-2}
10^{-3}
10^{-4}
O γ e^+ e^- ? μ^+ μ^- π^0 π^+ π^- K_L^0 K^+ K^- n p $\bar{p}$ K_S^0 η Λ Σ^+ Σ^0 Σ^- Ξ^0 Ξ^- Ω^- $\bar{n}$ $\bar{\Lambda}$ $\bar{\Sigma}^-$ $\bar{\Sigma}^0$ $\bar{\Sigma}^+$ $\bar{\Xi}^0$ $\bar{\Xi}^+$ $\bar{\Omega}^+$

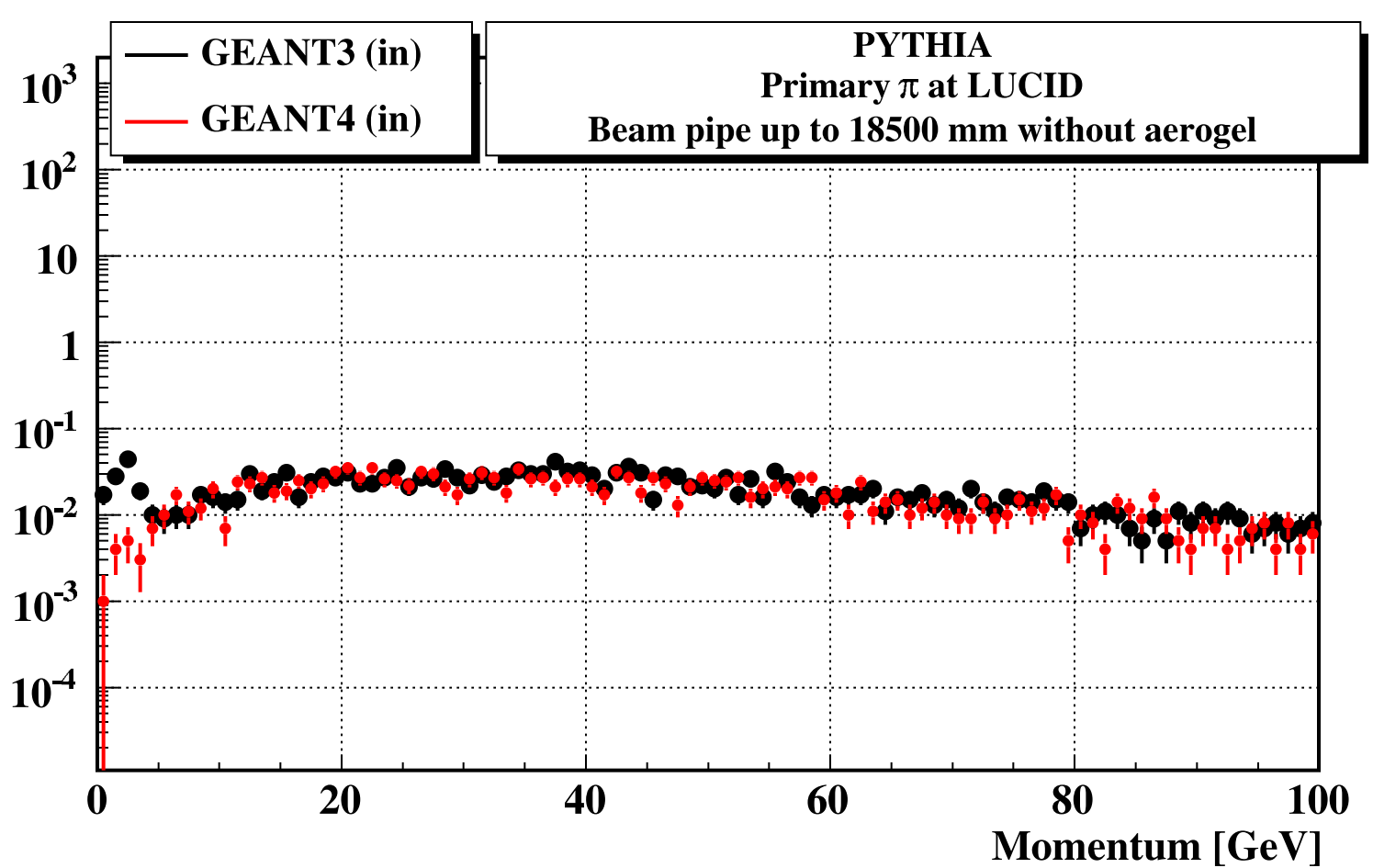

PYTHIA
Secondaries at LUCID
Beam pipe up to 18500 mm without aerogel
|G3 - G4| / max(G3, G4) [%]
120
100
80
60
40
20
0
O γ e+e- ? μ+μ- π0 π+π- K0LK+K- n p p̄ K0Sη Λ Σ+Σ0Σ- Ξ0Ξ- Ω-n̄ Λ̄ Σ̄- Σ̄0Σ̄+ Ξ̄0Ξ̄+ Ω̄+

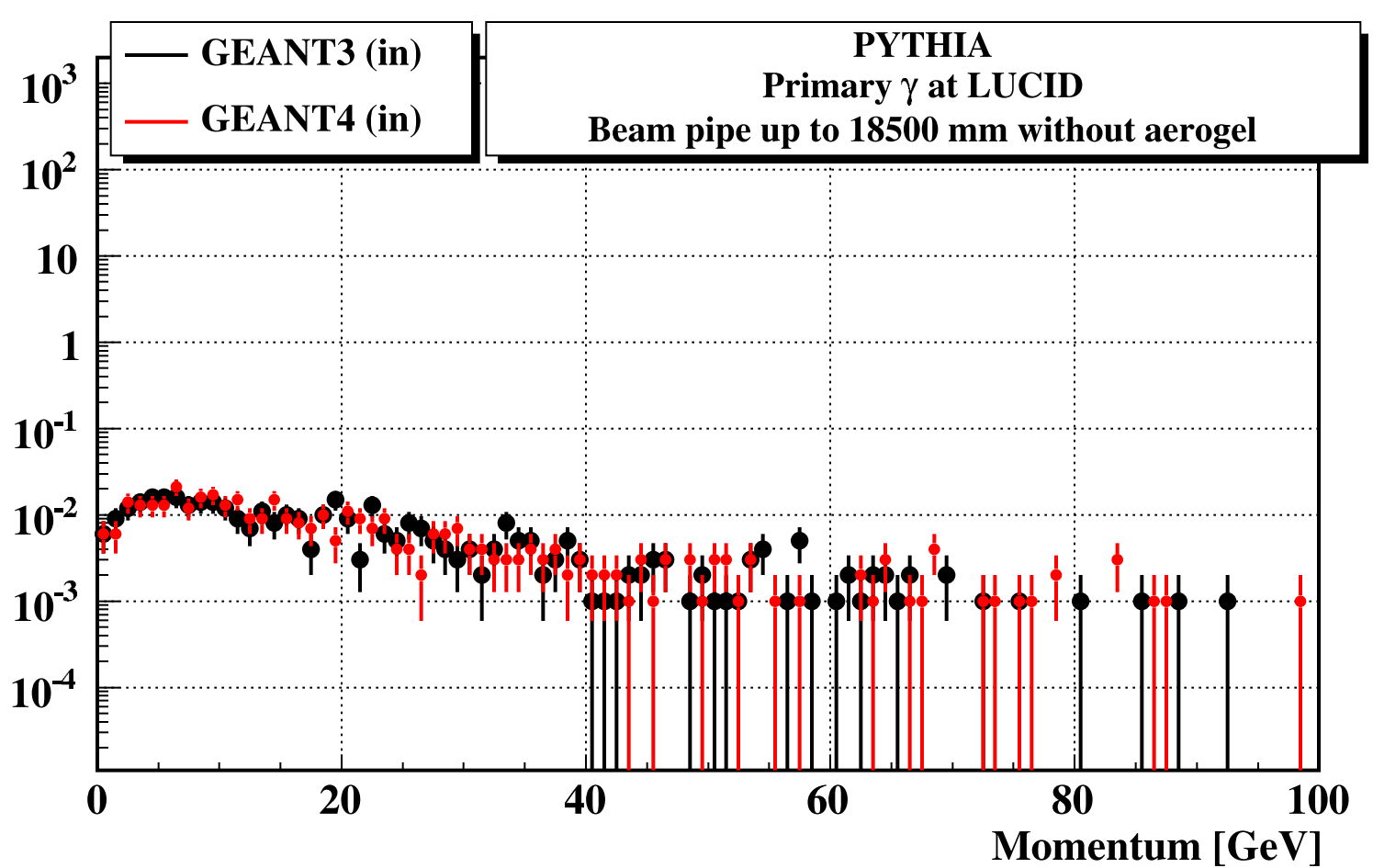

GEANT3 (in)
GEANT4 (in)
PYTHIA
Particles at LUCID
Beam pipe up to 18500 mm without aerogel
10^6
10^5
10^4
10^3
10^2
10
1
10^{-1}
10^{-2}
10^{-3}
10^{-4}
O γ e^+ e^- ? μ^+ μ^- π^0 π^+ π^- K_L^0 K^+ K^- n p $\bar{p}$ K_S^0 η Λ Σ^+ Σ^0 Σ^- Ξ^0 Ξ^- Ω^- $\bar{n}$ $\bar{\Lambda}$ $\bar{\Sigma}^-$ $\bar{\Sigma}^0$ $\bar{\Sigma}^+$ $\bar{\Xi}^0$ $\bar{\Xi}^+$ $\bar{\Omega}^+$

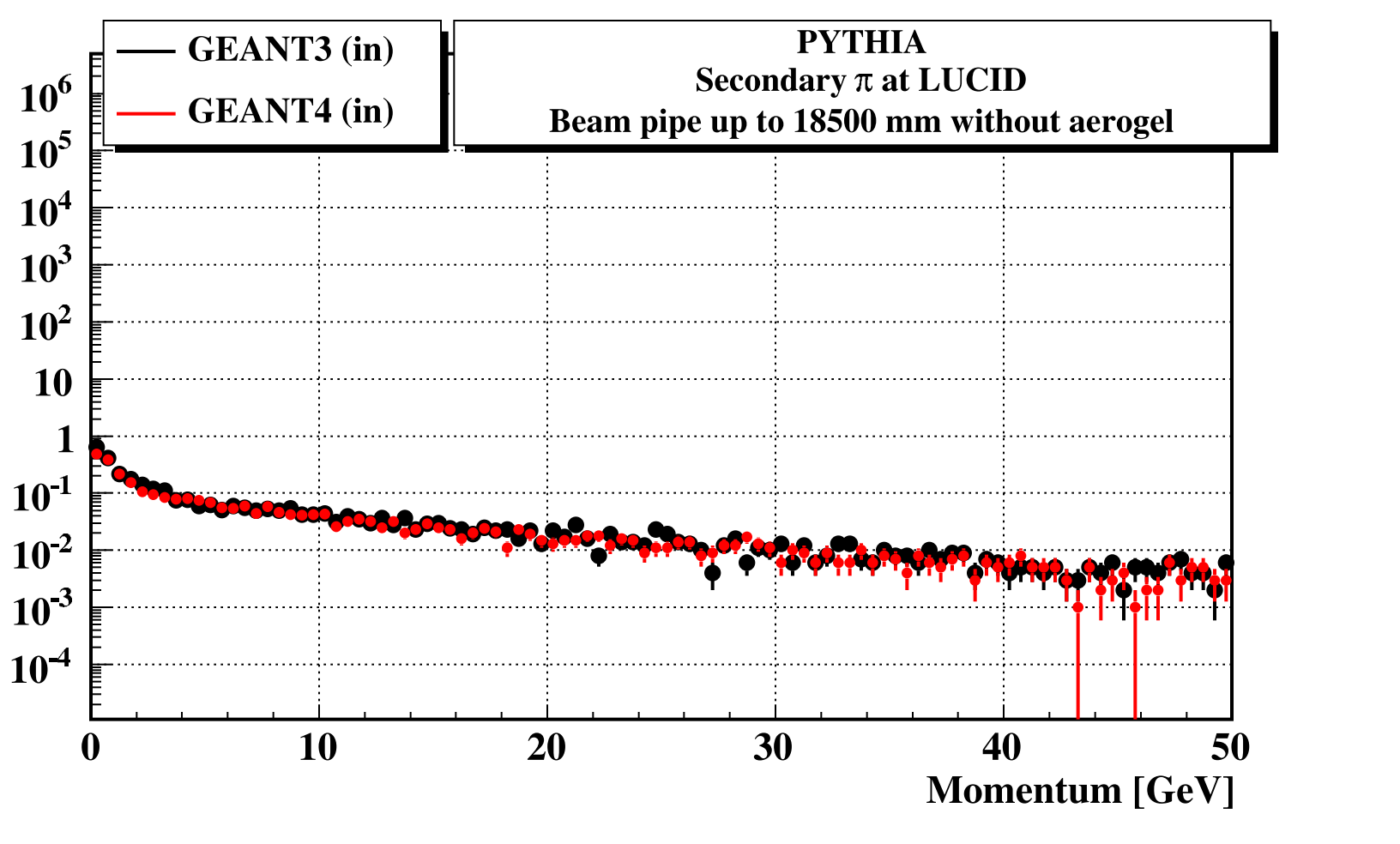

PYTHIA
Particles at LUCID
Beam pipe up to 18500 mm without aerogel
|G3 - G4| / max(G3, G4) [%]
120
100
80
60
40
20
0
O γ e+e- ? μ+μ- π0 π+π- K0LK+K- n p p̄ K0Sη Λ Σ+Σ0Σ- Ξ0Ξ- Ω-n̄ Λ̄ Σ̄- Σ̄0Σ̄+ Ξ̄0Ξ̄+ Ω̄+

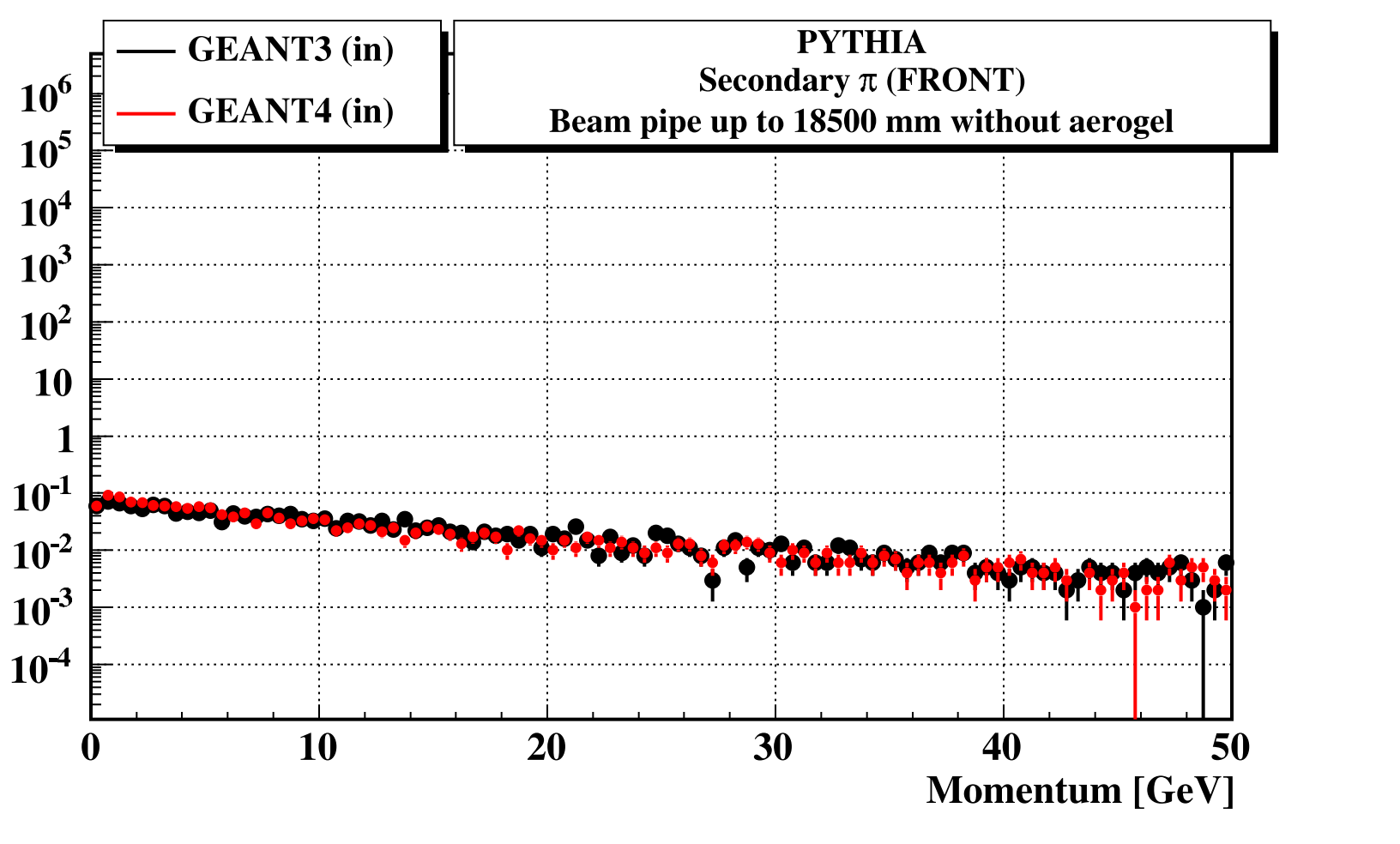

GEANT3 (in)
GEANT4 (in)
PYTHIA
Primary π at IP
Beam pipe up to 18500 mm without aerogel
10^3
10^2
10
1
10^-1
10^-2
10^-3
10^-4
0
20
40
60
80
100
Momentum [GeV]

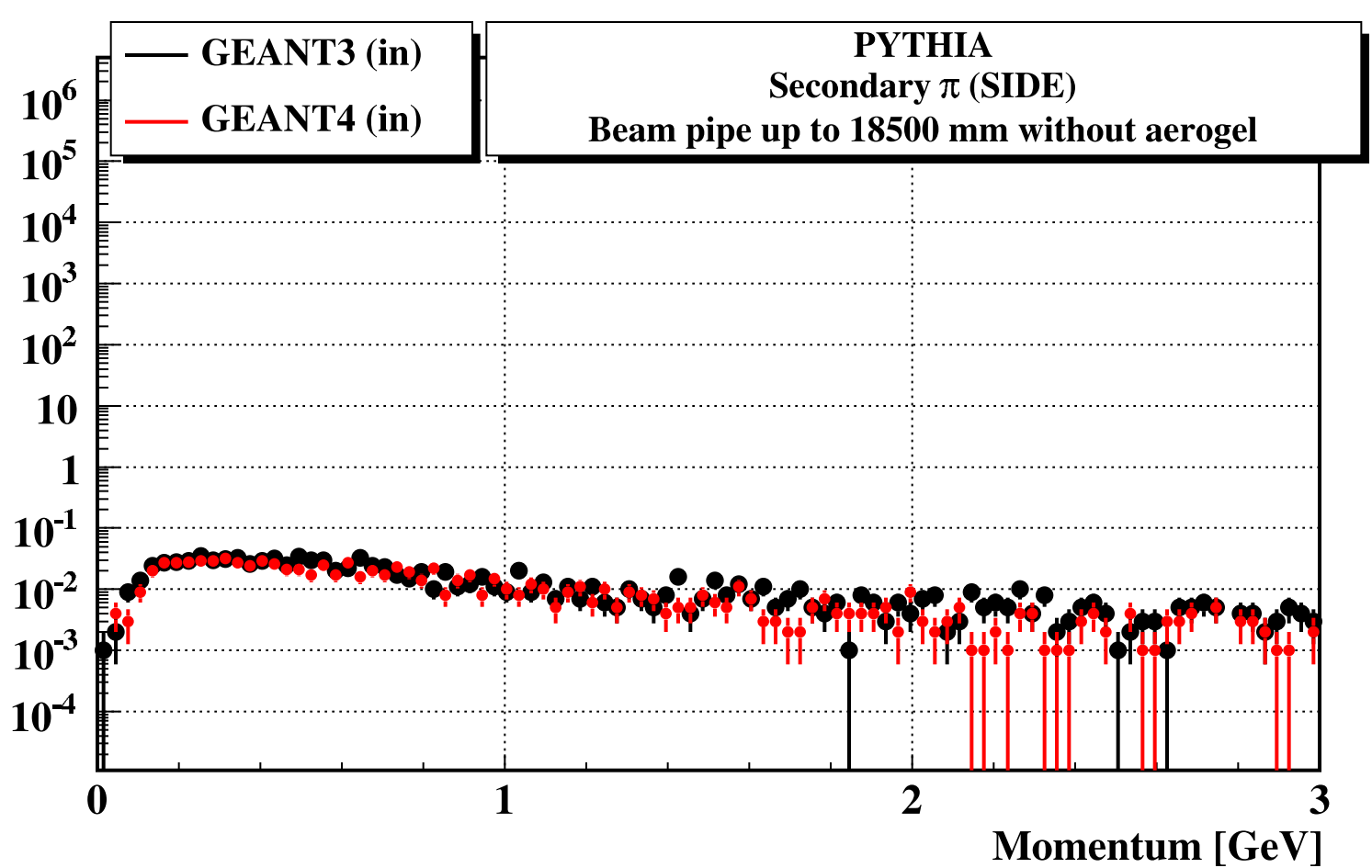

GEANT3 (in)
GEANT4 (in)
PYTHIA
Primary γ at IP
Beam pipe up to 18500 mm without aerogel
10^3
10^2
10
1
10^-1
10^-2
10^-3
10^-4
0
20
40
60
80
100
Momentum [GeV]

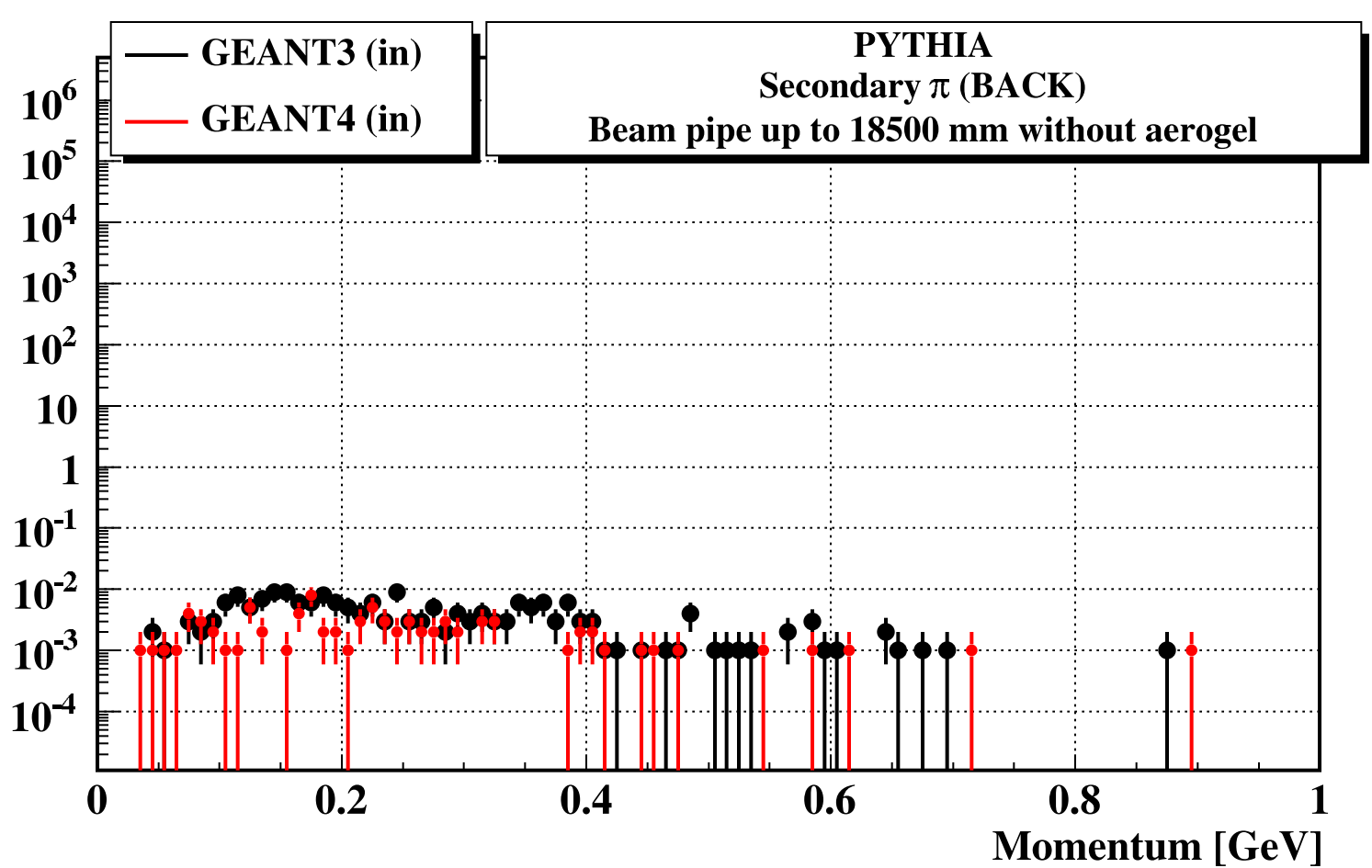

GEANT3 (in)
GEANT4 (in)
PYTHIA
Primary π at LUCID
Beam pipe up to 18500 mm without aerogel
10^3
10^2
10
1
10^-1
10^-2
10^-3
10^-4
0
20
40
60
80
100
Momentum [GeV]

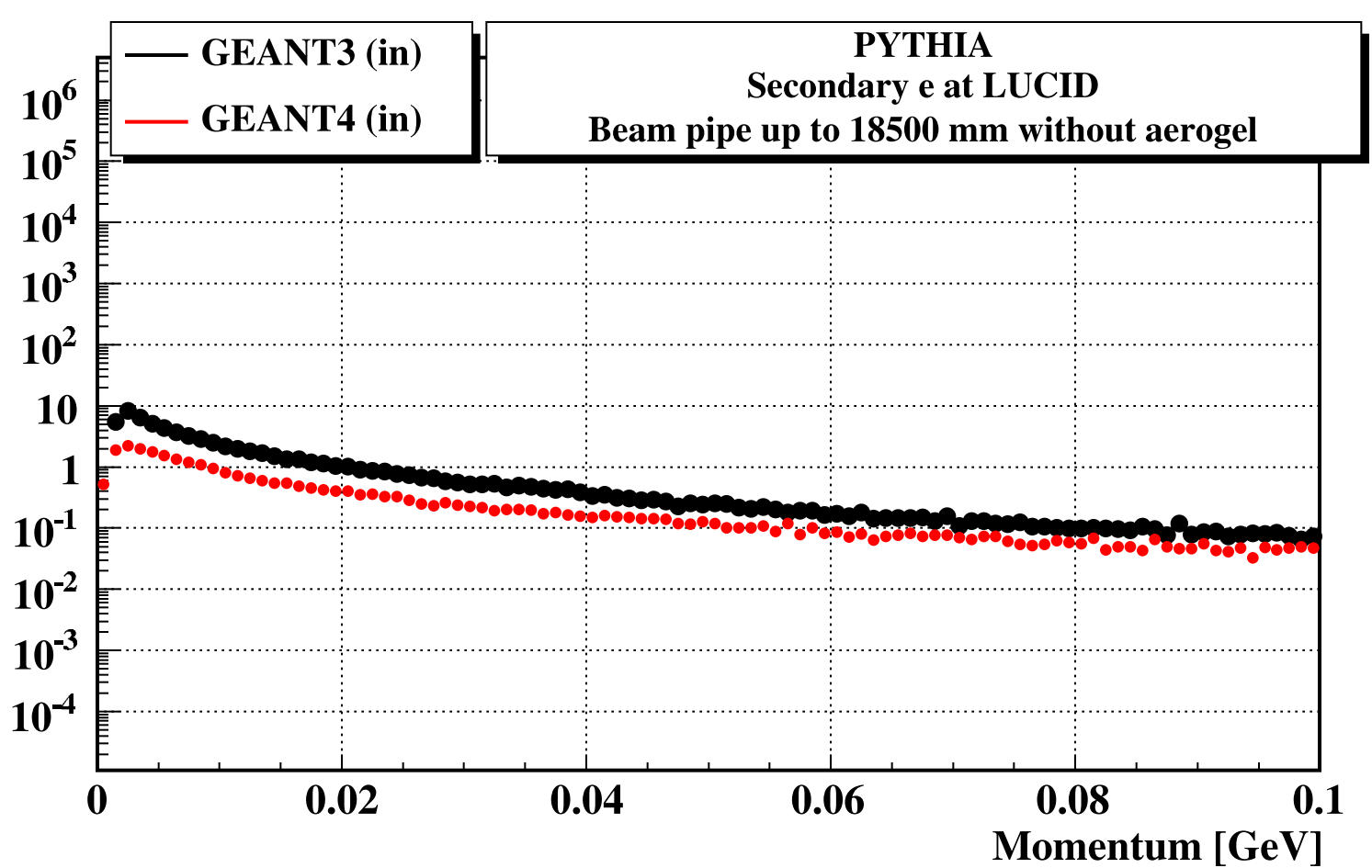

GEANT3 (in)
GEANT4 (in)
PYTHIA
Primary γ at LUCID
Beam pipe up to 18500 mm without aerogel
10^3
10^2
10
1
10^-1
10^-2
10^-3
10^-4
0
20
40
60
80
100
Momentum [GeV]

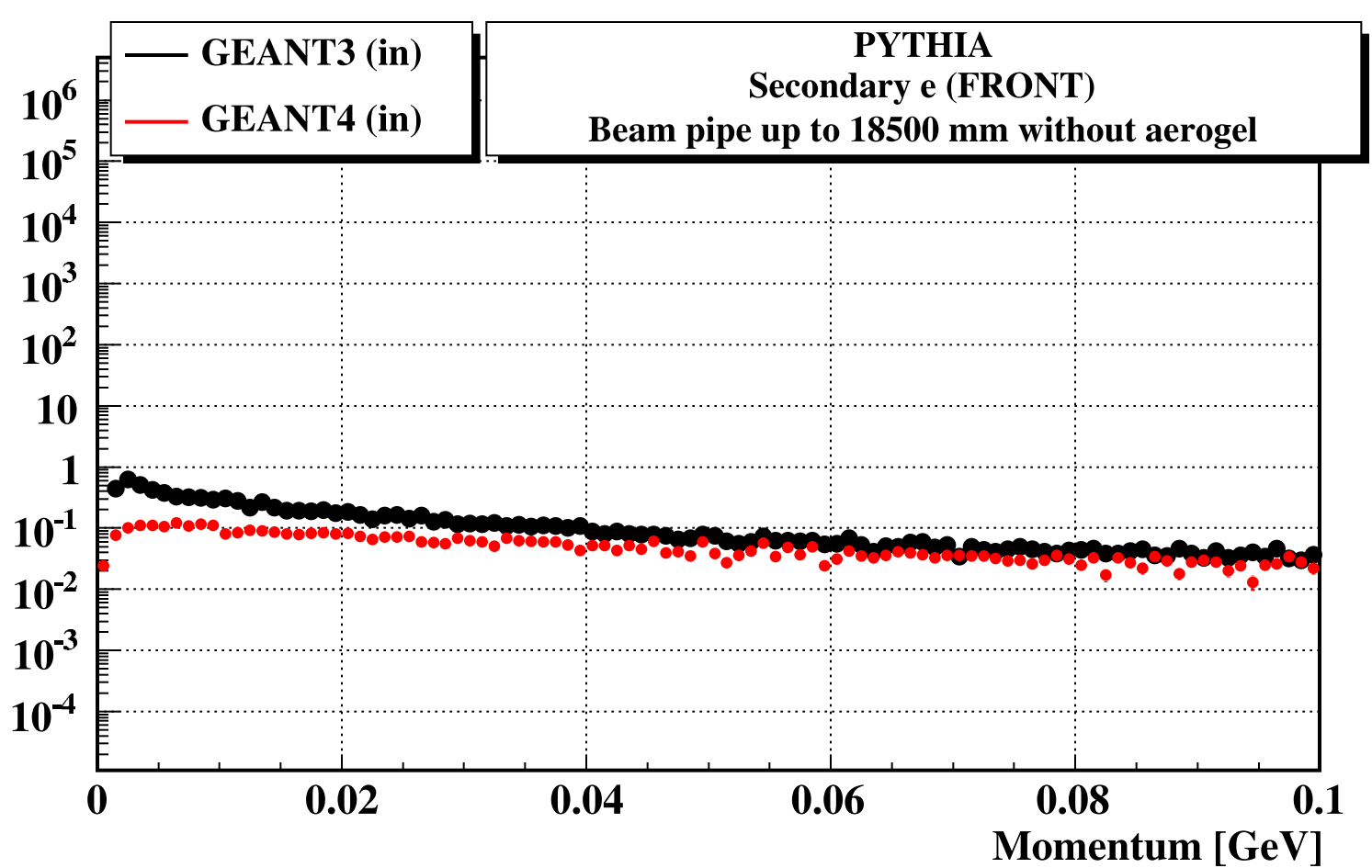

GEANT3 (in)
GEANT4 (in)
PYTHIA
Secondary π at LUCID
Beam pipe up to 18500 mm without aerogel
10^6
10^5
10^4
10^3
10^2
10
1
10^-1
10^-2
10^-3
10^-4
0
10
20
30
40
50
Momentum [GeV]

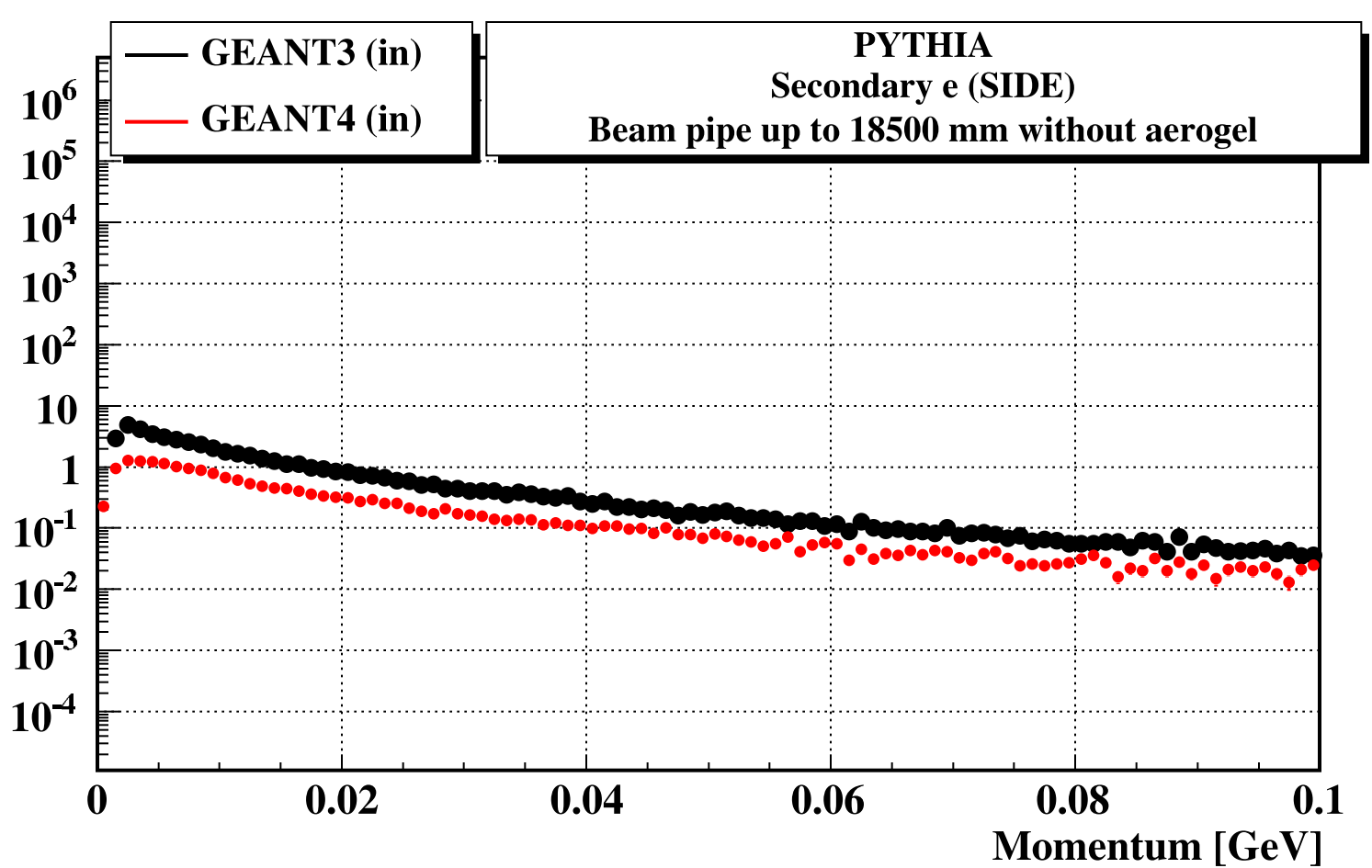

GEANT3 (in)
GEANT4 (in)
PYTHIA
Secondary π (FRONT)
Beam pipe up to 18500 mm without aerogel
10^6
10^5
10^4
10^3
10^2
10
1
10^-1
10^-2
10^-3
10^-4
0
10
20
30
40
50
Momentum [GeV]

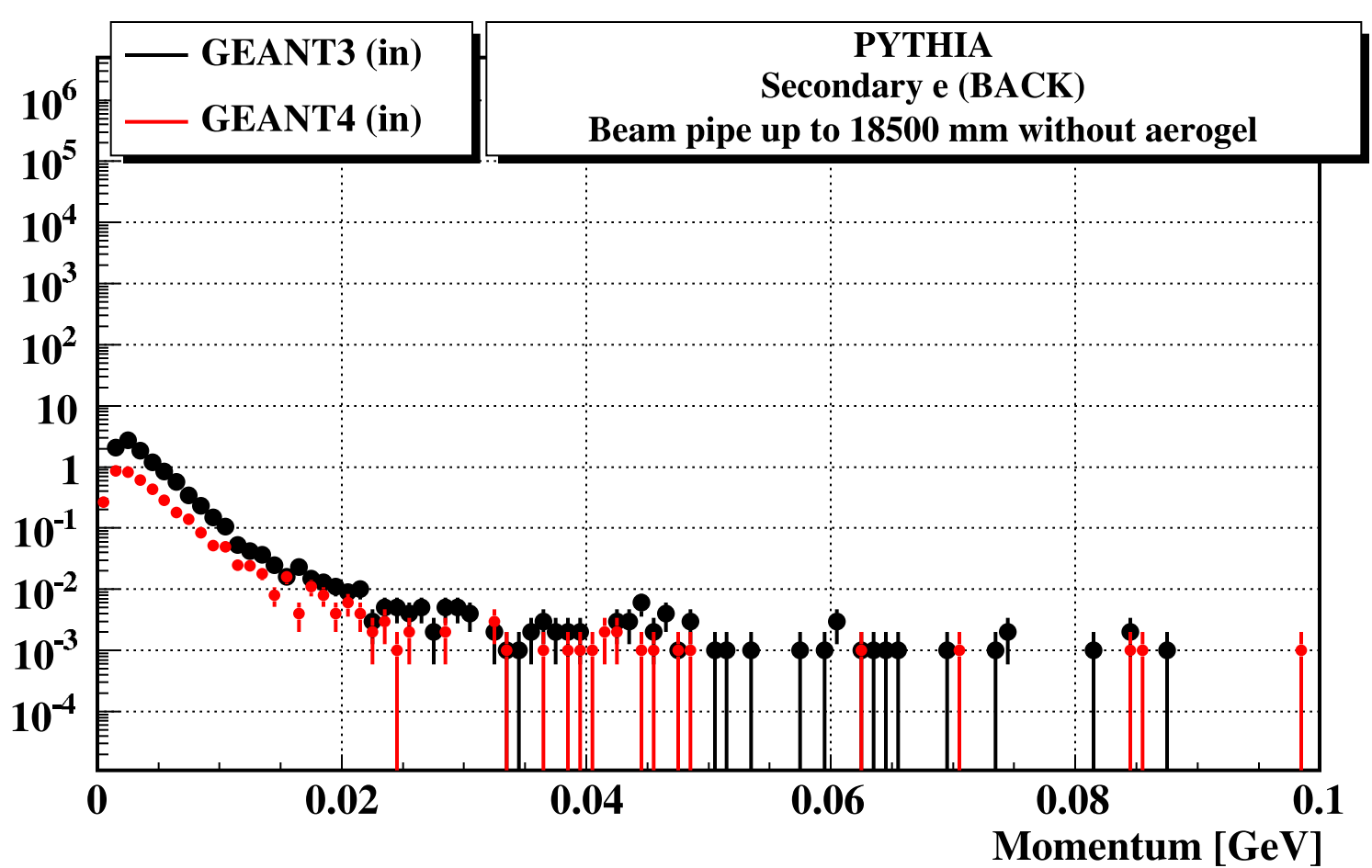

GEANT3 (in)
GEANT4 (in)
PYTHIA
Secondary π (SIDE)
Beam pipe up to 18500 mm without aerogel
10^6
10^5
10^4
10^3
10^2
10
1
10^-1
10^-2
10^-3
10^-4
0
1
2
3
Momentum [GeV]

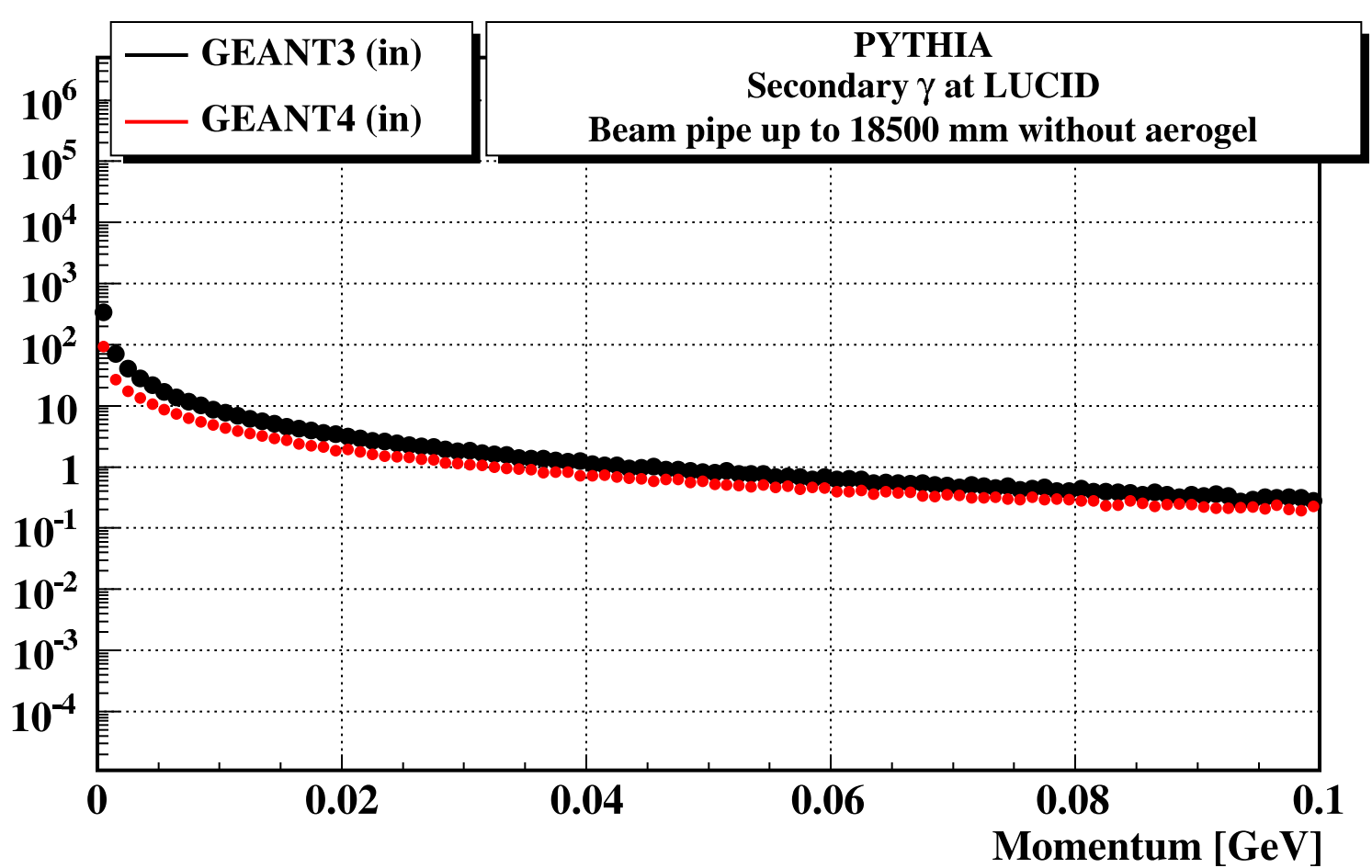

GEANT3 (in)
GEANT4 (in)
PYTHIA
Secondary π (BACK)
Beam pipe up to 18500 mm without aerogel
10^6
10^5
10^4
10^3
10^2
10
1
10^-1
10^-2
10^-3
10^-4
0
0.2
0.4
0.6
0.8
1
Momentum [GeV]

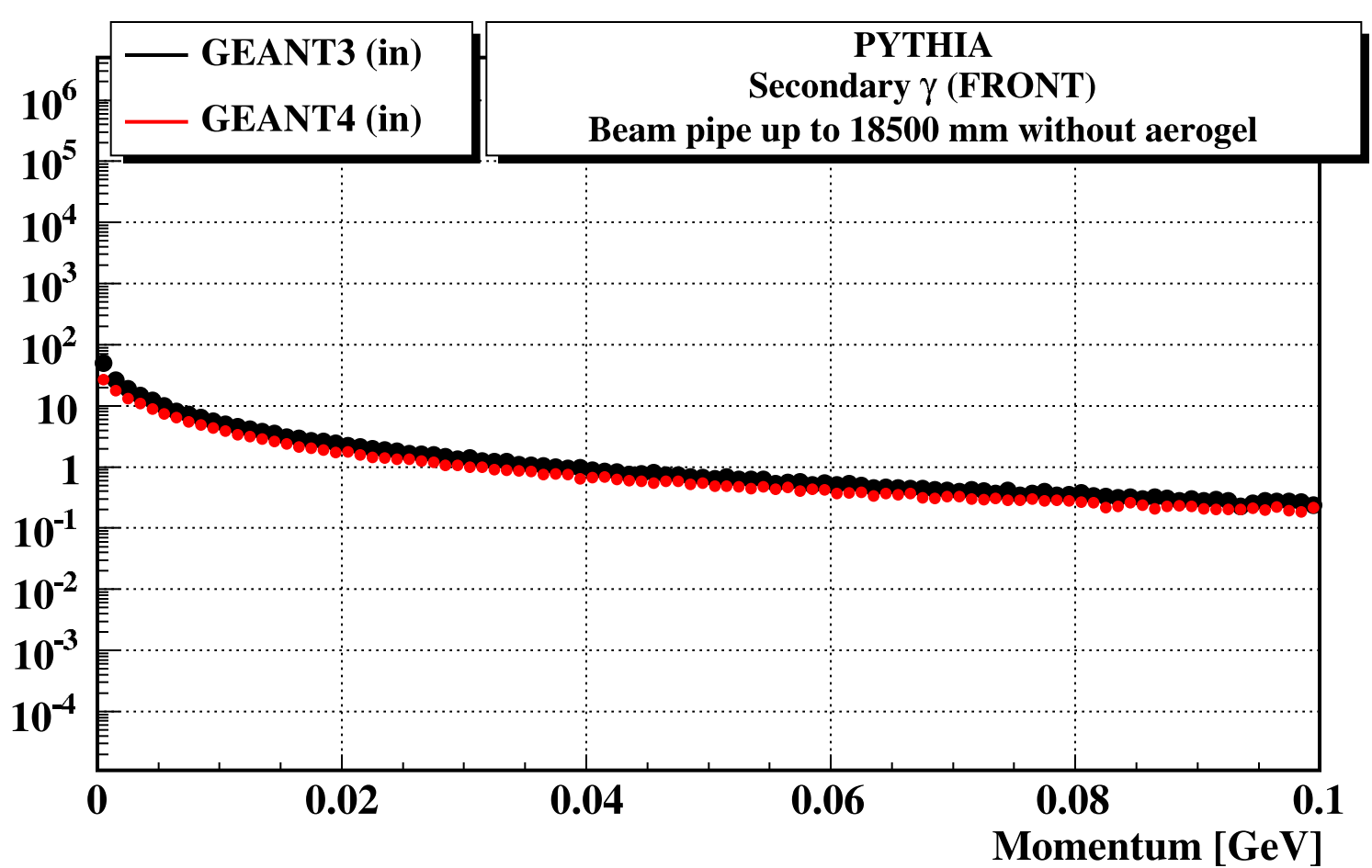

GEANT3 (in)
GEANT4 (in)
PYTHIA
Secondary e at LUCID
Beam pipe up to 18500 mm without aerogel
10^6
10^5
10^4
10^3
10^2
10
1
10^-1
10^-2
10^-3
10^-4
0
0.02
0.04
0.06
0.08
0.1
Momentum [GeV]

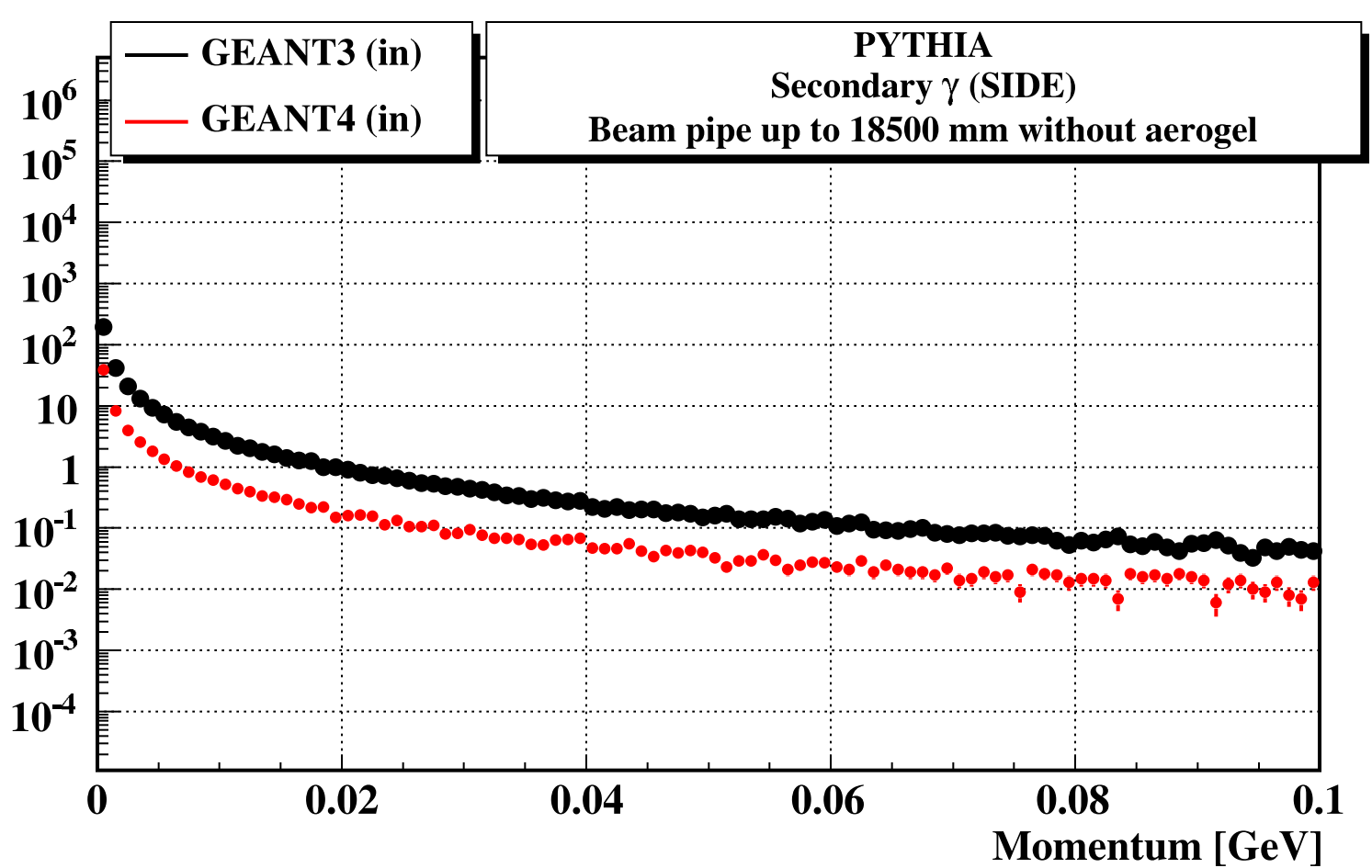

GEANT3 (in)
GEANT4 (in)
PYTHIA
Secondary e (FRONT)
Beam pipe up to 18500 mm without aerogel
10^6
10^5
10^4
10^3
10^2
10
1
10^-1
10^-2
10^-3
10^-4
0
0.02
0.04
0.06
0.08
0.1
Momentum [GeV]

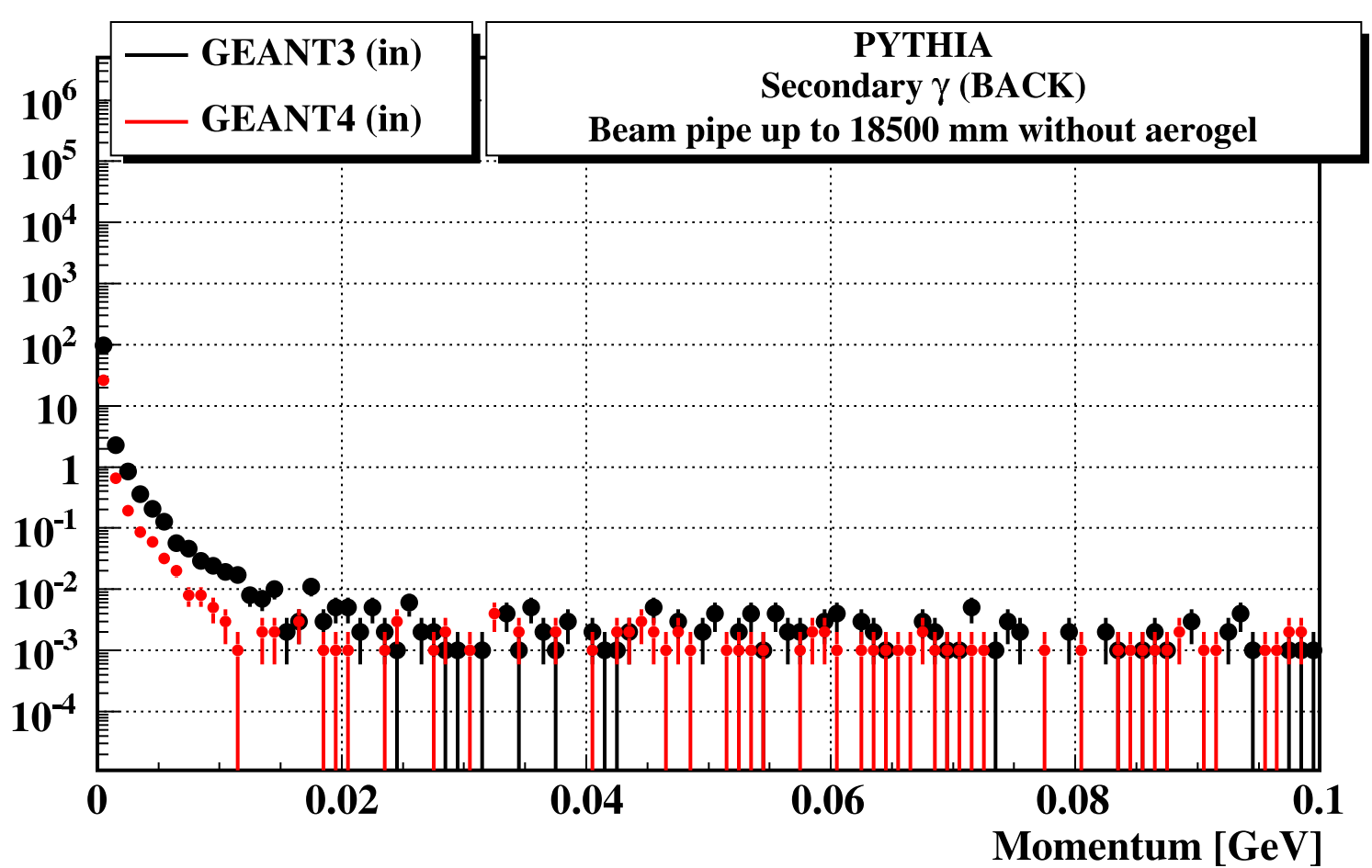

GEANT3 (in)
GEANT4 (in)
PYTHIA
Secondary e (SIDE)
Beam pipe up to 18500 mm without aerogel
10^6
10^5
10^4
10^3
10^2
10
1
10^-1
10^-2
10^-3
10^-4
0
0.02
0.04
0.06
0.08
0.1
Momentum [GeV]

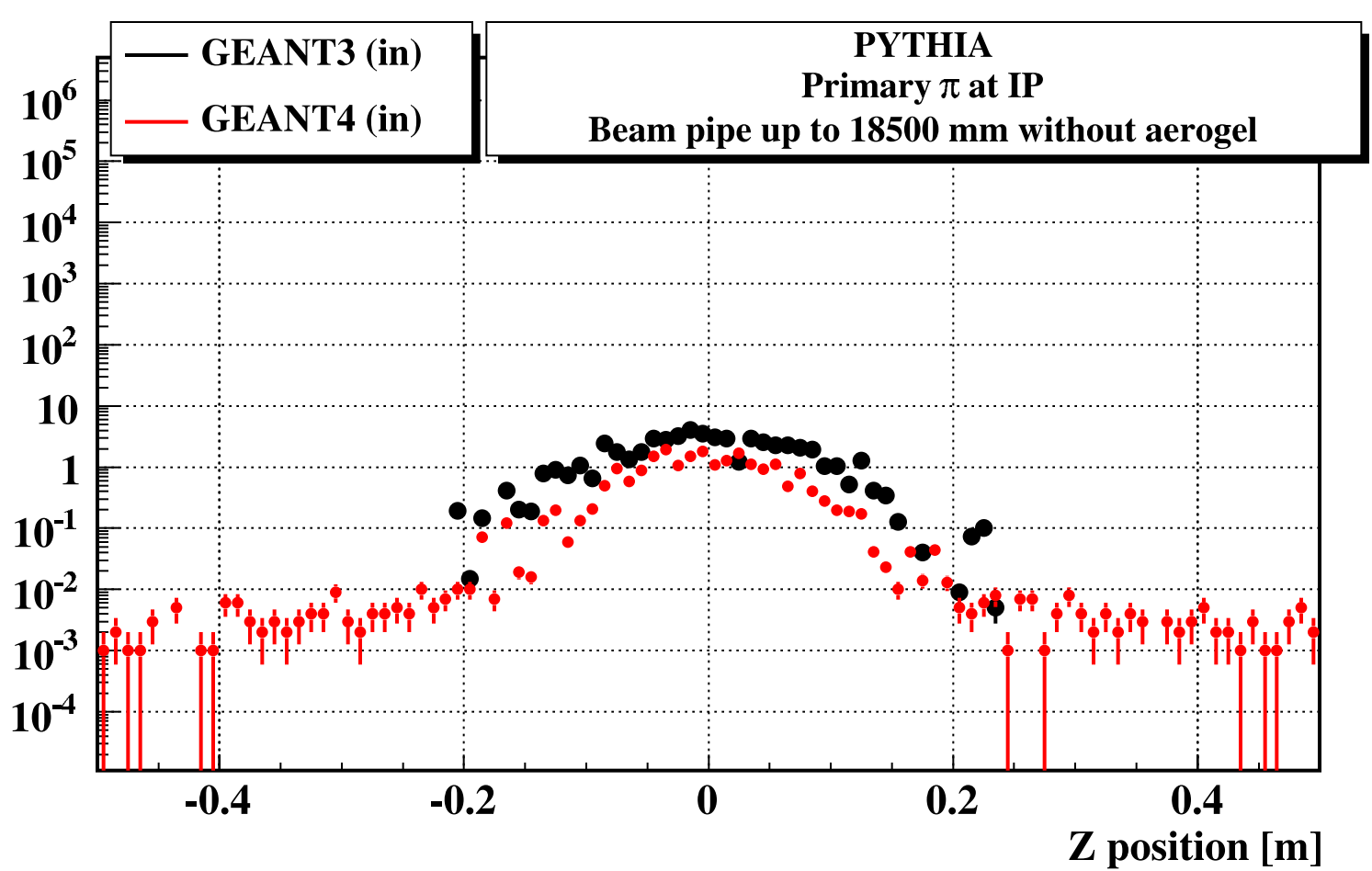

GEANT3 (in)
GEANT4 (in)
PYTHIA
Secondary e (BACK)
Beam pipe up to 18500 mm without aerogel
10^6
10^5
10^4
10^3
10^2
10
1
10^{-1}
10^{-2}
10^{-3}
10^{-4}
0
0.02
0.04
0.06
0.08
0.1
Momentum [GeV]

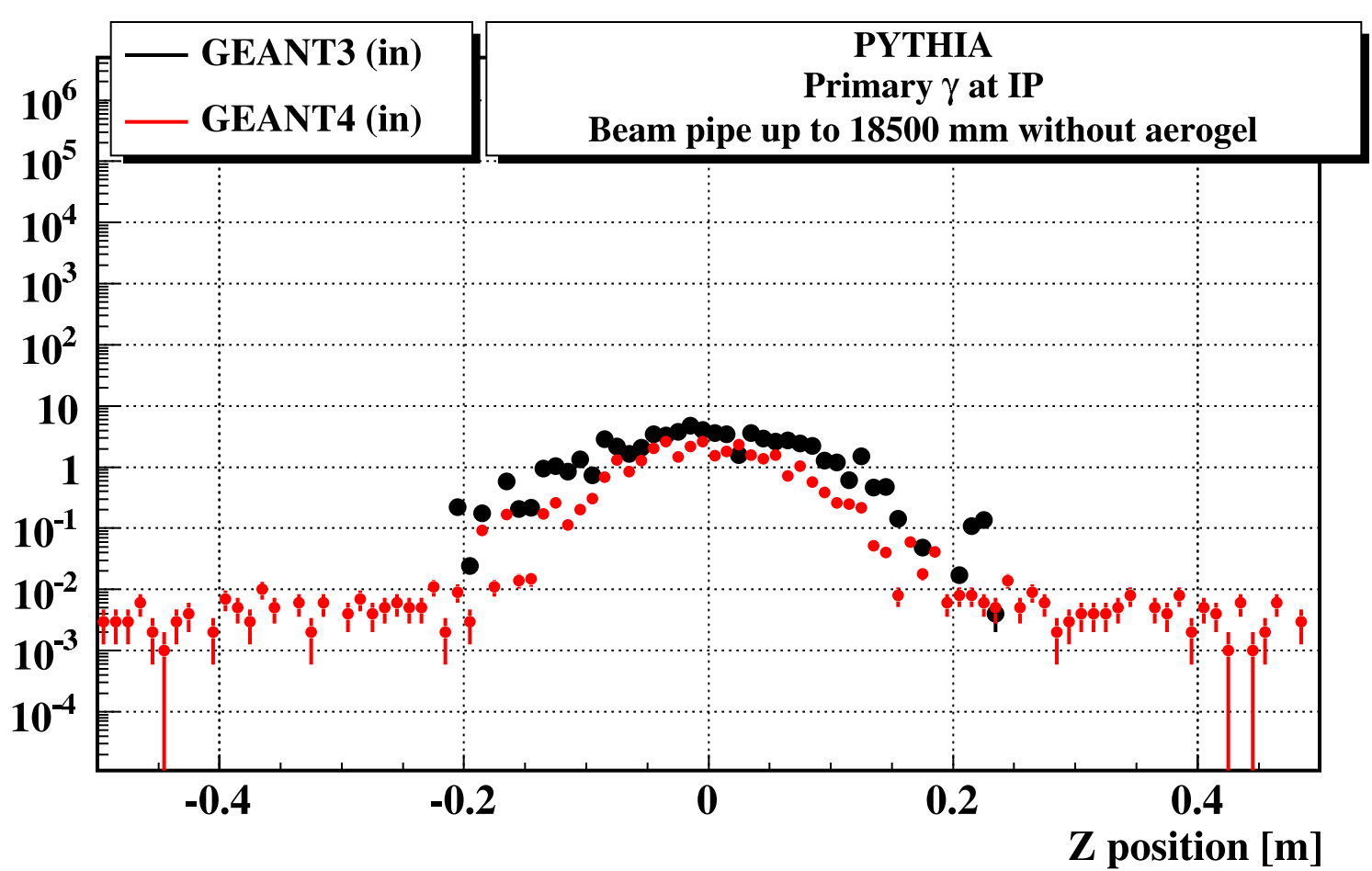

GEANT3 (in)
GEANT4 (in)
PYTHIA
Secondary γ at LUCID
Beam pipe up to 18500 mm without aerogel
10^6
10^5
10^4
10^3
10^2
10
1
10^-1
10^-2
10^-3
10^-4
0
0.02
0.04
0.06
0.08
0.1
Momentum [GeV]

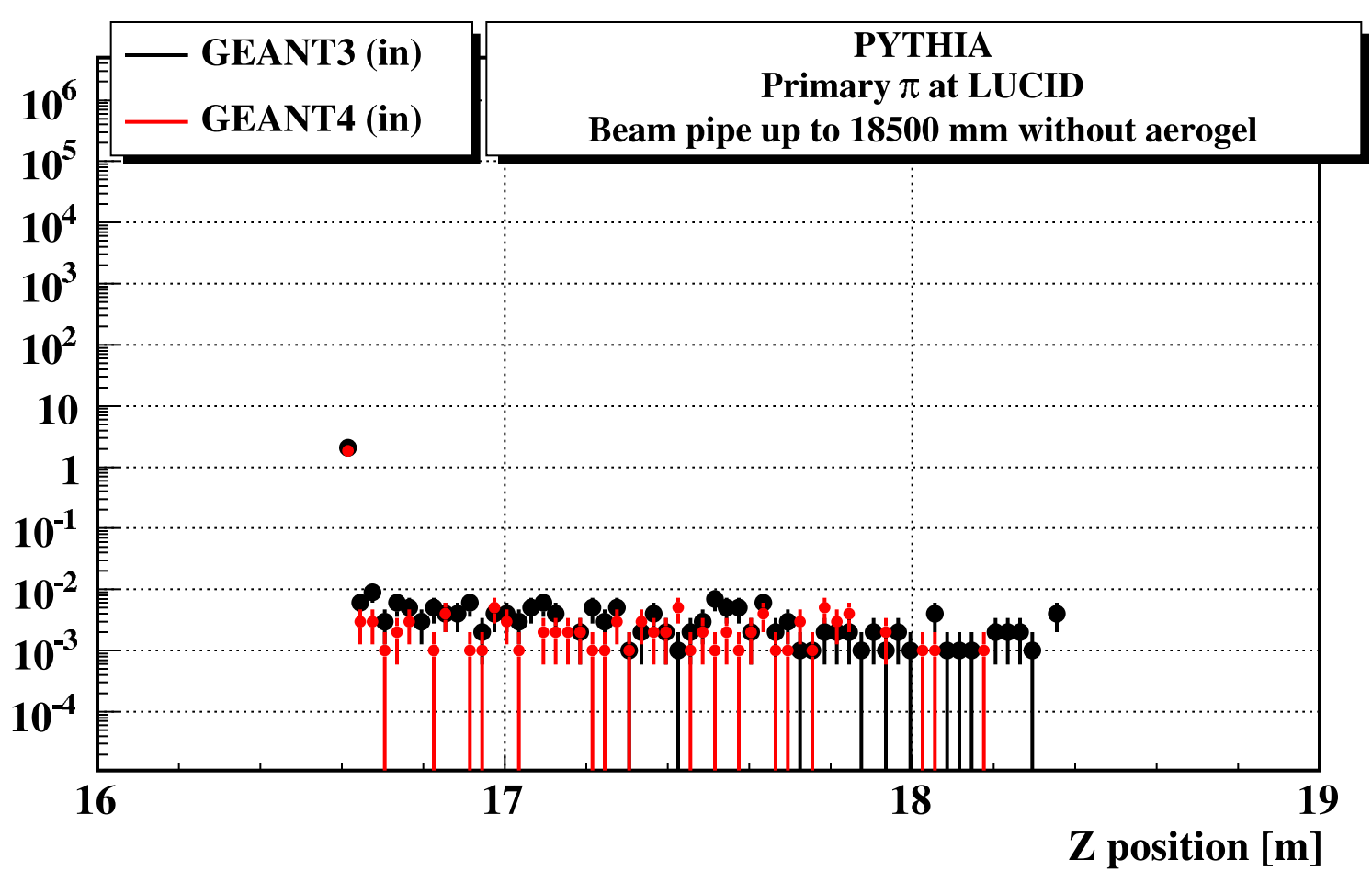

GEANT3 (in)
GEANT4 (in)
PYTHIA
Secondary γ (FRONT)
Beam pipe up to 18500 mm without aerogel
10^6
10^5
10^4
10^3
10^2
10
1
10^-1
10^-2
10^-3
10^-4
0
0.02
0.04
0.06
0.08
0.1
Momentum [GeV]

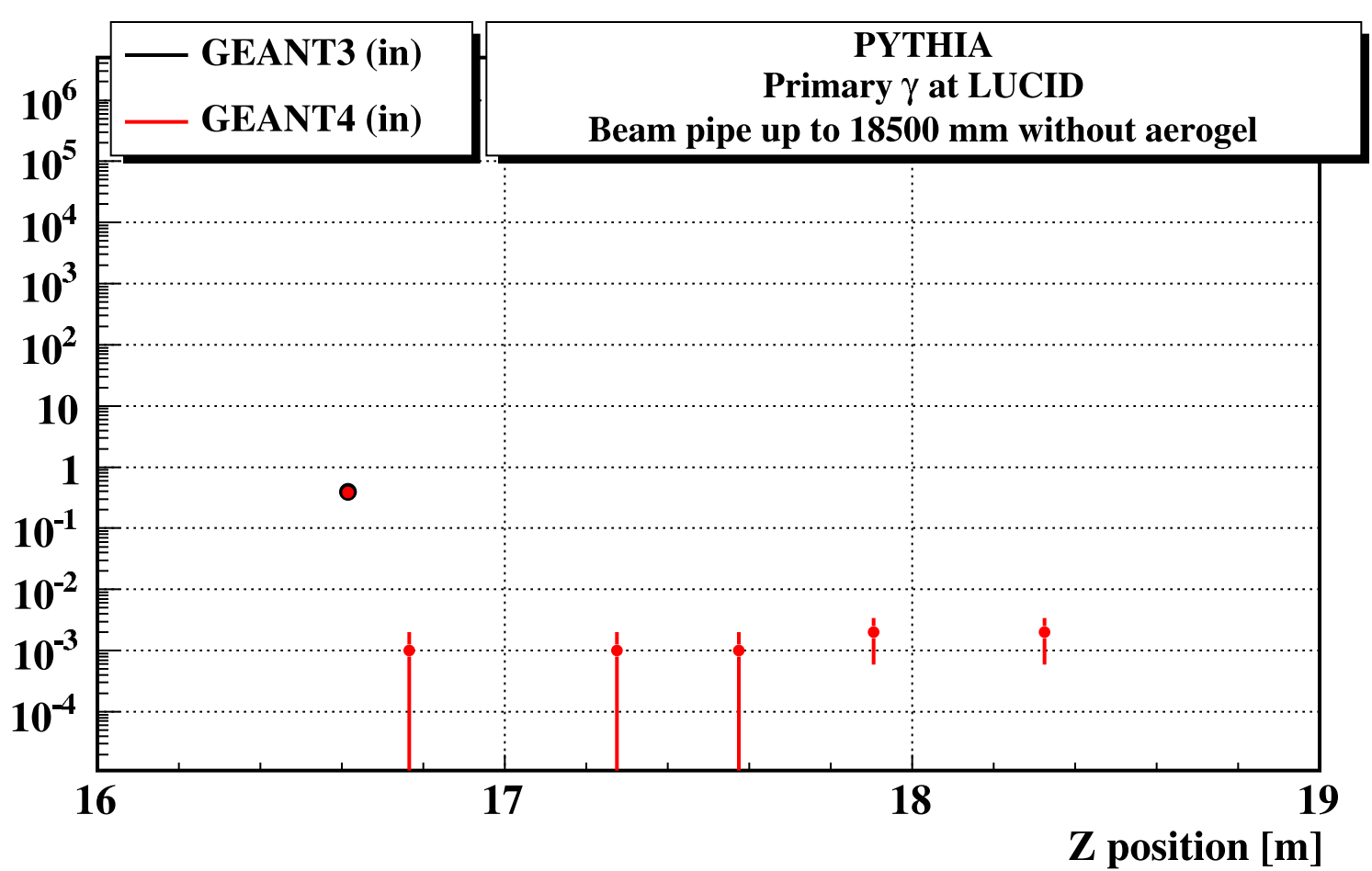

GEANT3 (in)
GEANT4 (in)
PYTHIA
Secondary γ (SIDE)
Beam pipe up to 18500 mm without aerogel
10^6
10^5
10^4
10^3
10^2
10
1
10^-1
10^-2
10^-3
10^-4
0
0.02
0.04
0.06
0.08
0.1
Momentum [GeV]

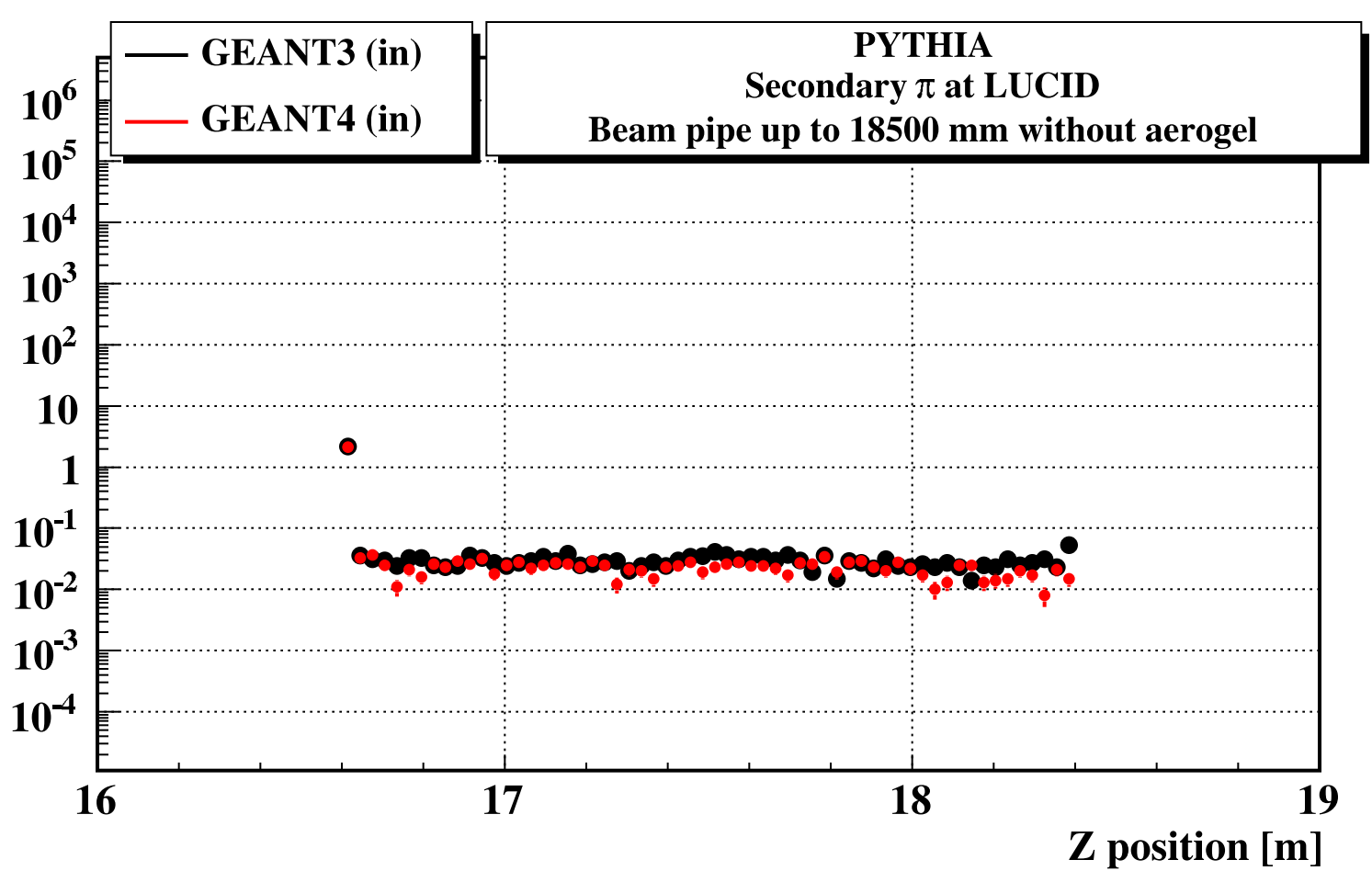

GEANT3 (in)
GEANT4 (in)
PYTHIA
Secondary γ (BACK)
Beam pipe up to 18500 mm without aerogel
10^6
10^5
10^4
10^3
10^2
10
1
10^-1
10^-2
10^-3
10^-4
0
0.02
0.04
0.06
0.08
0.1
Momentum [GeV]

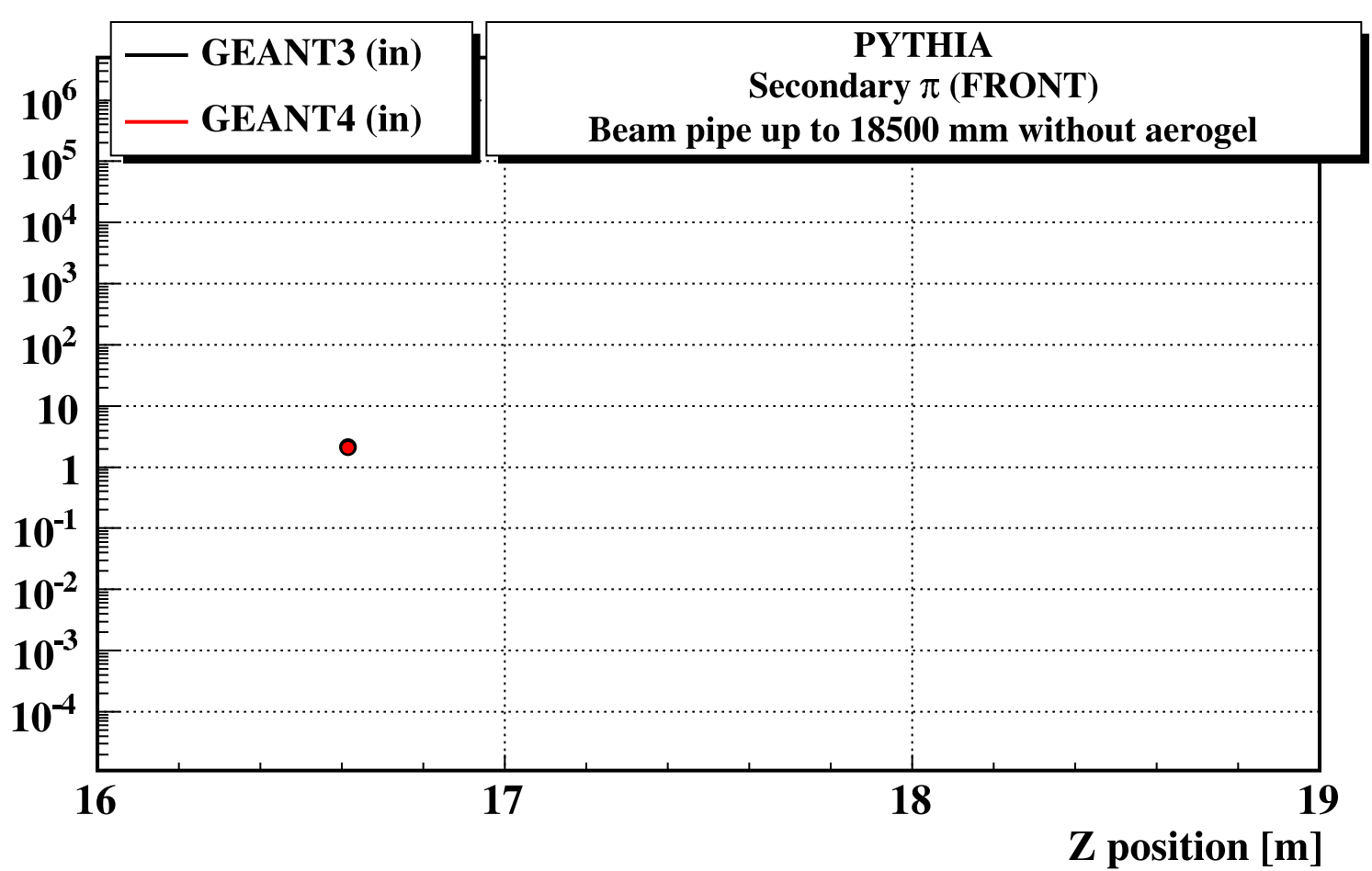

GEANT3 (in)
GEANT4 (in)
PYTHIA
Primary π at IP
Beam pipe up to 18500 mm without aerogel
10^6
10^5
10^4
10^3
10^2
10
1
10^-1
10^-2
10^-3
10^-4
-0.4
-0.2
0
0.2
0.4
Z position [m]

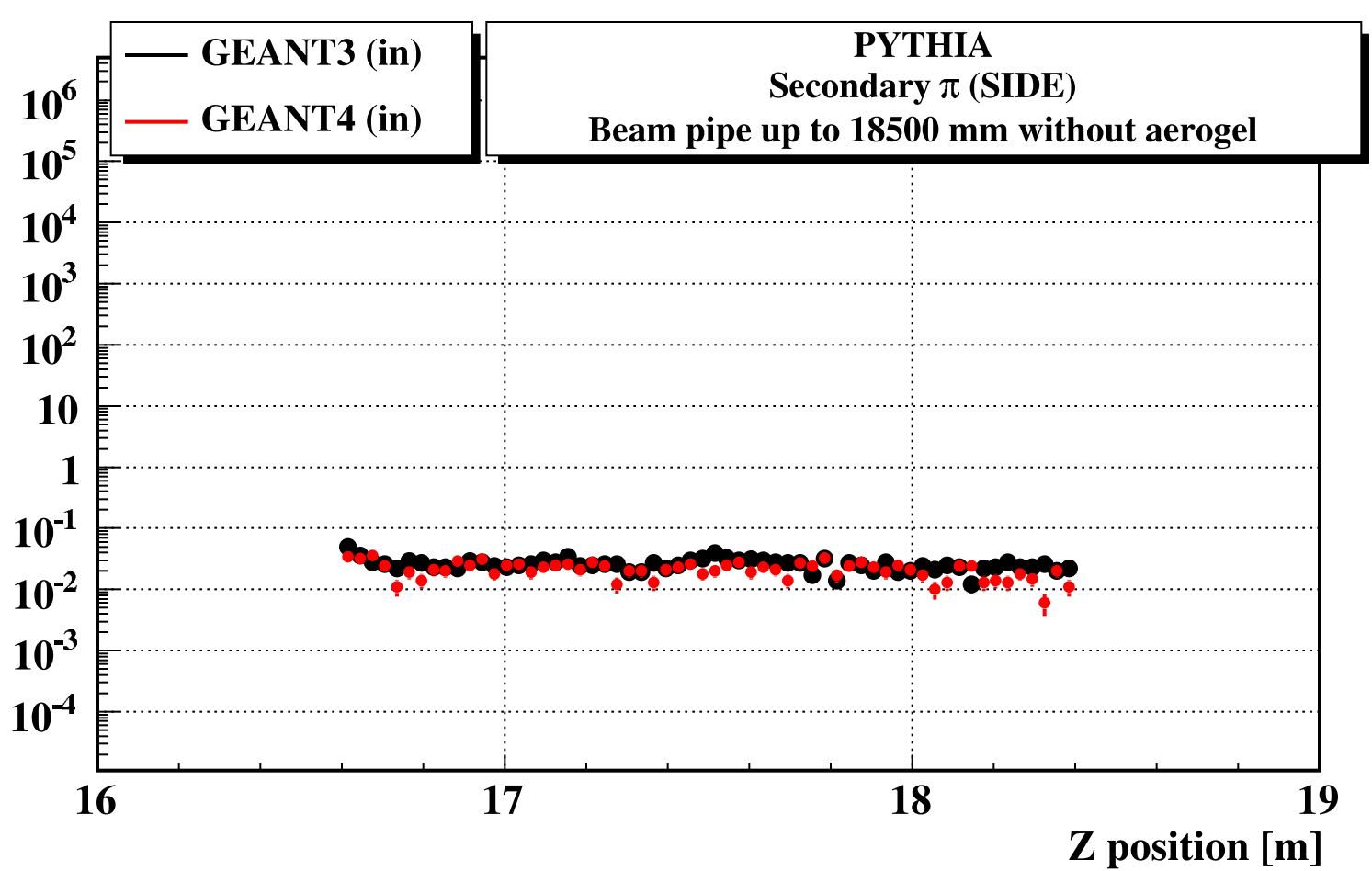

GEANT3 (in)
GEANT4 (in)
PYTHIA
Primary γ at IP
Beam pipe up to 18500 mm without aerogel
10^6
10^5
10^4
10^3
10^2
10
1
10^-1
10^-2
10^-3
10^-4
-0.4
-0.2
0
0.2
0.4
Z position [m]

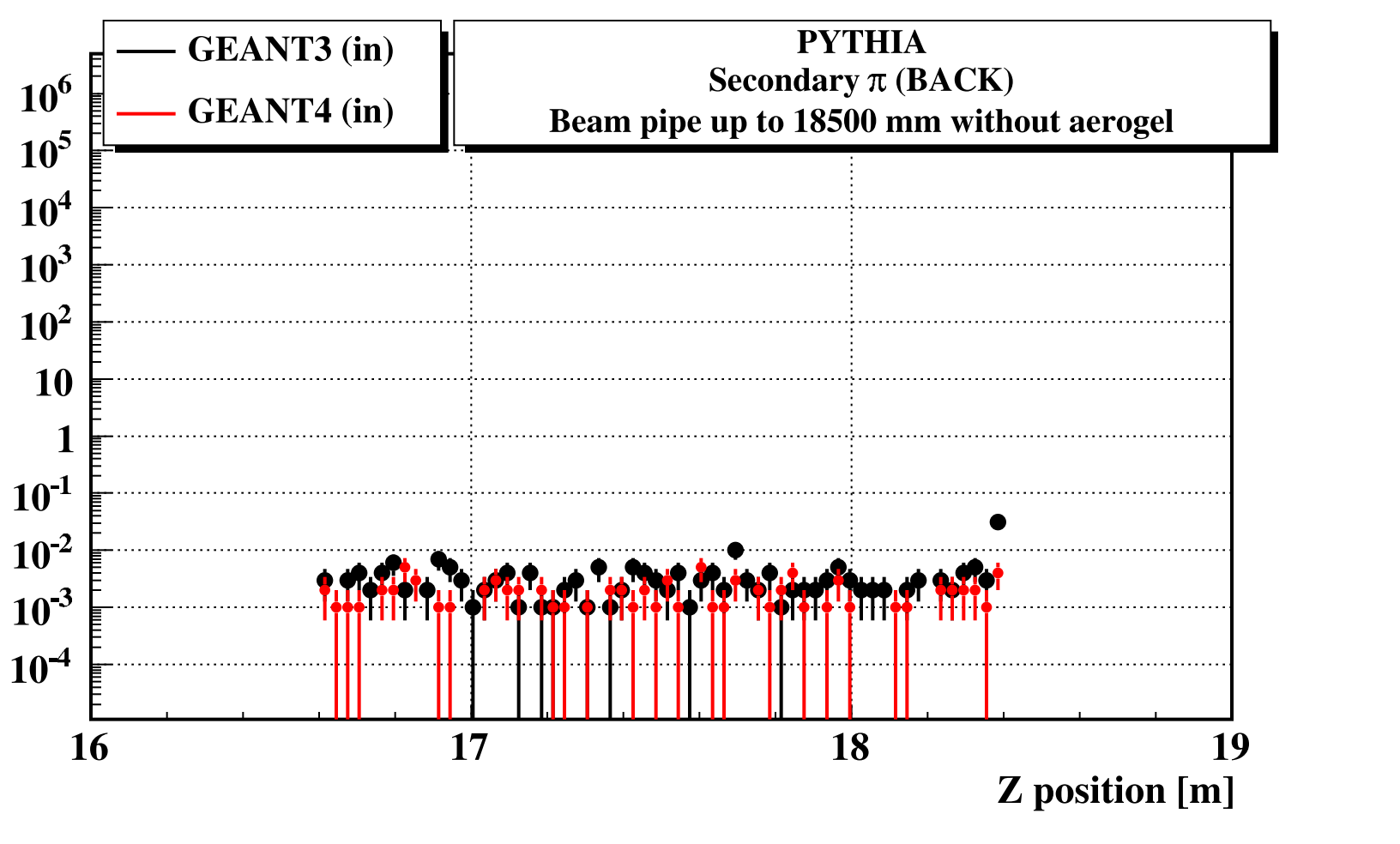

GEANT3 (in)
GEANT4 (in)
PYTHIA
Primary π at LUCID
Beam pipe up to 18500 mm without aerogel
10^6
10^5
10^4
10^3
10^2
10
1
10^-1
10^-2
10^-3
10^-4
16
17
18
19
Z position [m]

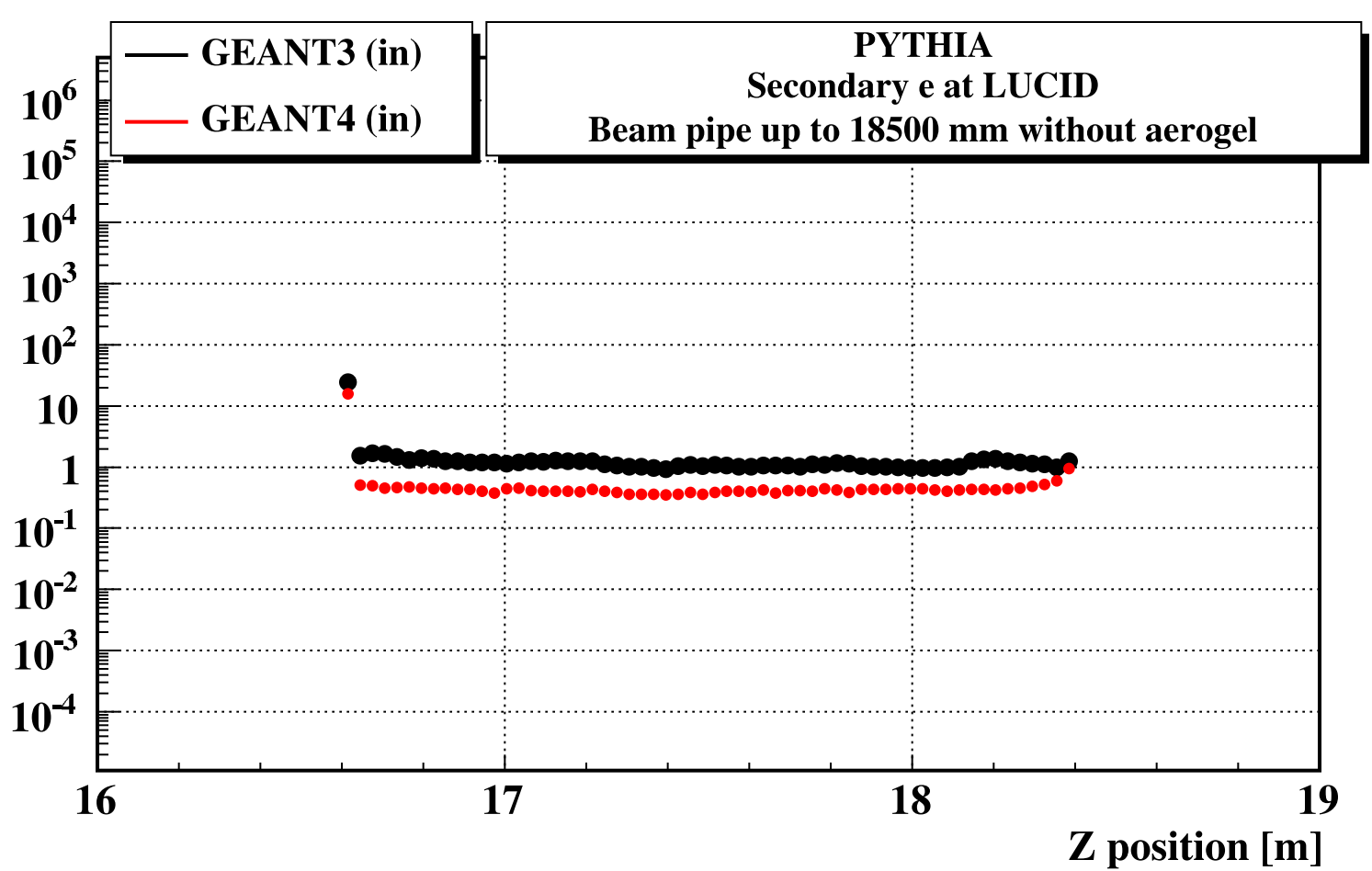

GEANT3 (in)
GEANT4 (in)
PYTHIA
Primary γ at LUCID
Beam pipe up to 18500 mm without aerogel
10^6
10^5
10^4
10^3
10^2
10
1
10^-1
10^-2
10^-3
10^-4
16
17
18
19
Z position [m]

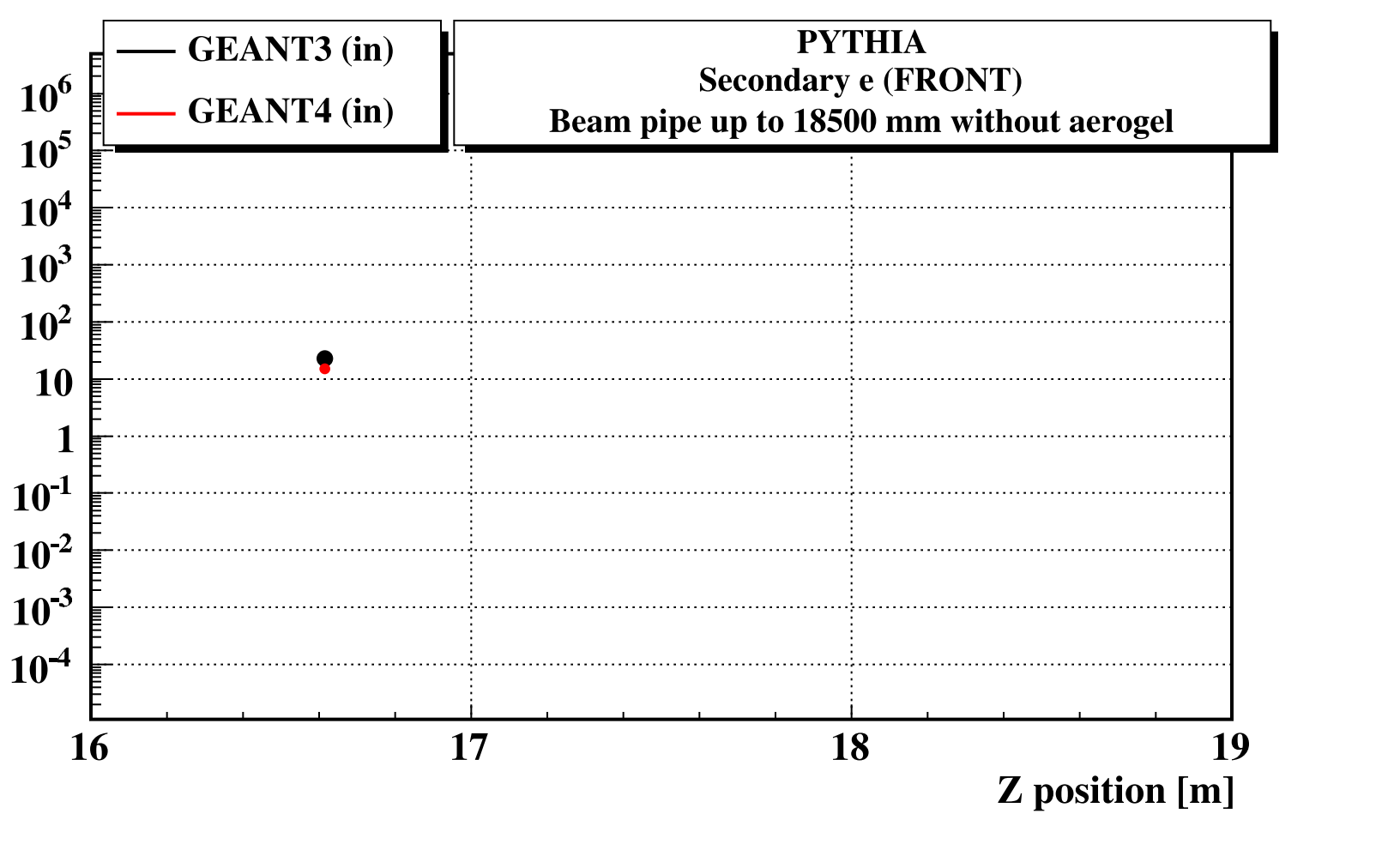

GEANT3 (in)
GEANT4 (in)
PYTHIA
Secondary π at LUCID
Beam pipe up to 18500 mm without aerogel
10^6
10^5
10^4
10^3
10^2
10
1
10^-1
10^-2
10^-3
10^-4
16
17
18
19
Z position [m]

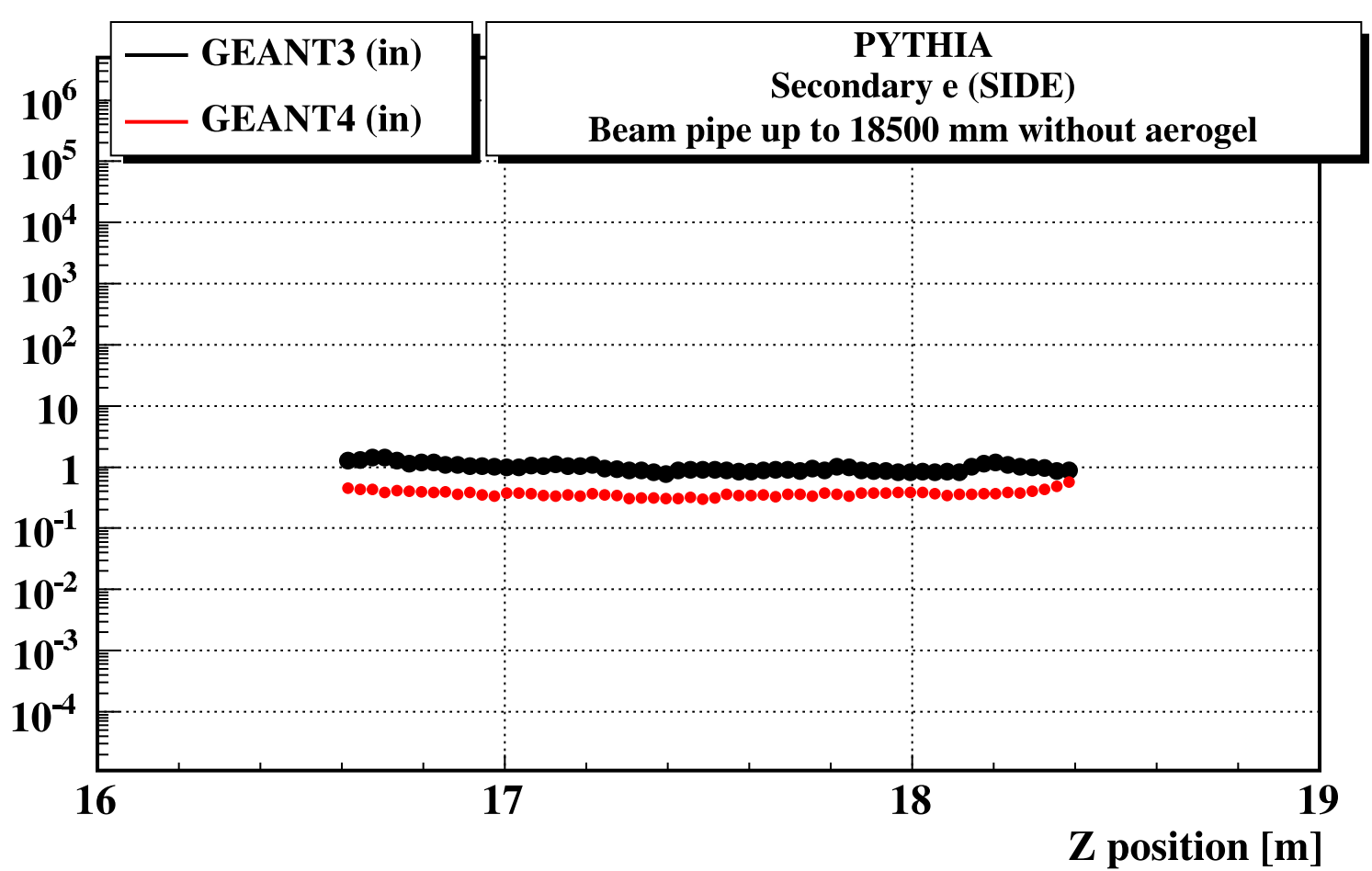

GEANT3 (in)
GEANT4 (in)
PYTHIA
Secondary π (FRONT)
Beam pipe up to 18500 mm without aerogel
10^6
10^5
10^4
10^3
10^2
10
1
10^-1
10^-2
10^-3
10^-4
16
17
18
19
Z position [m]

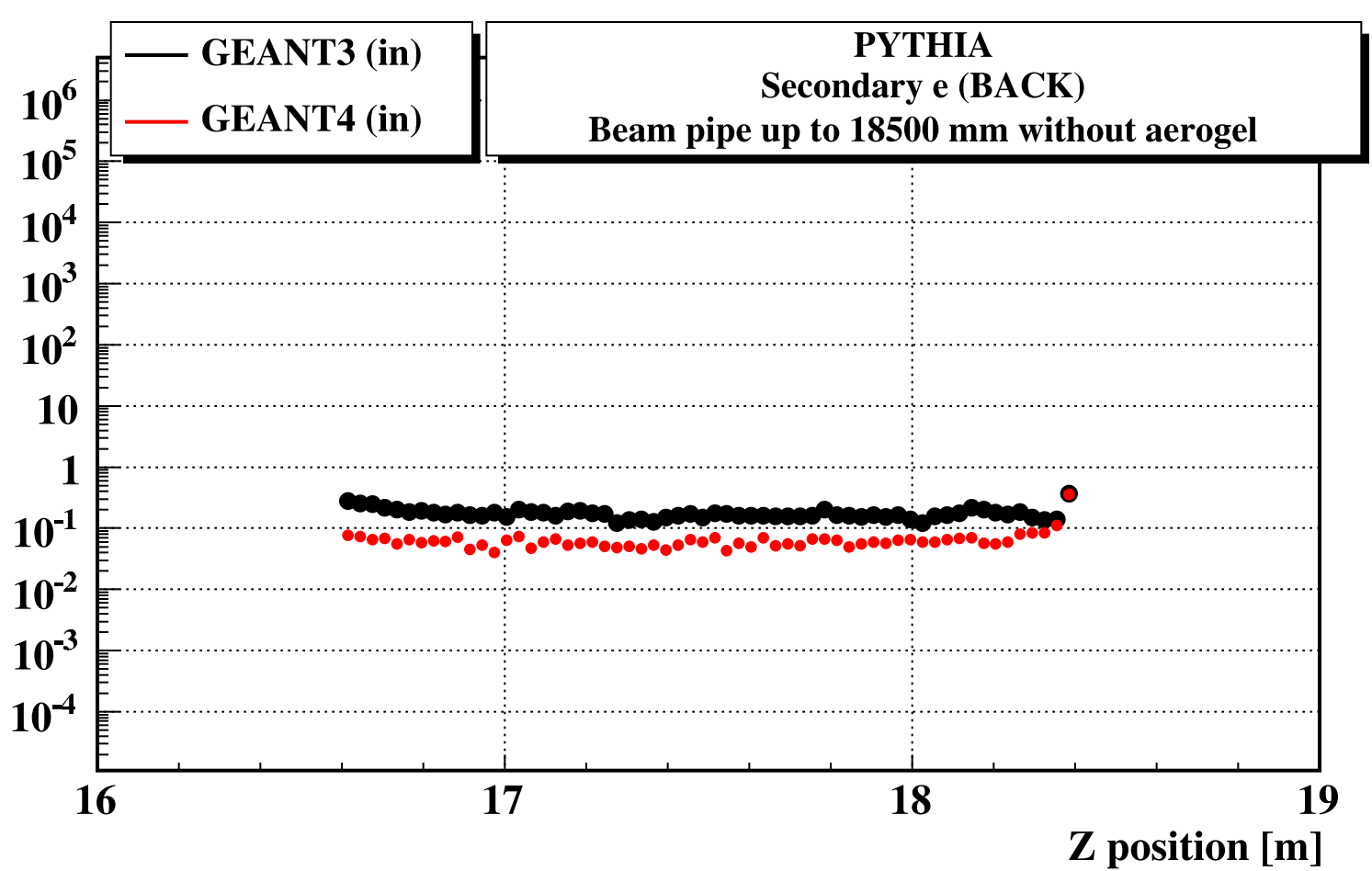

GEANT3 (in)
GEANT4 (in)
PYTHIA
Secondary π (SIDE)
Beam pipe up to 18500 mm without aerogel
10^6
10^5
10^4
10^3
10^2
10
1
10^-1
10^-2
10^-3
10^-4
16
17
18
19
Z position [m]

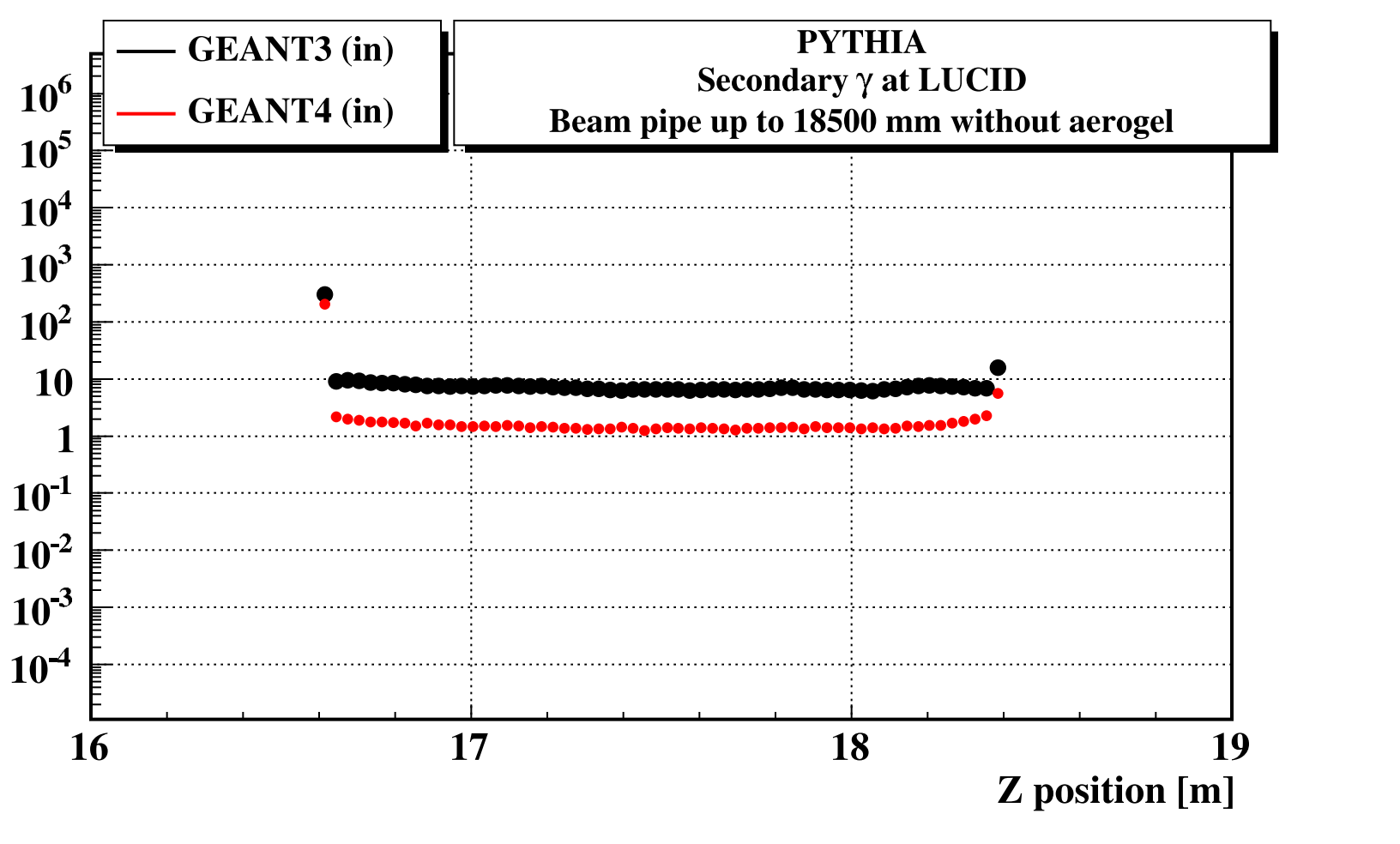

GEANT3 (in)
GEANT4 (in)
PYTHIA
Secondary π (BACK)
Beam pipe up to 18500 mm without aerogel
10^6
10^5
10^4
10^3
10^2
10
1
10^-1
10^-2
10^-3
10^-4
16
17
18
19
Z position [m]

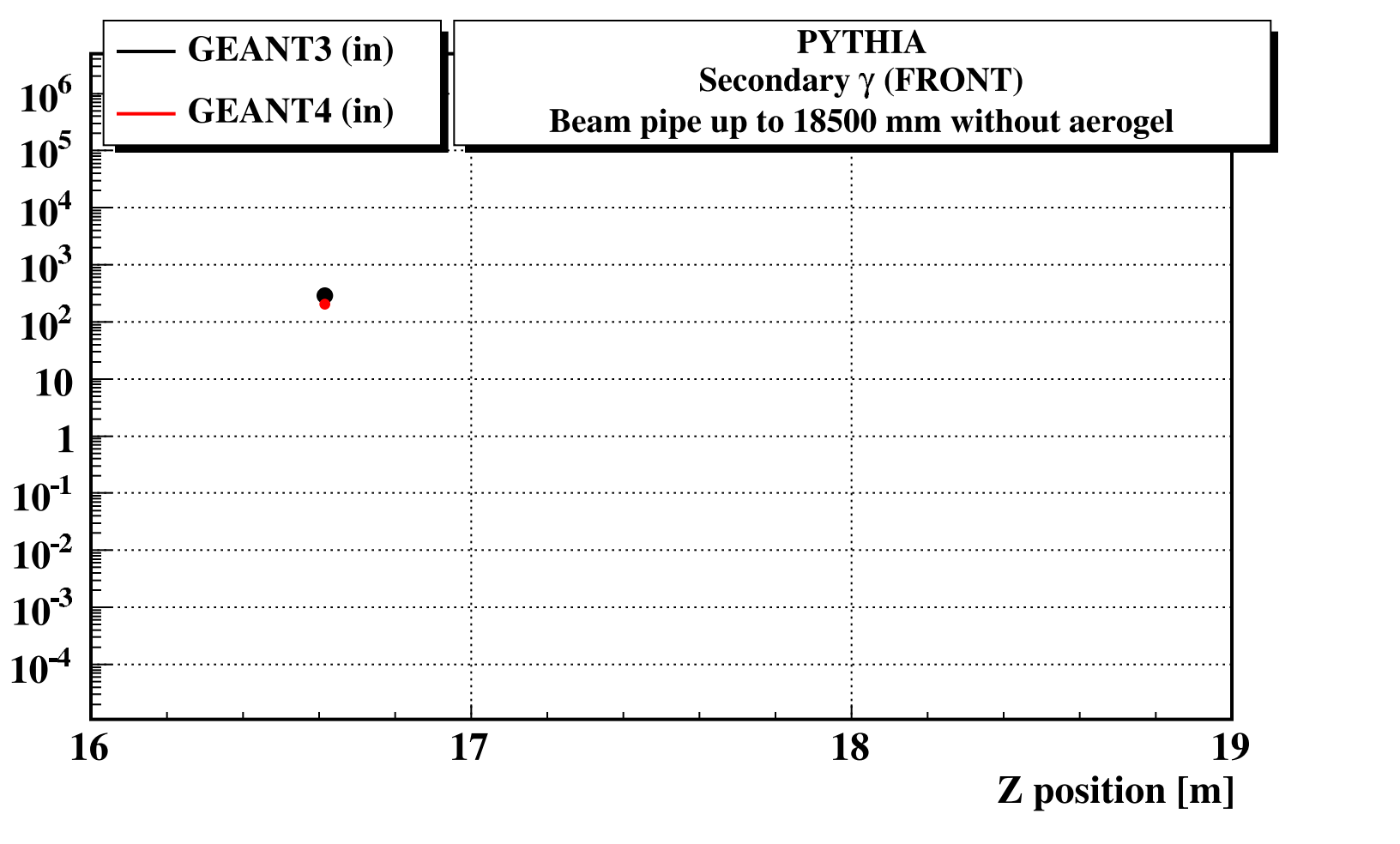

GEANT3 (in)
GEANT4 (in)
PYTHIA
Secondary e at LUCID
Beam pipe up to 18500 mm without aerogel
10^6
10^5
10^4
10^3
10^2
10
1
10^-1
10^-2
10^-3
10^-4
16
17
18
19
Z position [m]

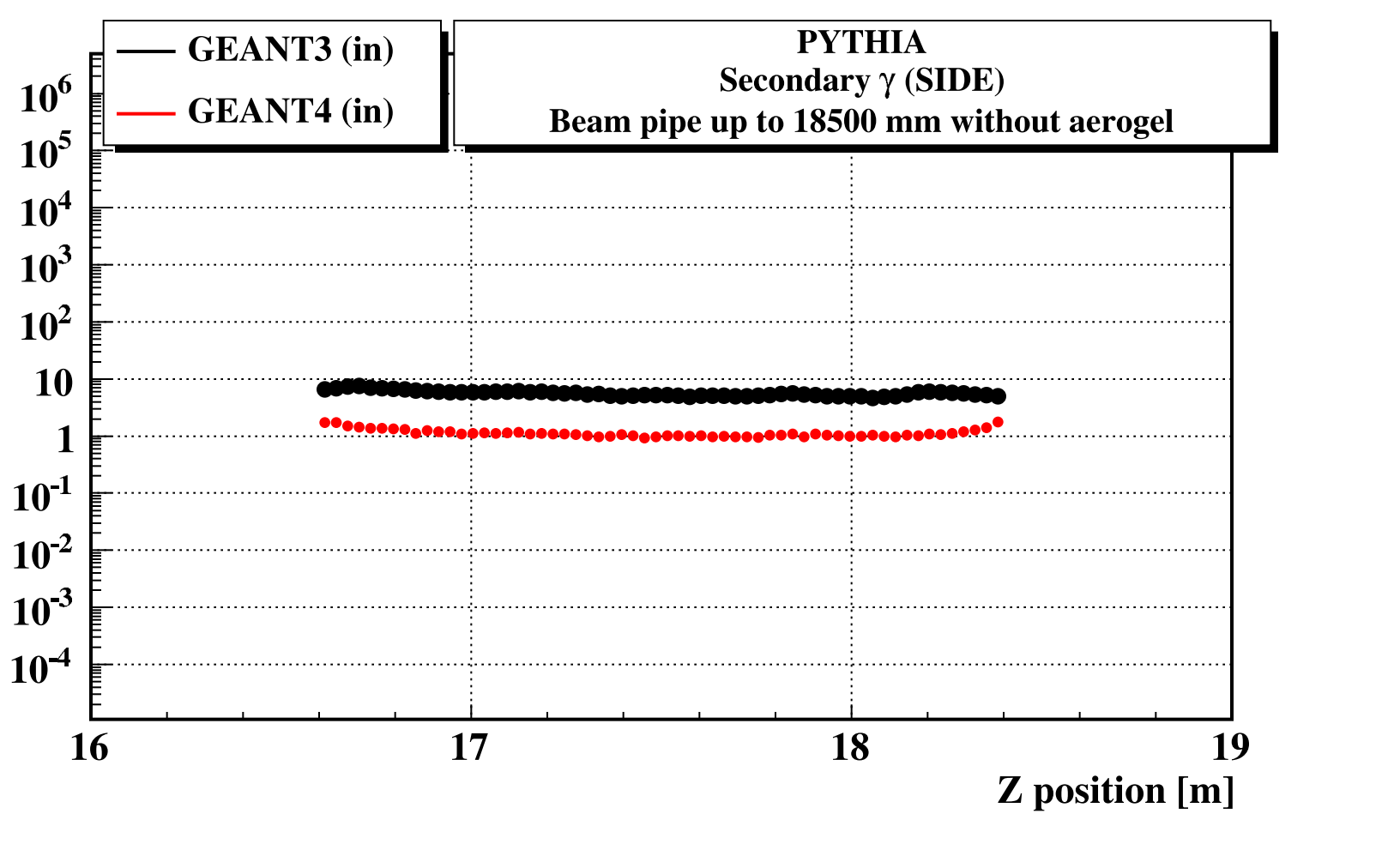

GEANT3 (in)
GEANT4 (in)
PYTHIA
Secondary e (FRONT)
Beam pipe up to 18500 mm without aerogel
10^6
10^5
10^4
10^3
10^2
10
1
10^-1
10^-2
10^-3
10^-4
16
17
18
19
Z position [m]

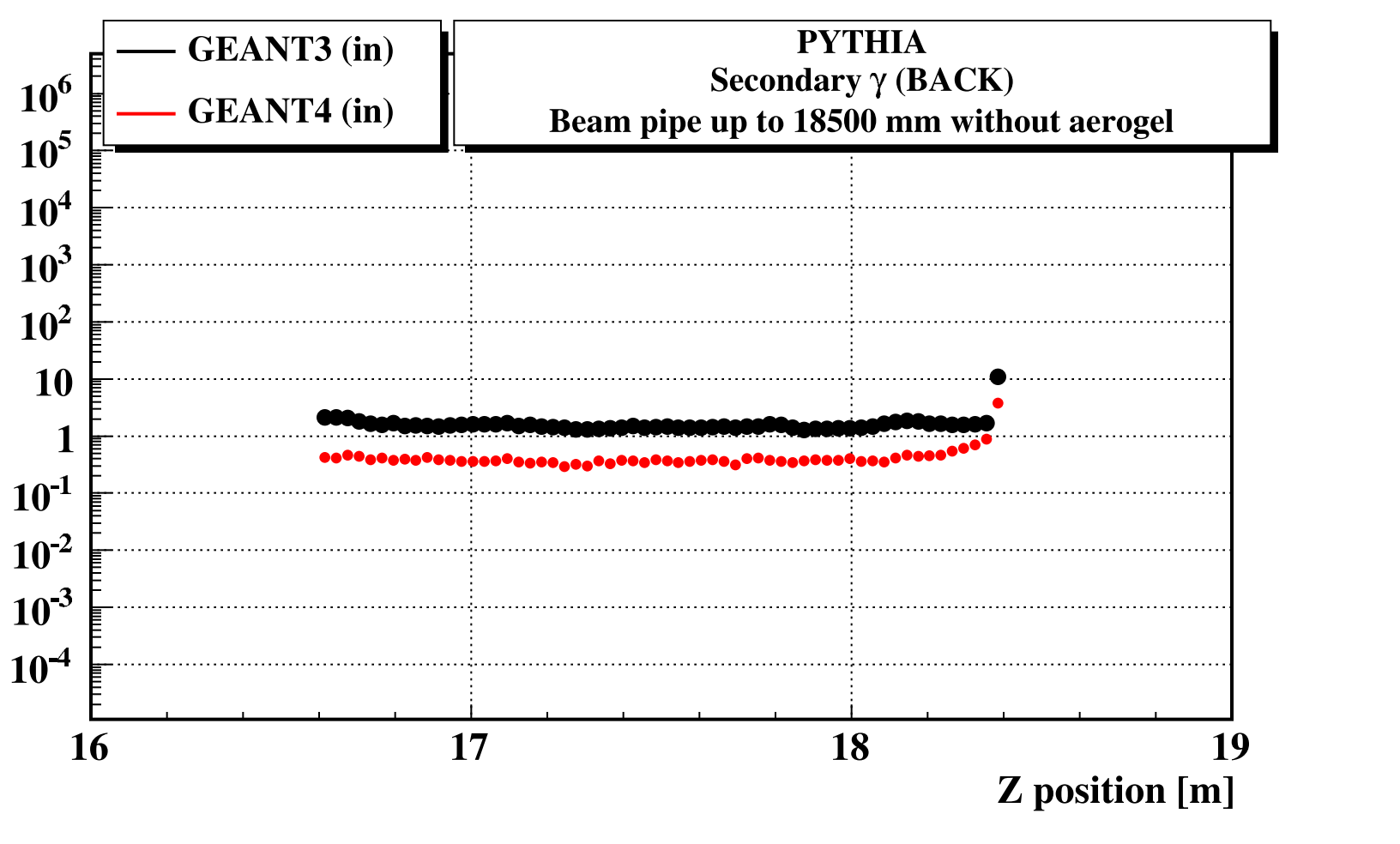

GEANT3 (in)
GEANT4 (in)
PYTHIA
Secondary e (SIDE)
Beam pipe up to 18500 mm without aerogel
10^6
10^5
10^4
10^3
10^2
10
1
10^-1
10^-2
10^-3
10^-4
16
17
18
19
Z position [m]

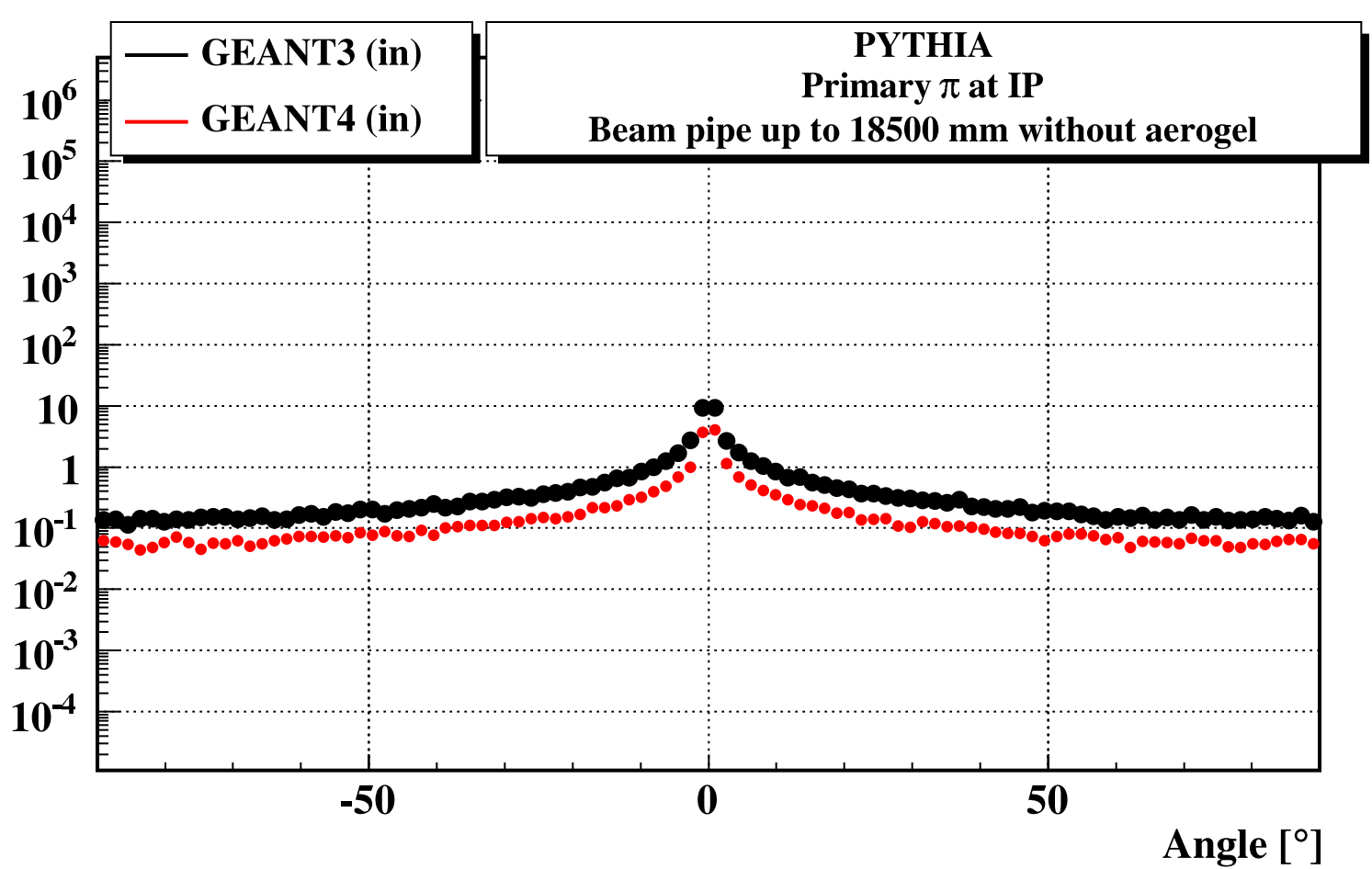

GEANT3 (in)
GEANT4 (in)
PYTHIA
Secondary e (BACK)
Beam pipe up to 18500 mm without aerogel
10^6
10^5
10^4
10^3
10^2
10
1
10^-1
10^-2
10^-3
10^-4
16
17
18
19
Z position [m]

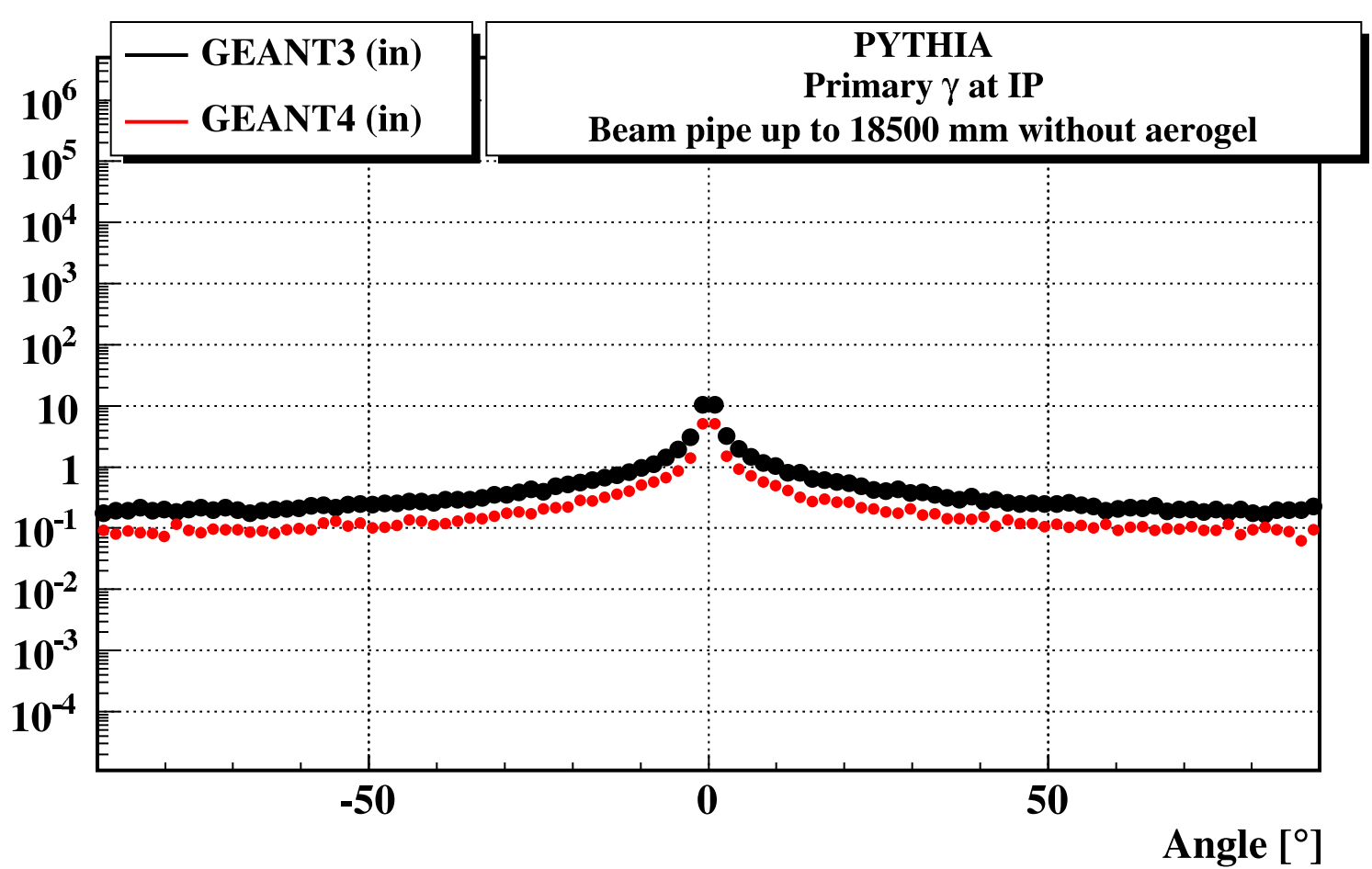

GEANT3 (in)
GEANT4 (in)
PYTHIA
Secondary γ at LUCID
Beam pipe up to 18500 mm without aerogel
10^6
10^5
10^4
10^3
10^2
10
1
10^-1
10^-2
10^-3
10^-4
16
17
18
19
Z position [m]

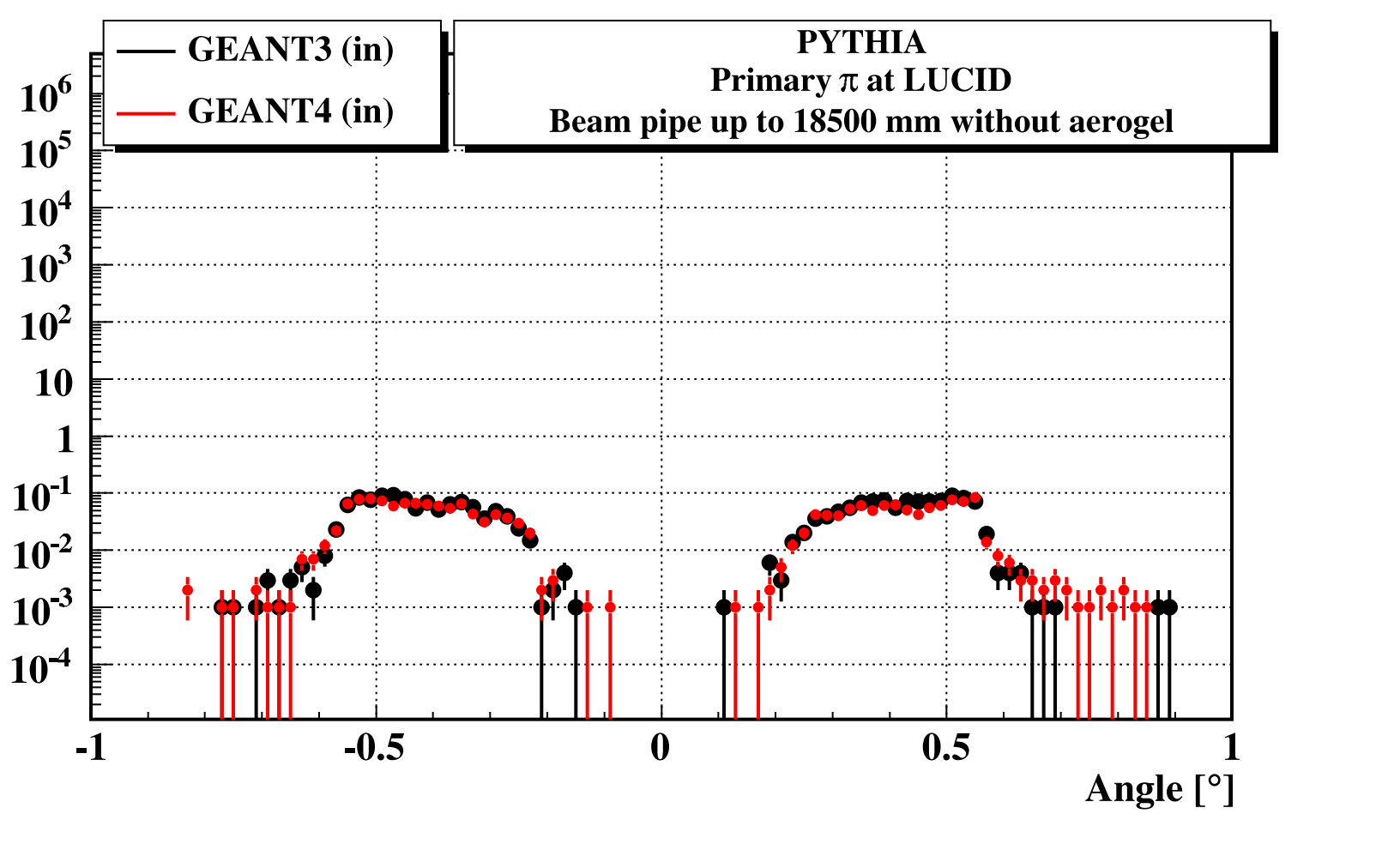

GEANT3 (in)
GEANT4 (in)
PYTHIA
Secondary γ (FRONT)
Beam pipe up to 18500 mm without aerogel
10^6
10^5
10^4
10^3
10^2
10
1
10^-1
10^-2
10^-3
10^-4
16
17
18
19
Z position [m]

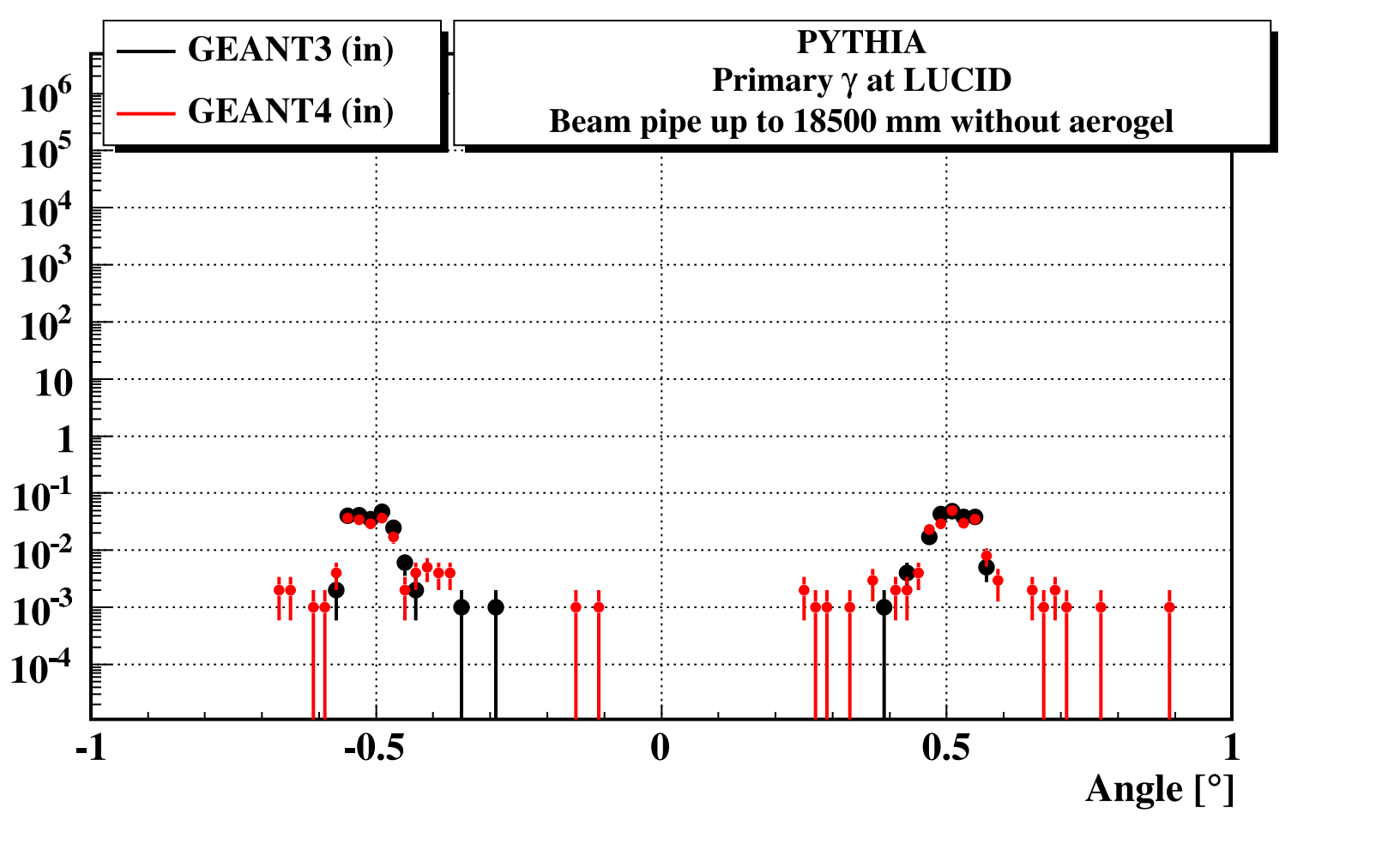

GEANT3 (in)
GEANT4 (in)
PYTHIA
Secondary γ (SIDE)
Beam pipe up to 18500 mm without aerogel
10^6
10^5
10^4
10^3
10^2
10
1
10^-1
10^-2
10^-3
10^-4
16
17
18
19
Z position [m]

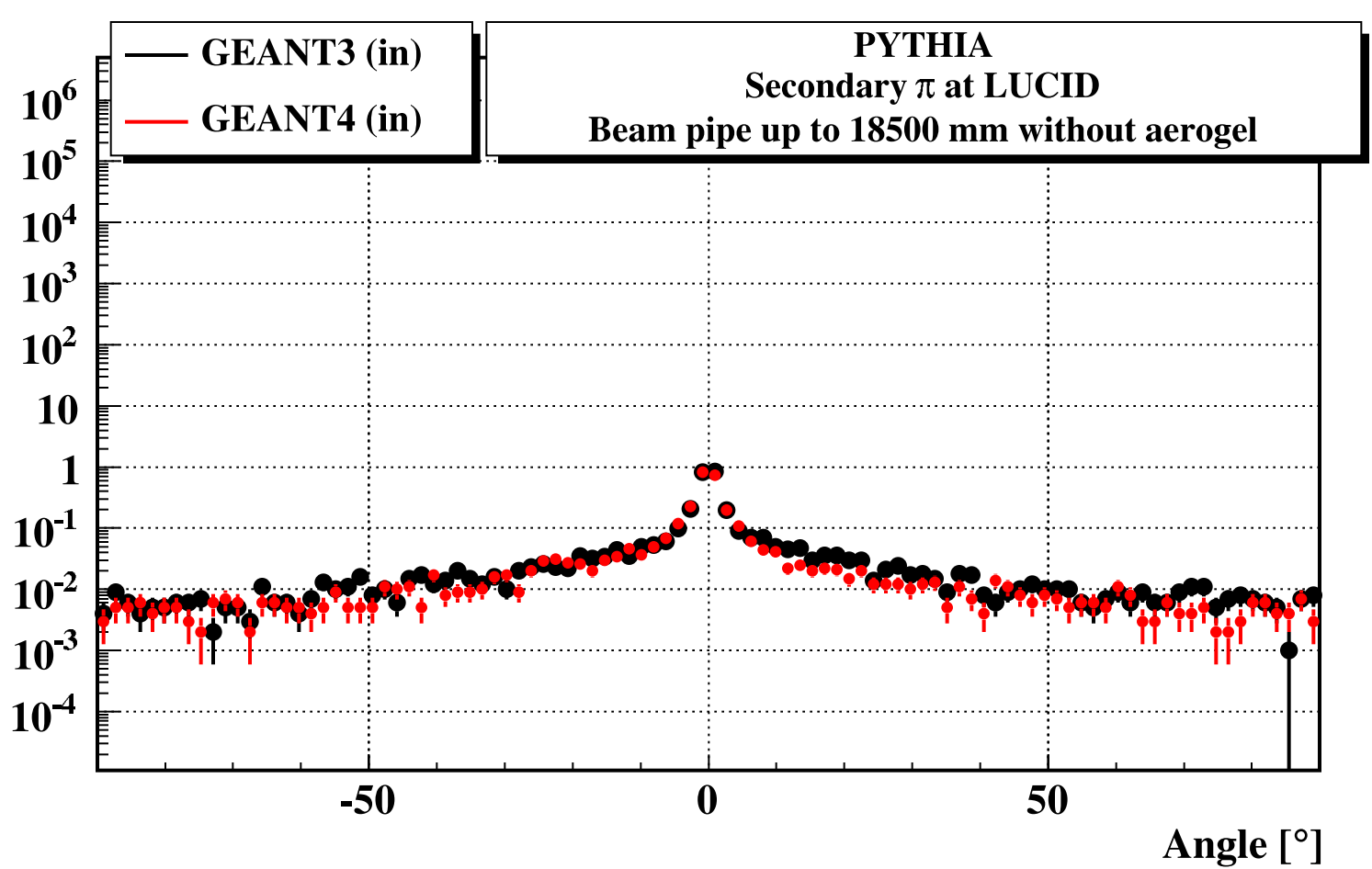

GEANT3 (in)
GEANT4 (in)
PYTHIA
Secondary γ (BACK)
Beam pipe up to 18500 mm without aerogel
10^6
10^5
10^4
10^3
10^2
10
1
10^-1
10^-2
10^-3
10^-4
16
17
18
19
Z position [m]

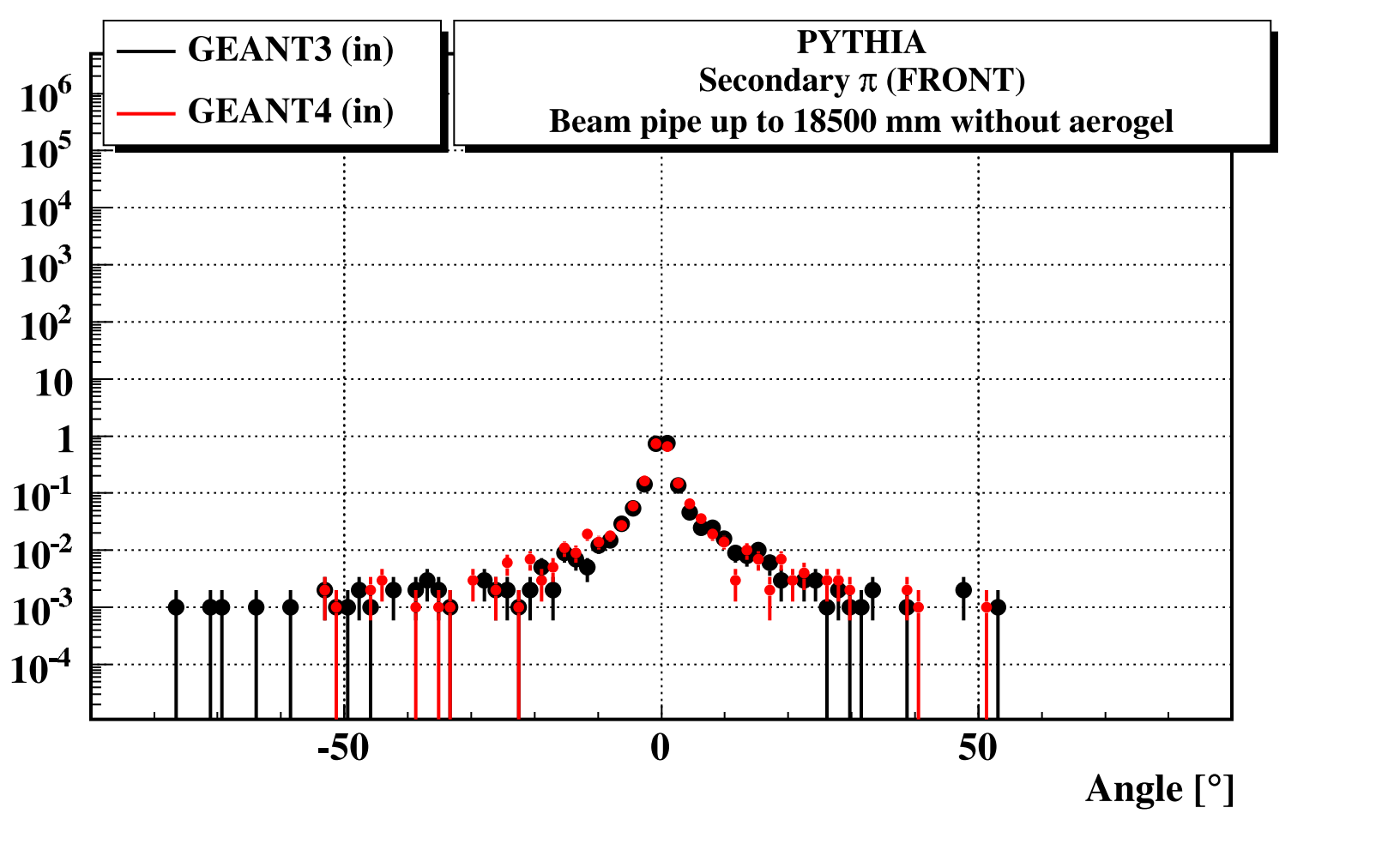

GEANT3 (in)
GEANT4 (in)
PYTHIA
Primary π at IP
Beam pipe up to 18500 mm without aerogel
10^6
10^5
10^4
10^3
10^2
10
1
10^-1
10^-2
10^-3
10^-4
-50
0
50
Angle [°]

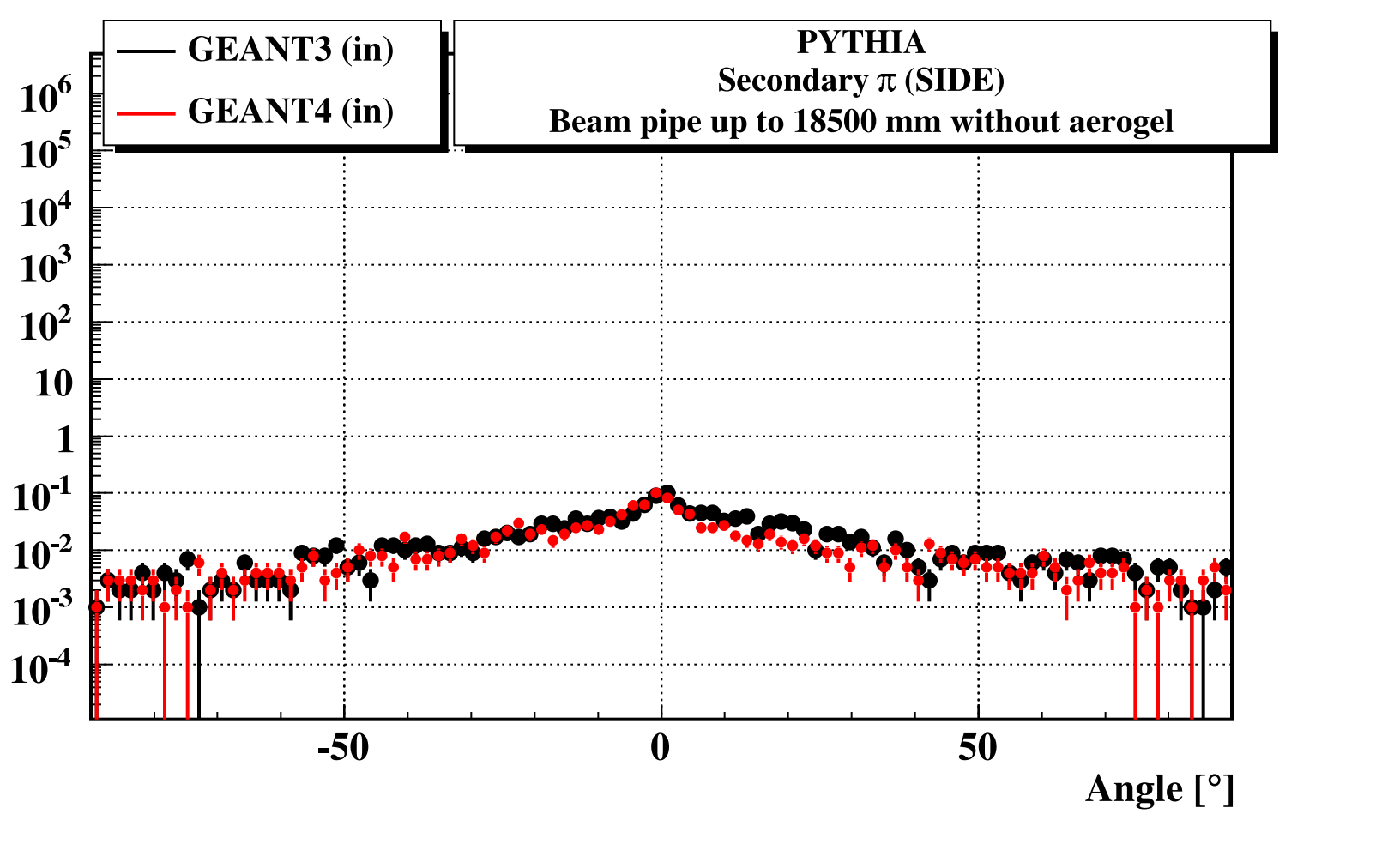

GEANT3 (in)
GEANT4 (in)
PYTHIA
Primary γ at IP
Beam pipe up to 18500 mm without aerogel
10^6
10^5
10^4
10^3
10^2
10
1
10^-1
10^-2
10^-3
10^-4
-50
0
50
Angle [°]

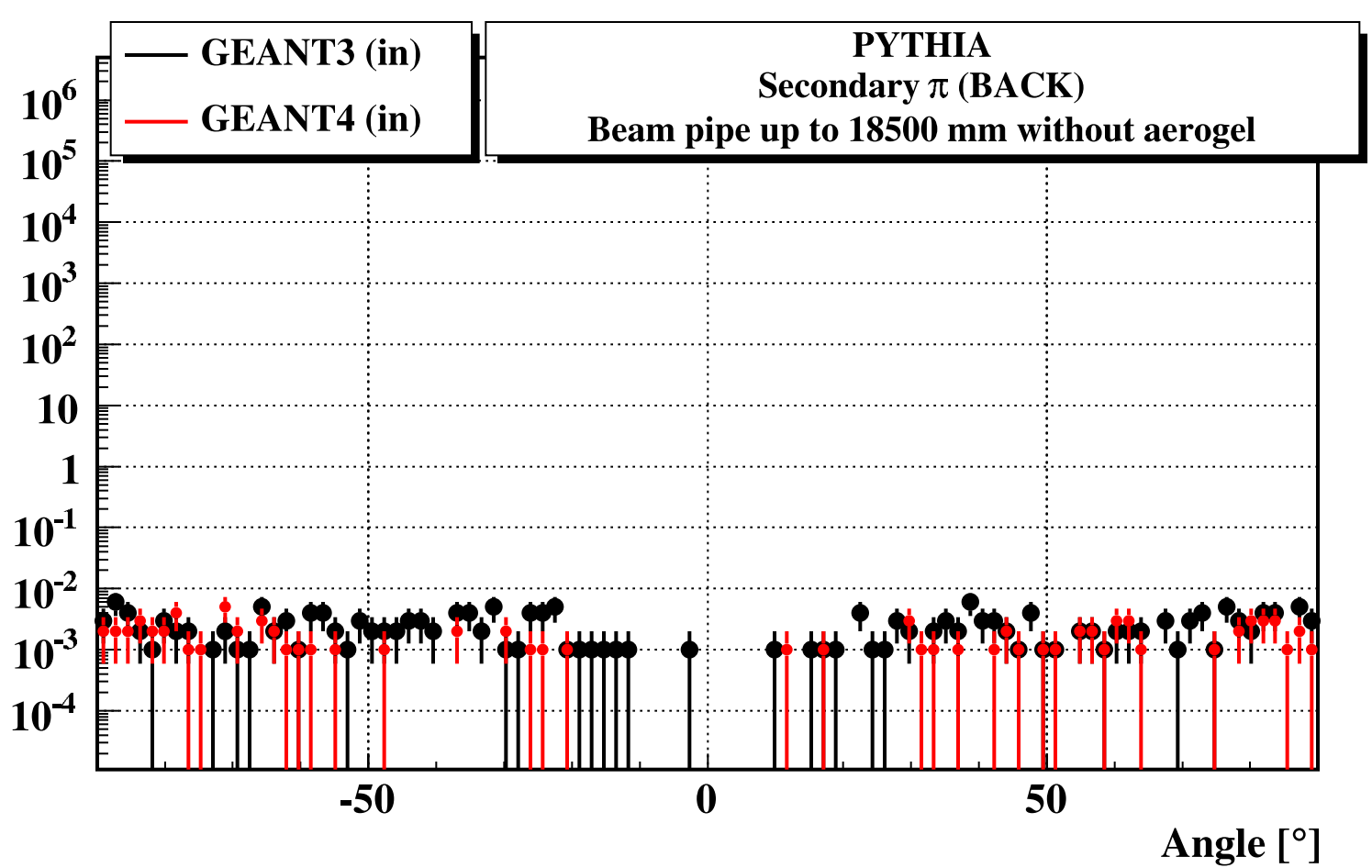

GEANT3 (in)
GEANT4 (in)
PYTHIA
Primary π at LUCID
Beam pipe up to 18500 mm without aerogel
10^6
10^5
10^4
10^3
10^2
10
1
10^-1
10^-2
10^-3
10^-4
-1
-0.5
0
0.5
1
Angle [°]

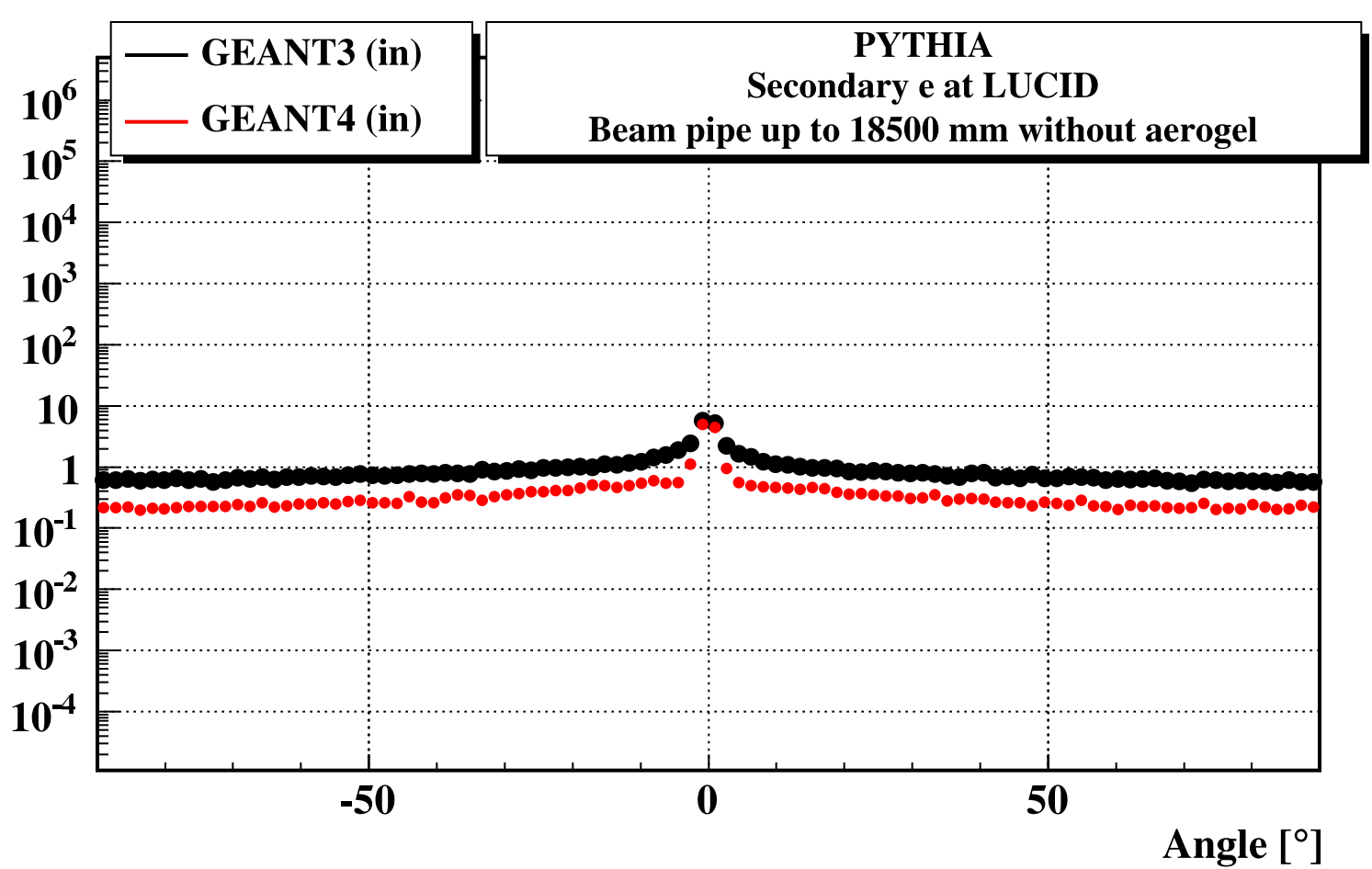

GEANT3 (in)
GEANT4 (in)
PYTHIA
Primary γ at LUCID
Beam pipe up to 18500 mm without aerogel
10^6
10^5
10^4
10^3
10^2
10
1
10^-1
10^-2
10^-3
10^-4
-1
-0.5
0
0.5
1
Angle [°]

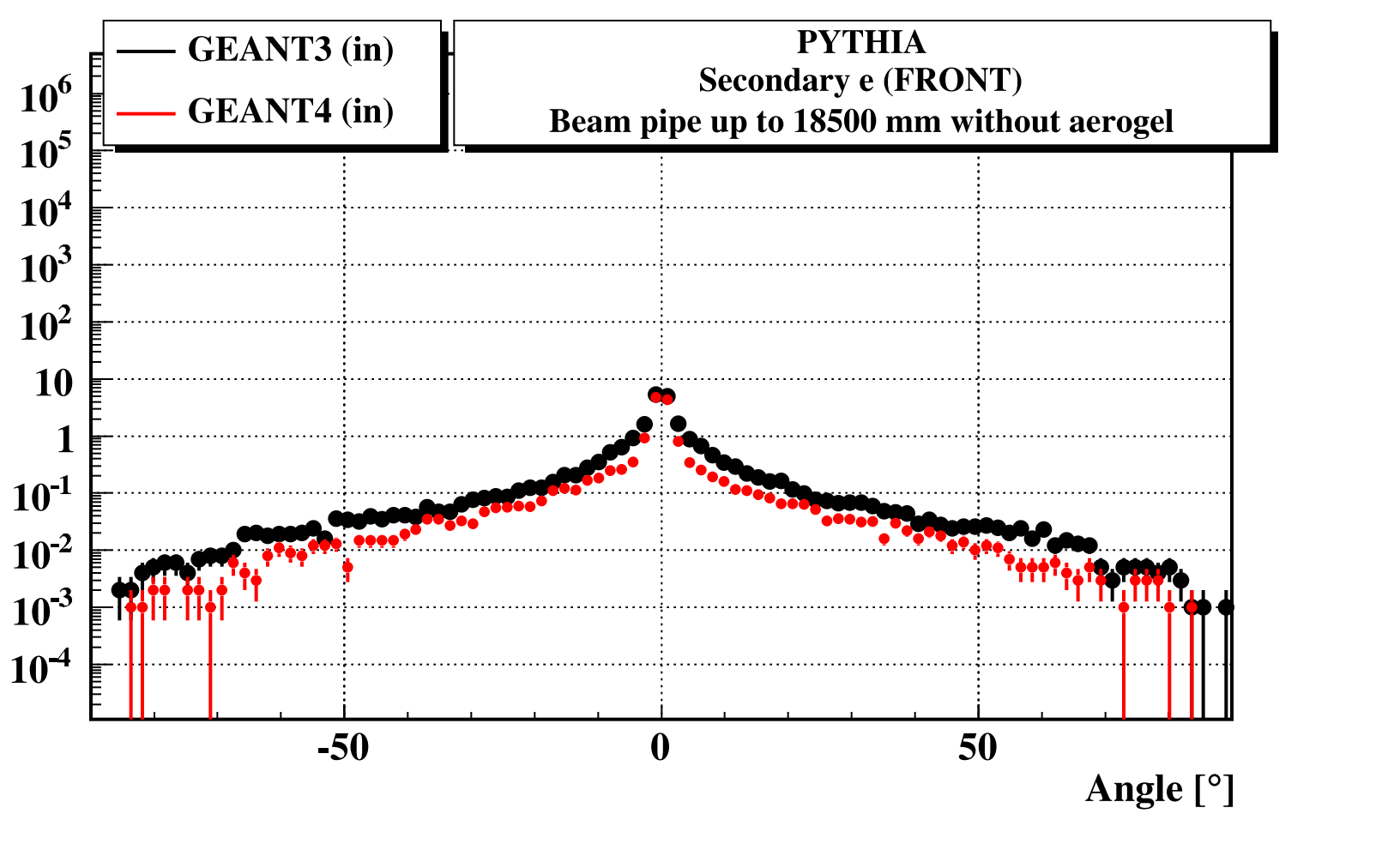

GEANT3 (in)
GEANT4 (in)
PYTHIA
Secondary π at LUCID
Beam pipe up to 18500 mm without aerogel
10^6
10^5
10^4
10^3
10^2
10
1
10^-1
10^-2
10^-3
10^-4
-50
0
50
Angle [°]

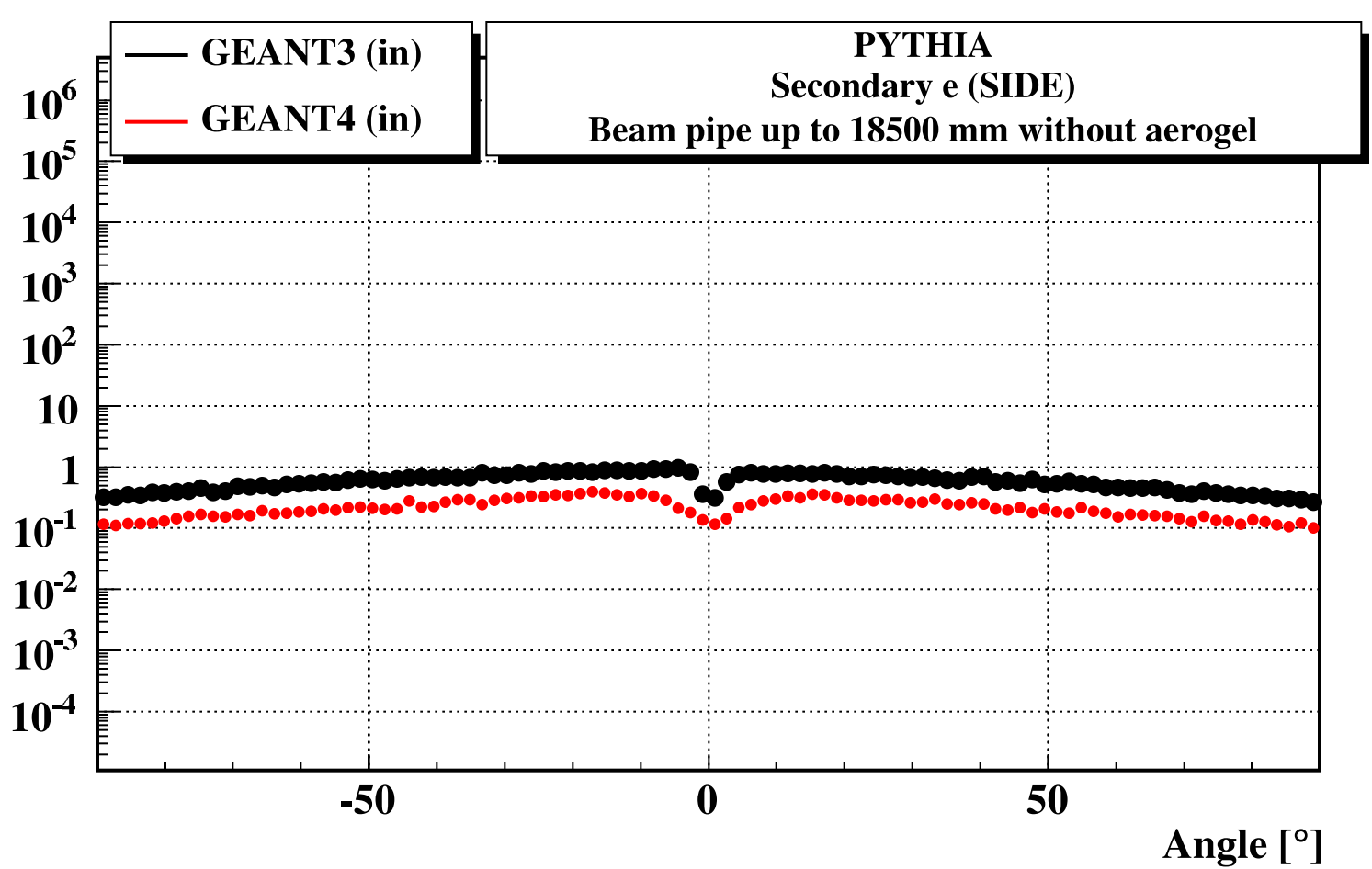

GEANT3 (in)
GEANT4 (in)
PYTHIA
Secondary π (FRONT)
Beam pipe up to 18500 mm without aerogel
10^6
10^5
10^4
10^3
10^2
10
1
10^-1
10^-2
10^-3
10^-4
-50
0
50
Angle [°]

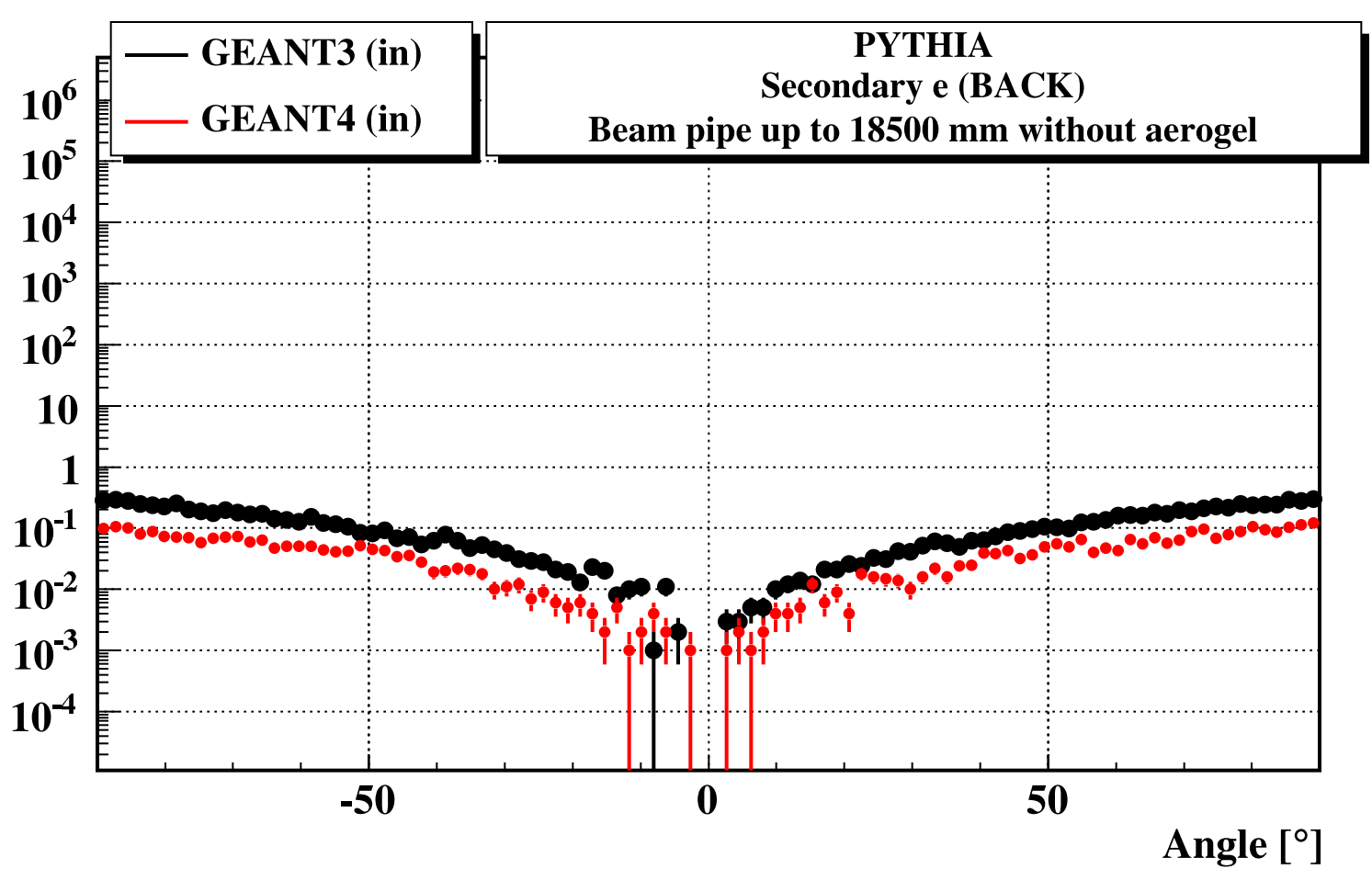

GEANT3 (in)
GEANT4 (in)
PYTHIA
Secondary π (SIDE)
Beam pipe up to 18500 mm without aerogel
10^6
10^5
10^4
10^3
10^2
10
1
10^-1
10^-2
10^-3
10^-4
-50
0
50
Angle [°]

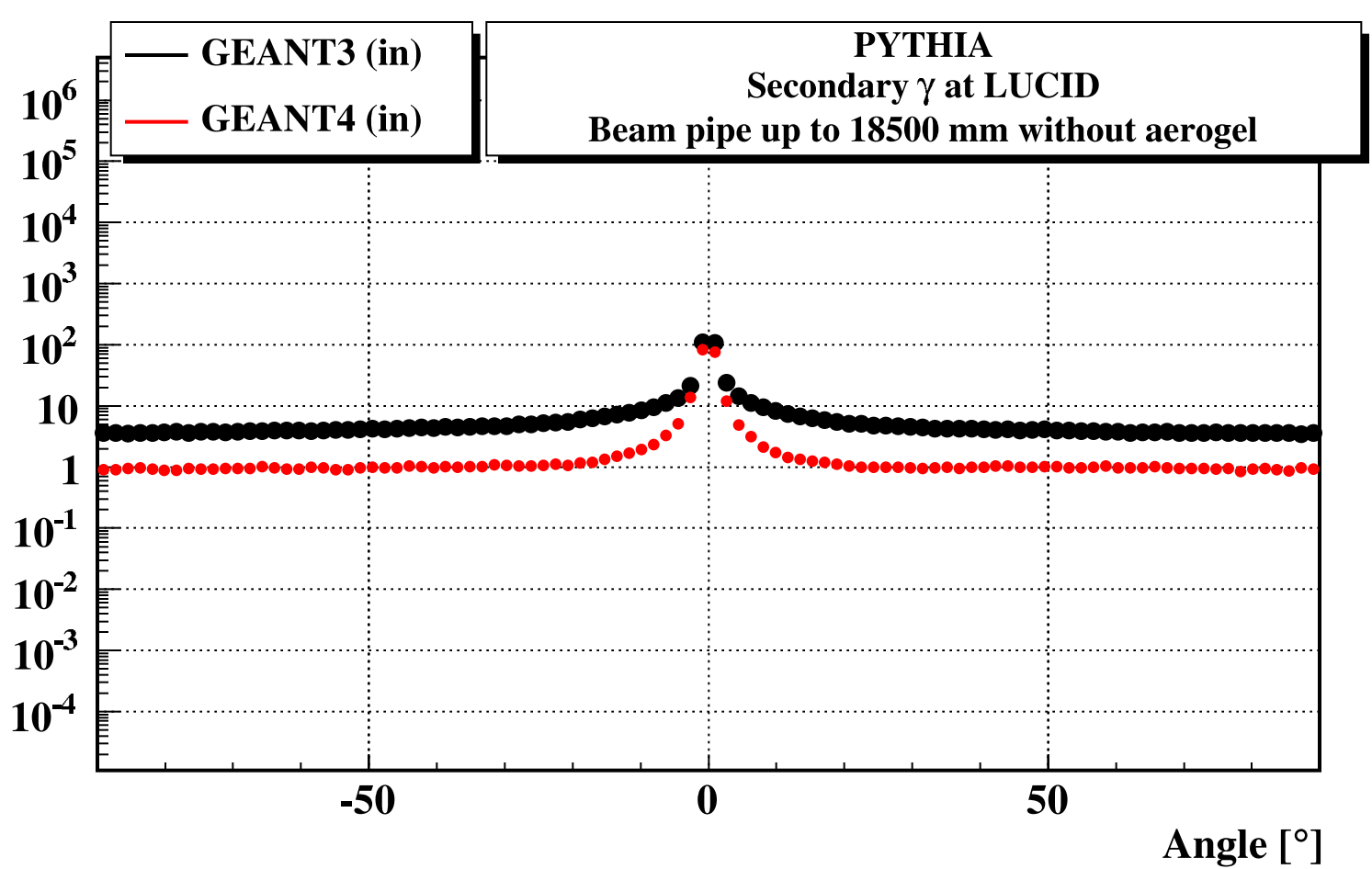

GEANT3 (in)
GEANT4 (in)
PYTHIA
Secondary π (BACK)
Beam pipe up to 18500 mm without aerogel
10^6
10^5
10^4
10^3
10^2
10
1
10^-1
10^-2
10^-3
10^-4
-50
0
50
Angle [°]

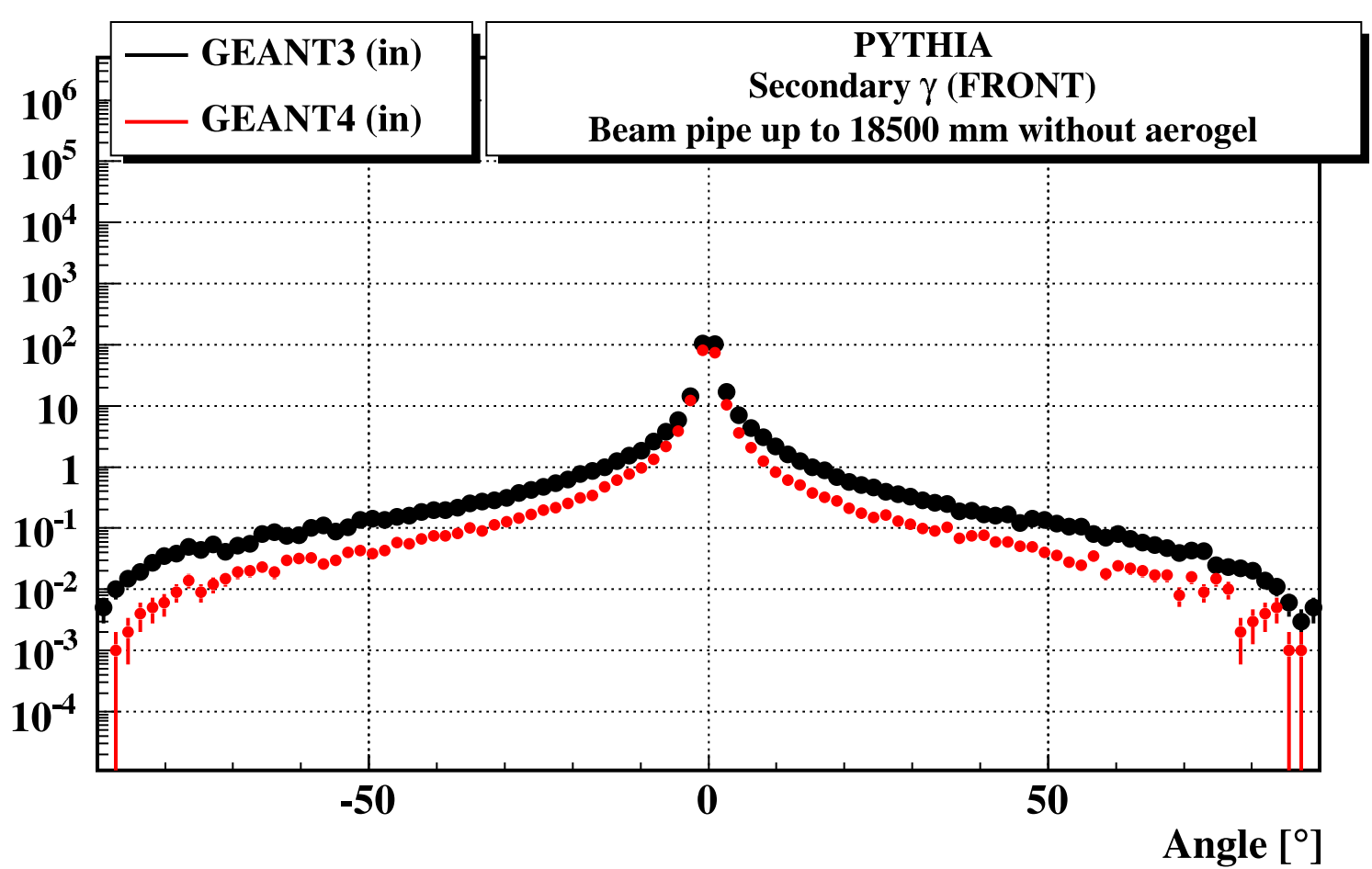

GEANT3 (in)
GEANT4 (in)
PYTHIA
Secondary e at LUCID
Beam pipe up to 18500 mm without aerogel
10^6
10^5
10^4
10^3
10^2
10
1
10^-1
10^-2
10^-3
10^-4
-50
0
50
Angle [°]

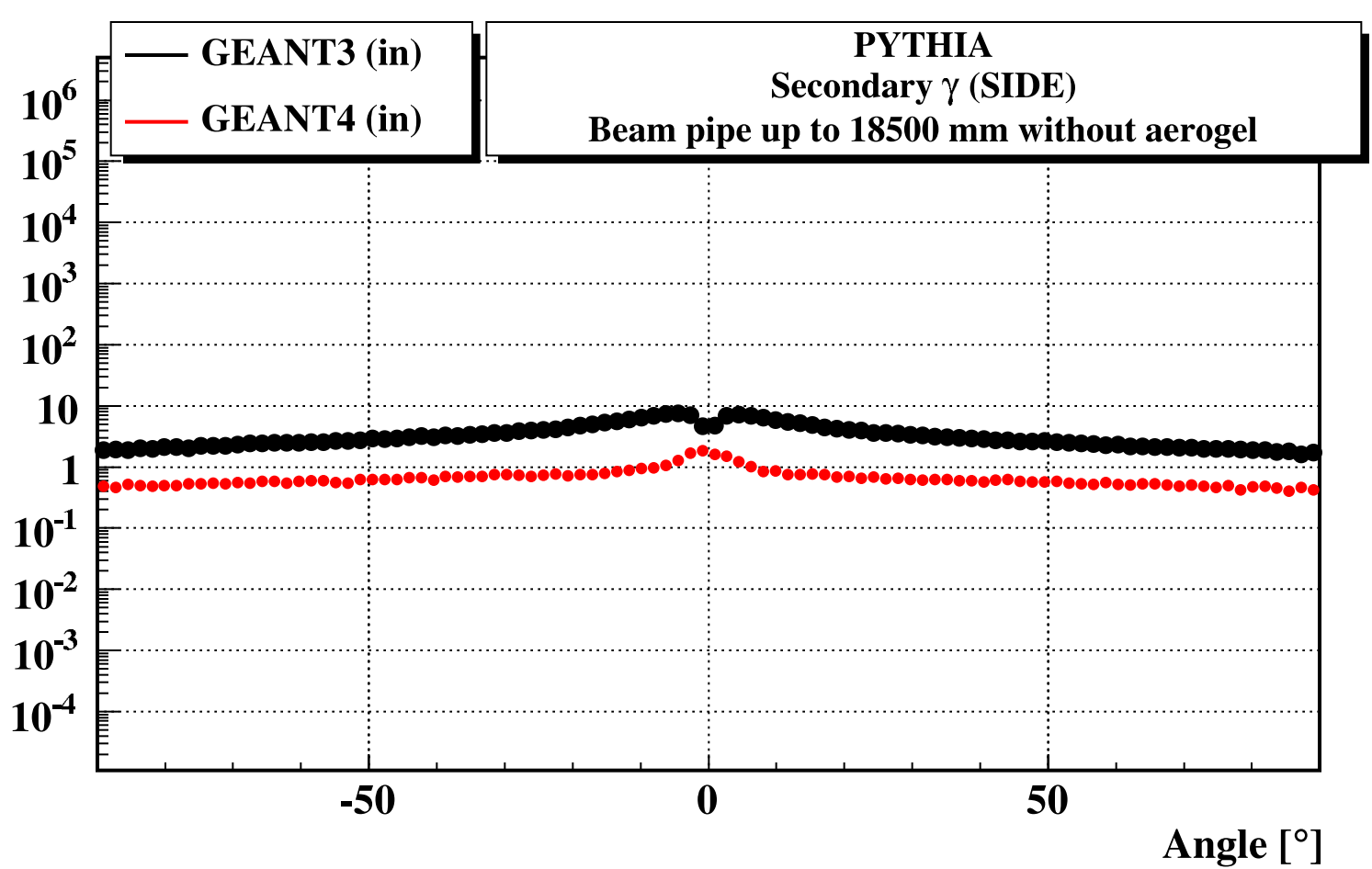

GEANT3 (in)
GEANT4 (in)
PYTHIA
Secondary e (FRONT)
Beam pipe up to 18500 mm without aerogel
10^6
10^5
10^4
10^3
10^2
10
1
10^-1
10^-2
10^-3
10^-4
-50
0
50
Angle [°]

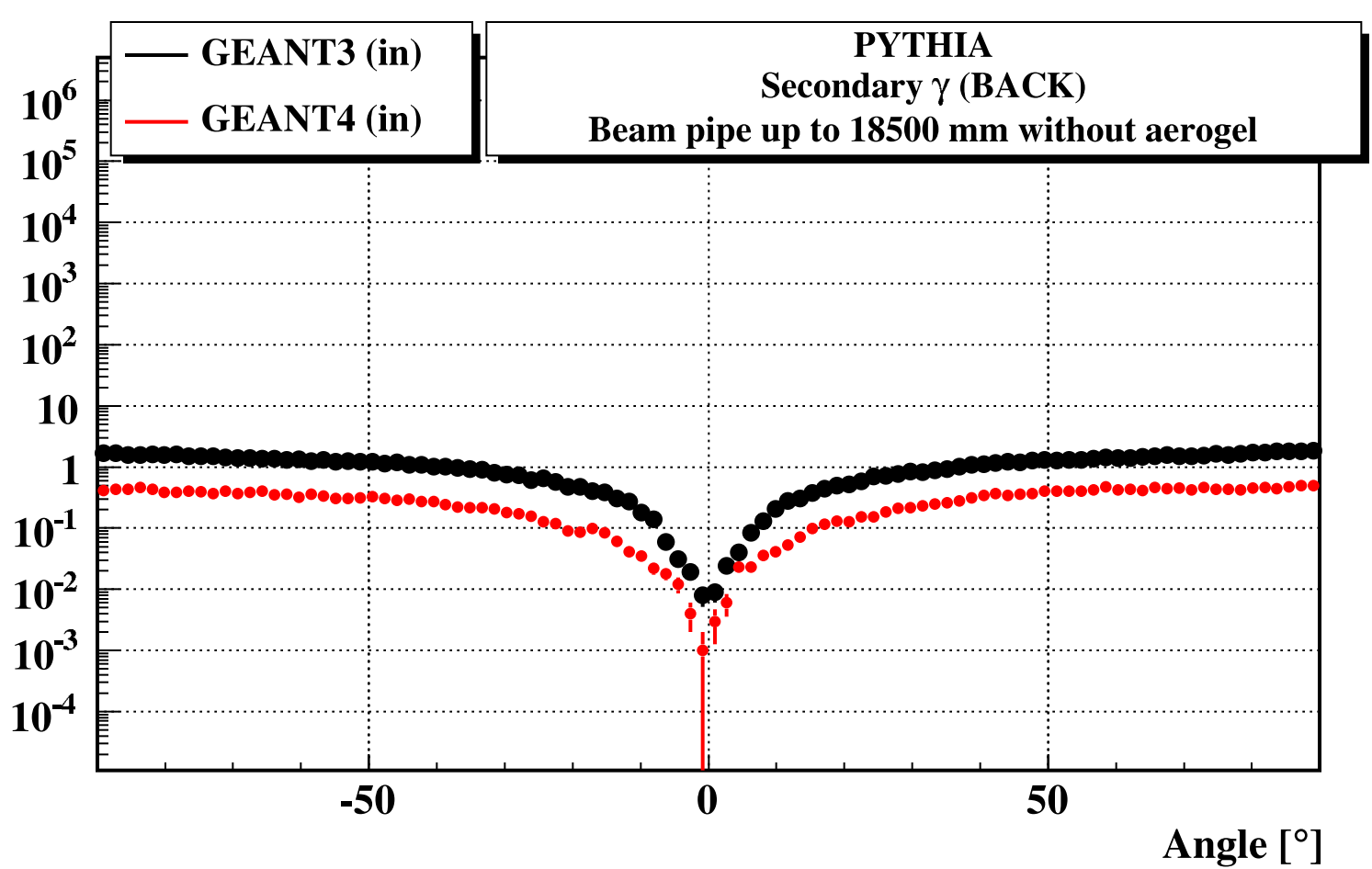

GEANT3 (in)
GEANT4 (in)
PYTHIA
Secondary e (SIDE)
Beam pipe up to 18500 mm without aerogel
10^6
10^5
10^4
10^3
10^2
10
1
10^-1
10^-2
10^-3
10^-4
-50
0
50
Angle [°]

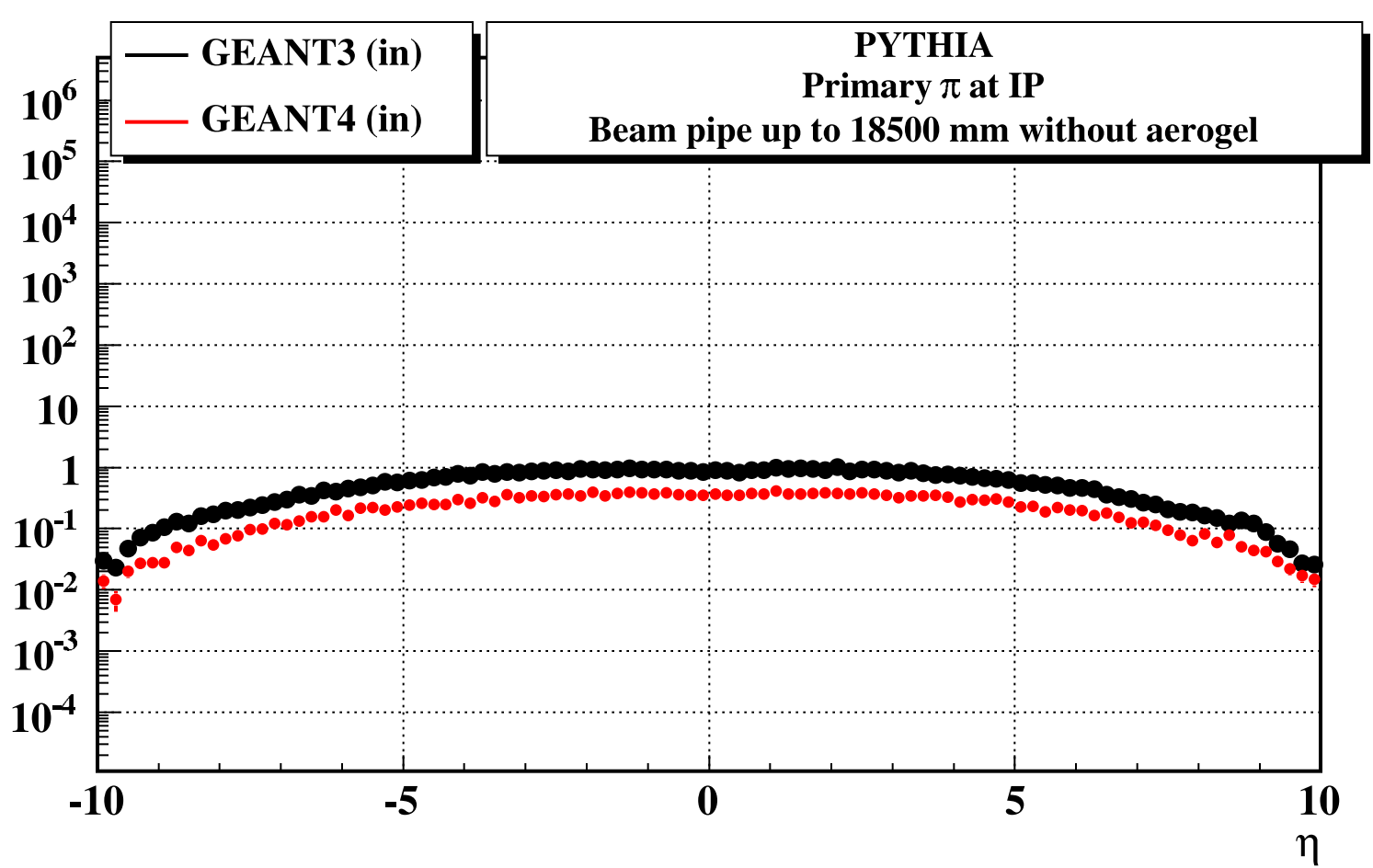

GEANT3 (in)
GEANT4 (in)
PYTHIA
Secondary e (BACK)
Beam pipe up to 18500 mm without aerogel
10^6
10^5
10^4
10^3
10^2
10
1
10^-1
10^-2
10^-3
10^-4
-50
0
50
Angle [°]

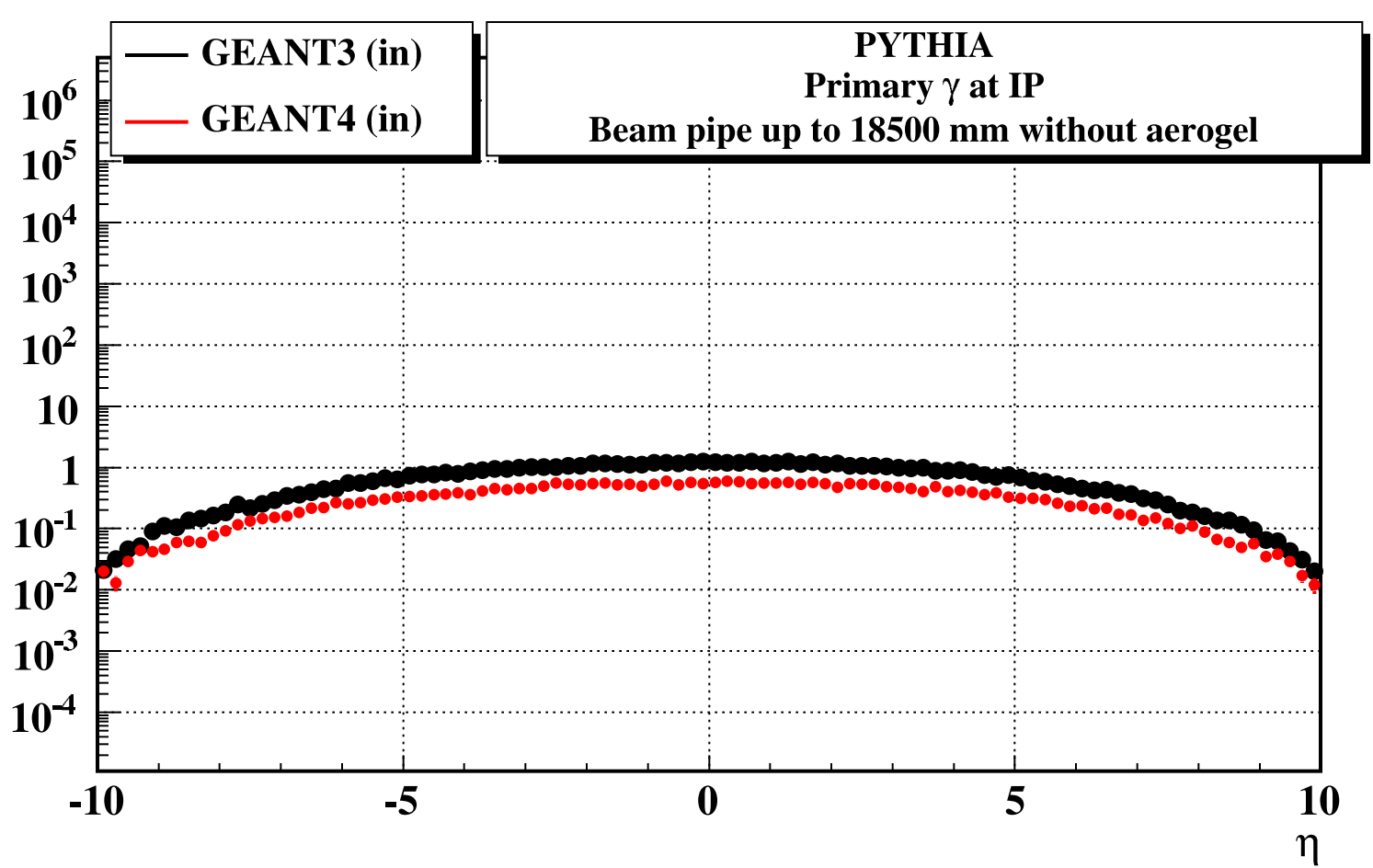

GEANT3 (in)
GEANT4 (in)
PYTHIA
Secondary γ at LUCID
Beam pipe up to 18500 mm without aerogel
10^6
10^5
10^4
10^3
10^2
10
1
10^-1
10^-2
10^-3
10^-4
-50
0
50
Angle [°]

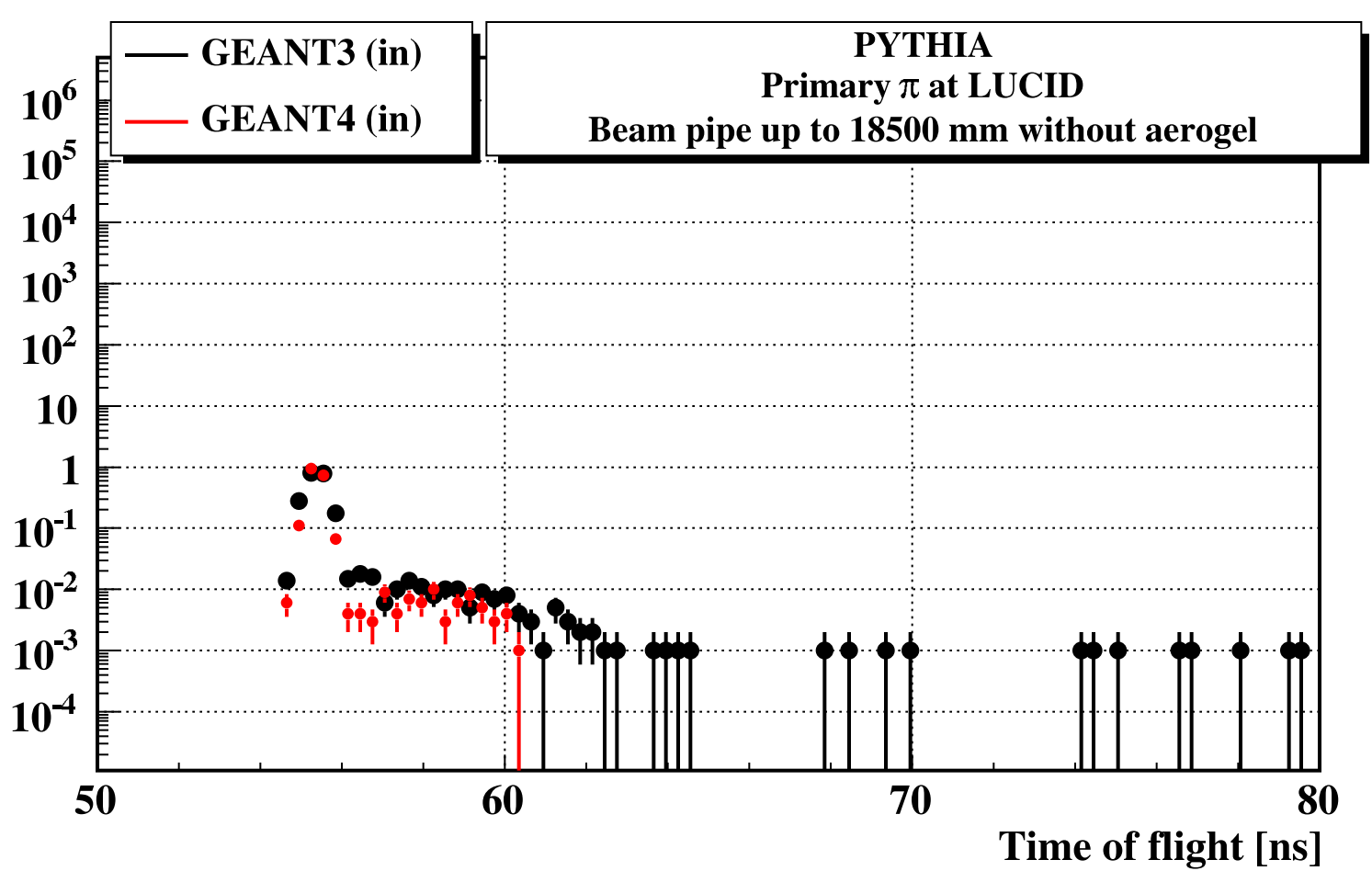

GEANT3 (in)
GEANT4 (in)
PYTHIA
Secondary γ (FRONT)
Beam pipe up to 18500 mm without aerogel
10^6
10^5
10^4
10^3
10^2
10
1
10^-1
10^-2
10^-3
10^-4
-50
0
50
Angle [°]

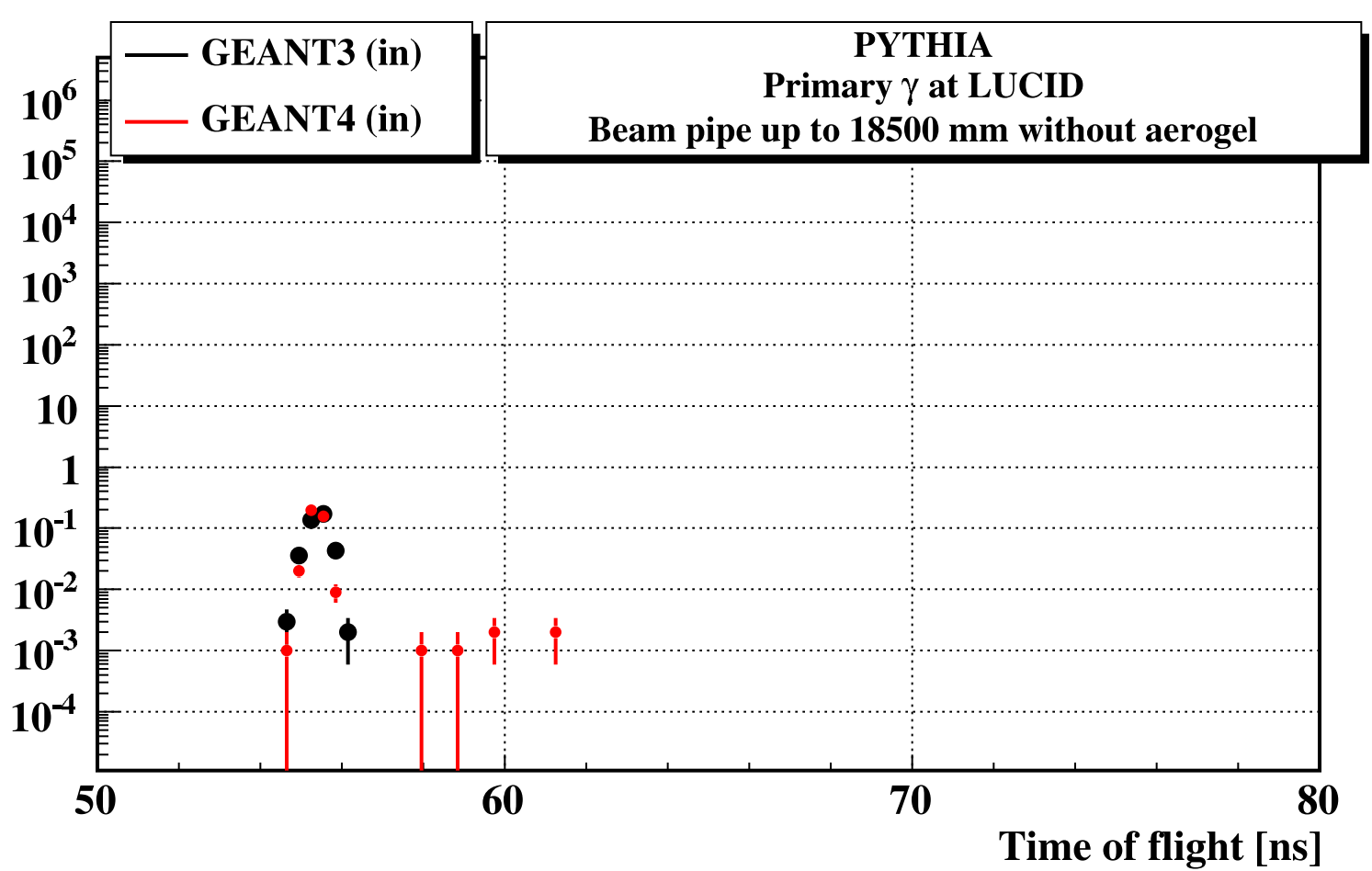

GEANT3 (in)
GEANT4 (in)
PYTHIA
Secondary γ (SIDE)
Beam pipe up to 18500 mm without aerogel
10^6
10^5
10^4
10^3
10^2
10
1
10^-1
10^-2
10^-3
10^-4
-50
0
50
Angle [°]

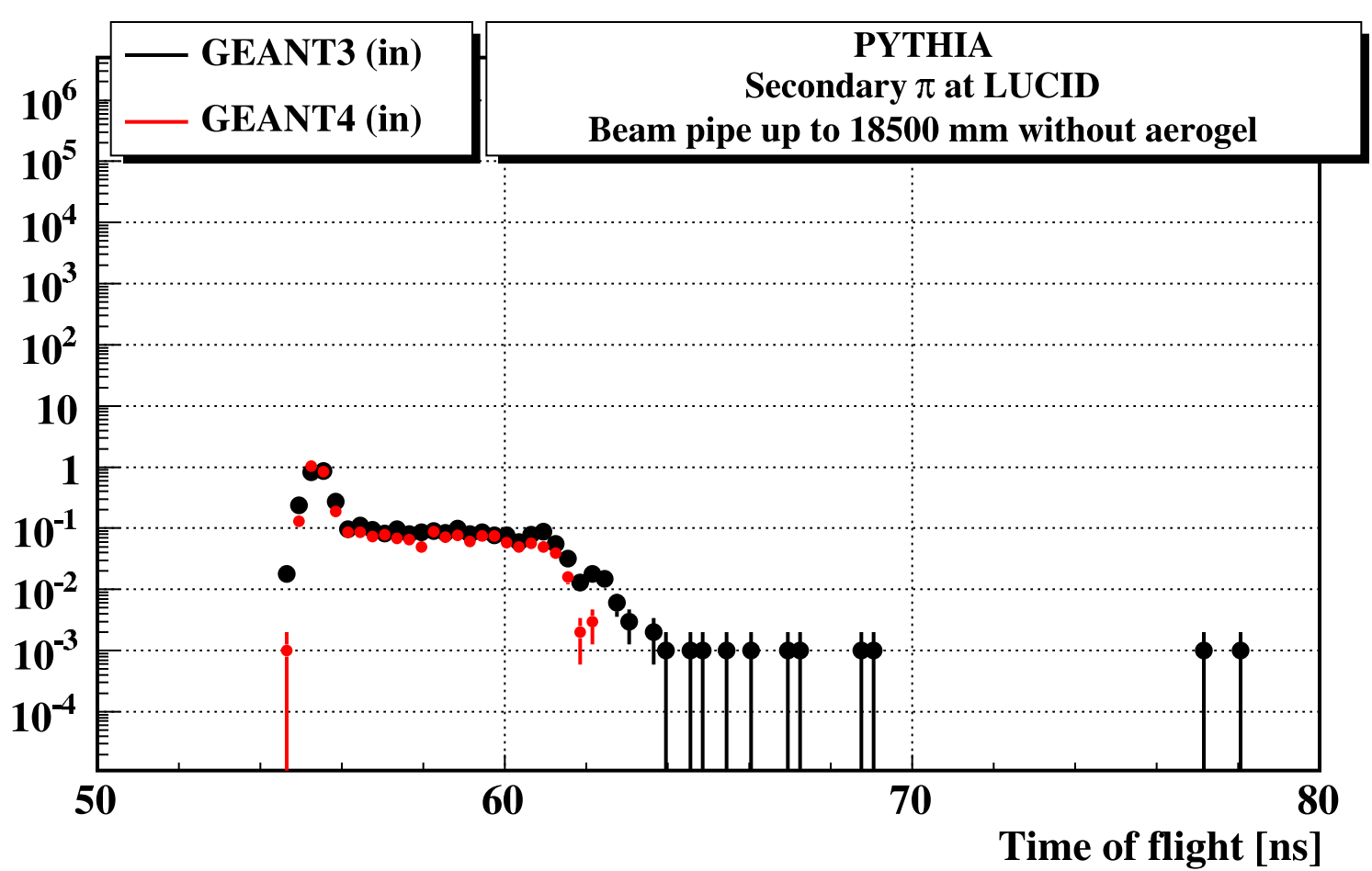

GEANT3 (in)
GEANT4 (in)
PYTHIA
Secondary γ (BACK)
Beam pipe up to 18500 mm without aerogel
10^6
10^5
10^4
10^3
10^2
10
1
10^-1
10^-2
10^-3
10^-4
-50
0
50
Angle [°]

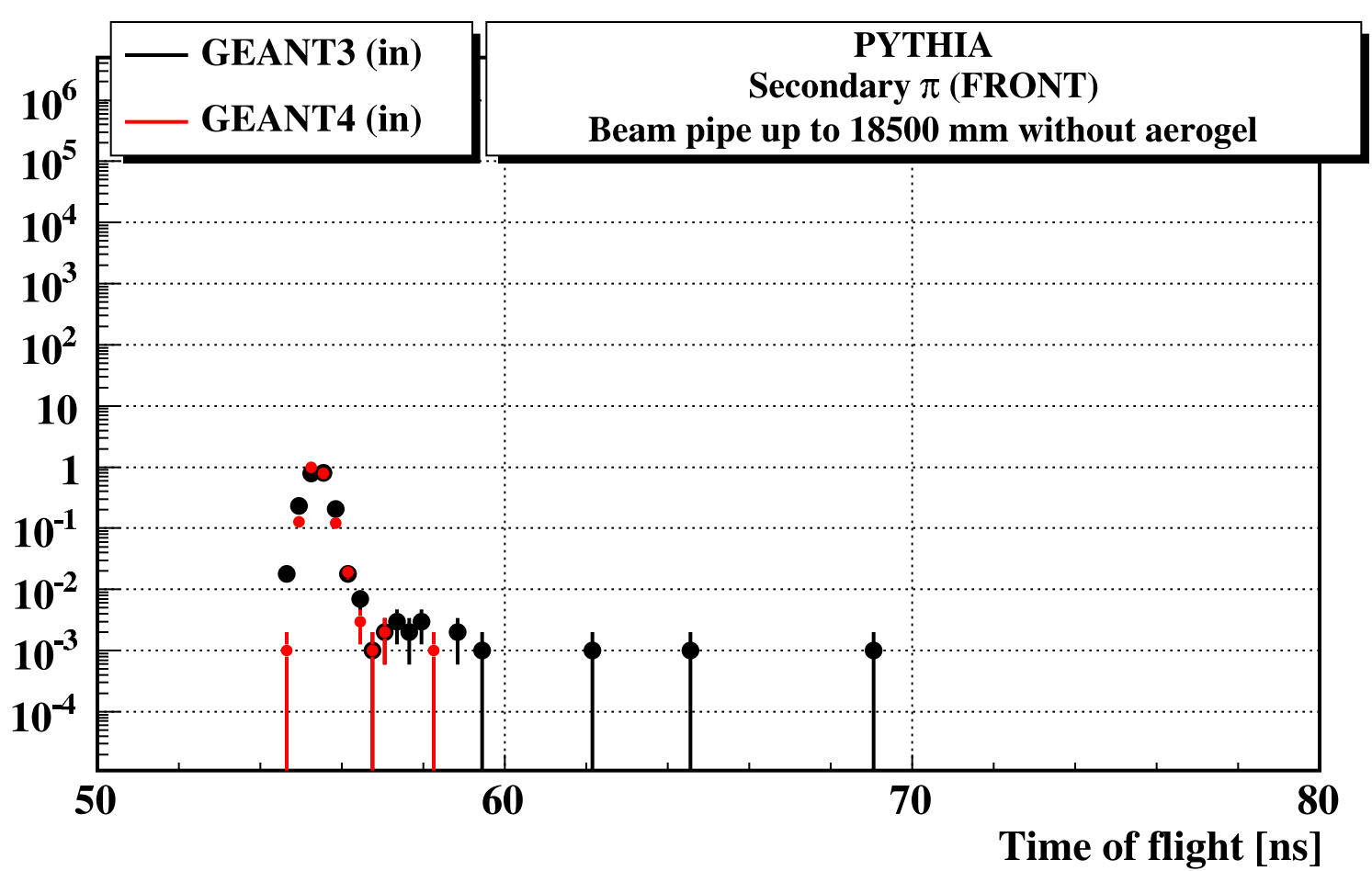

GEANT3 (in)
GEANT4 (in)
PYTHIA
Primary π at IP
Beam pipe up to 18500 mm without aerogel
10^6
10^5
10^4
10^3
10^2
10
1
10^-1
10^-2
10^-3
10^-4
-10
-5
0
5
10
η

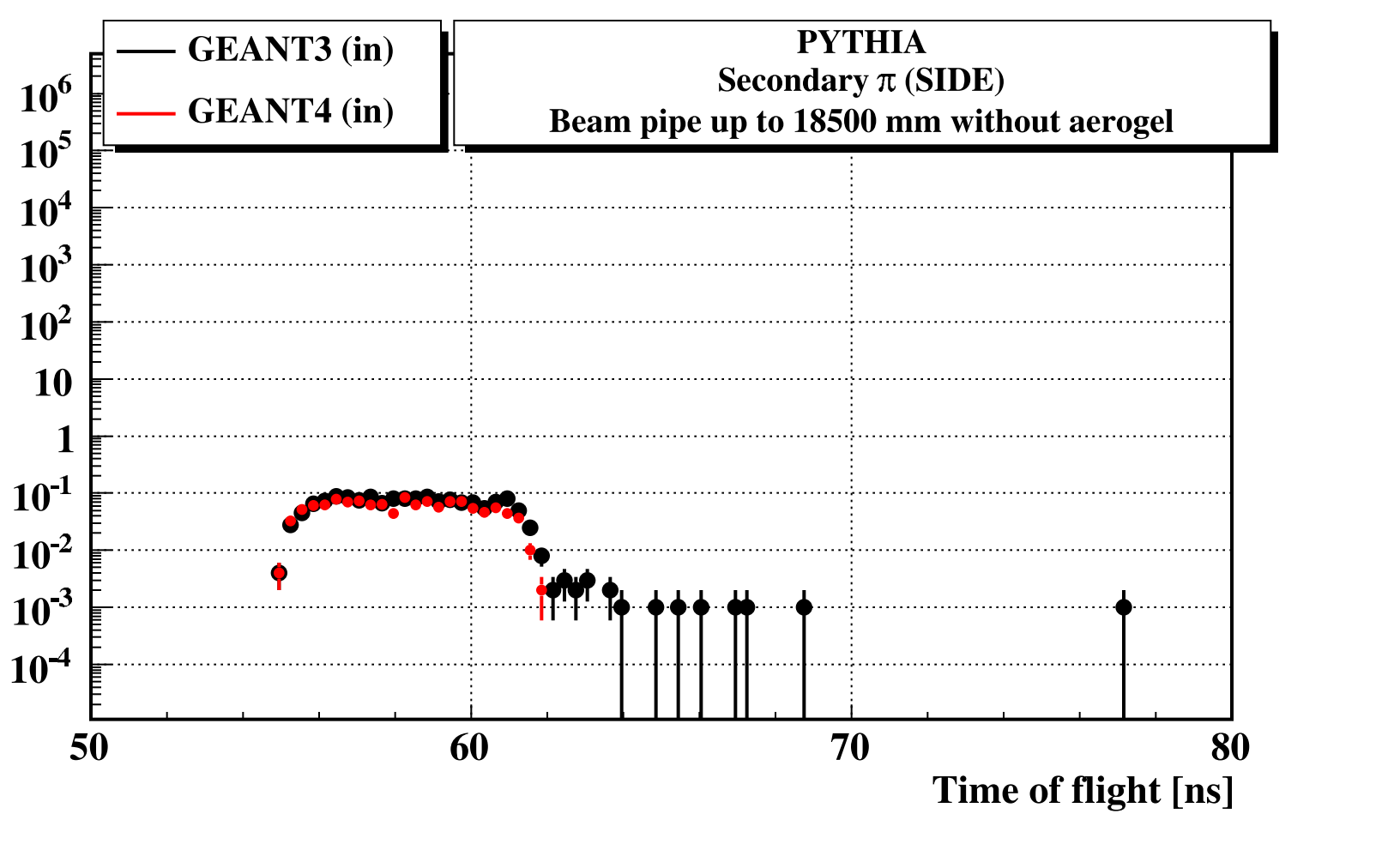

GEANT3 (in)
GEANT4 (in)
PYTHIA
Primary γ at IP
Beam pipe up to 18500 mm without aerogel
10^6
10^5
10^4
10^3
10^2
10
1
10^-1
10^-2
10^-3
10^-4
-10
-5
0
5
10
η

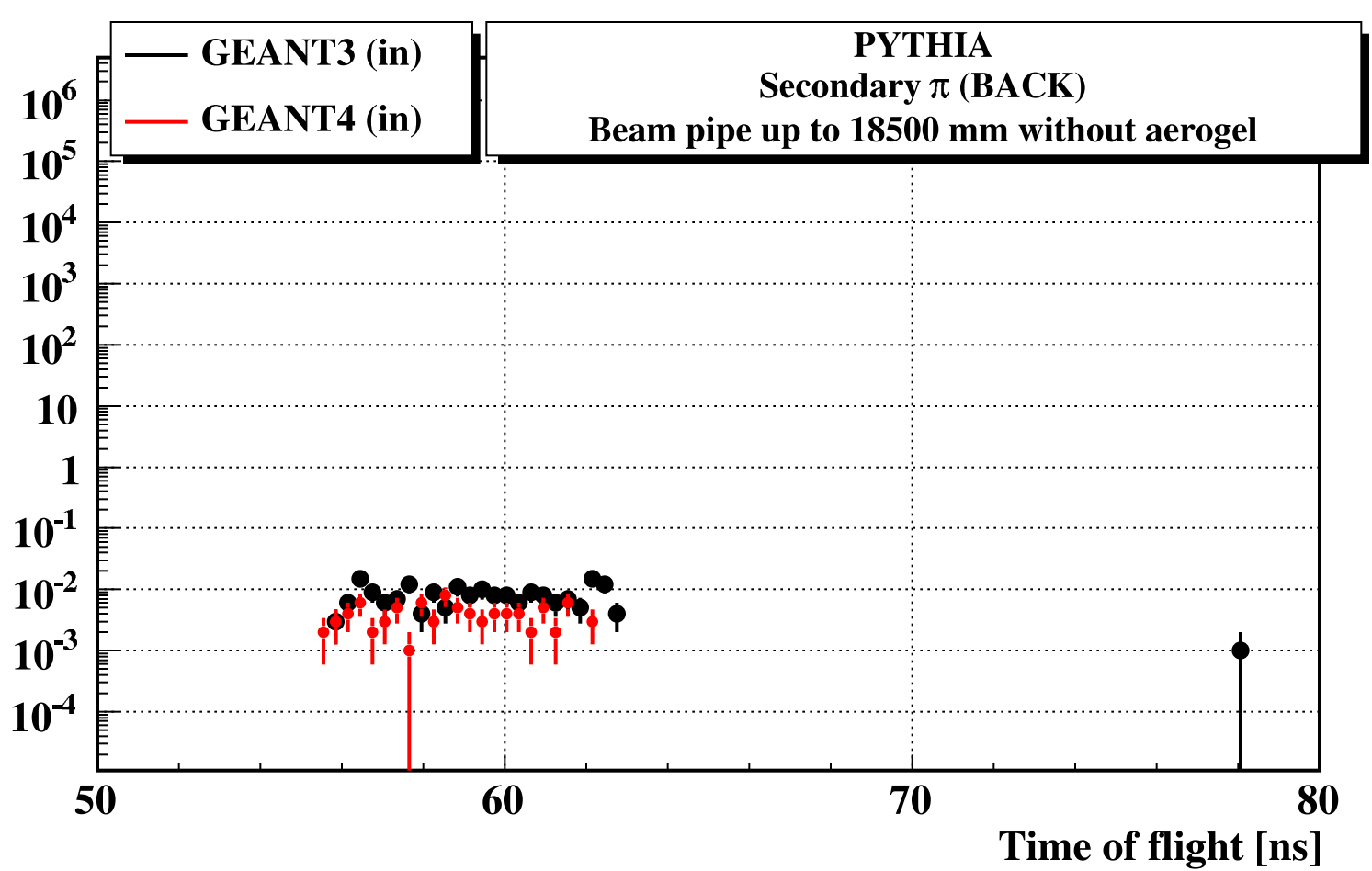

GEANT3 (in)
GEANT4 (in)
PYTHIA
Primary π at LUCID
Beam pipe up to 18500 mm without aerogel
10^6
10^5
10^4
10^3
10^2
10
1
10^-1
10^-2
10^-3
10^-4
50
60
70
80
Time of flight [ns]

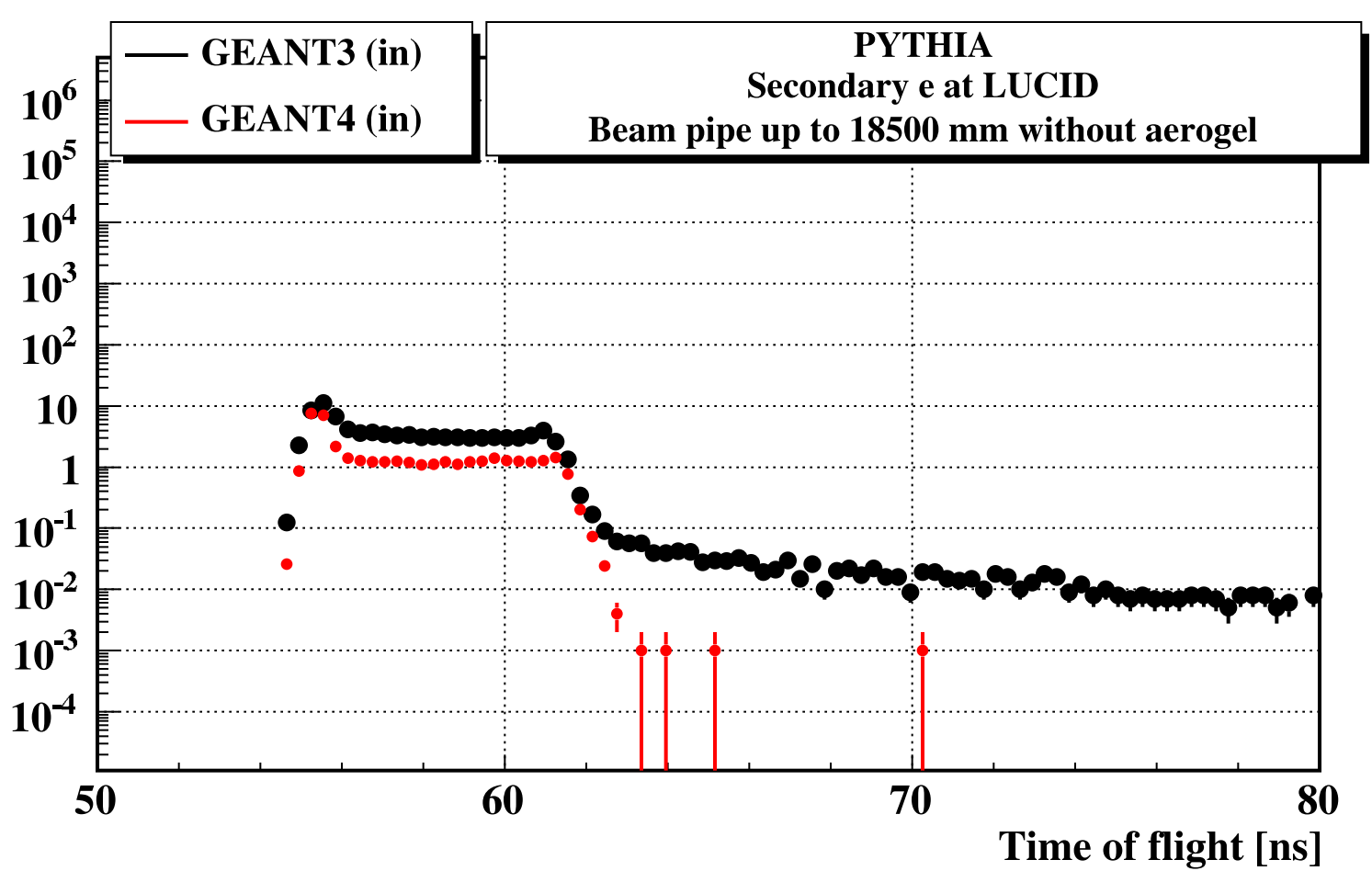

GEANT3 (in)
GEANT4 (in)
PYTHIA
Primary γ at LUCID
Beam pipe up to 18500 mm without aerogel
10^6
10^5
10^4
10^3
10^2
10
1
10^-1
10^-2
10^-3
10^-4
50
60
70
80
Time of flight [ns]

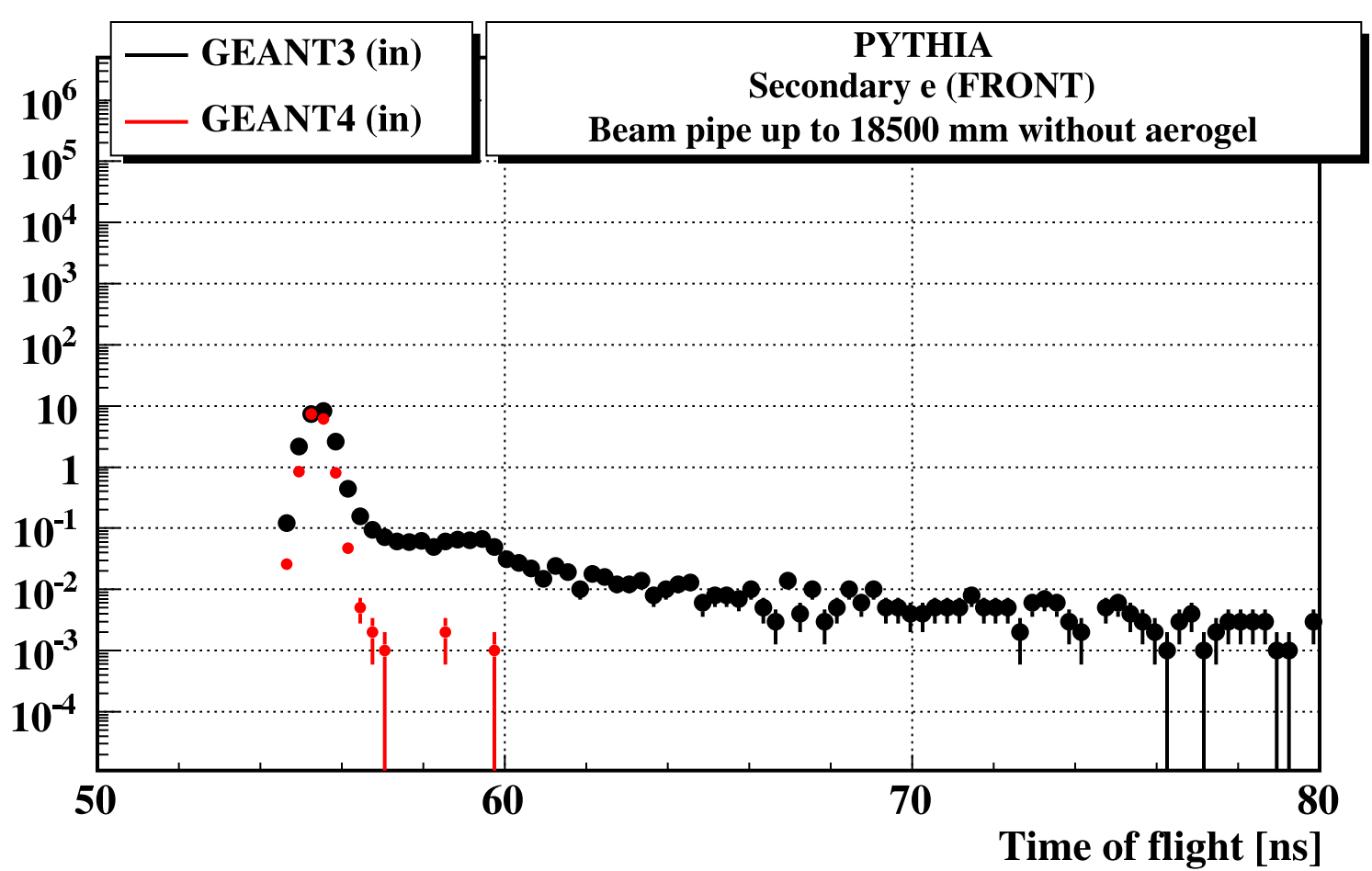

GEANT3 (in)
GEANT4 (in)
PYTHIA
Secondary π at LUCID
Beam pipe up to 18500 mm without aerogel
10^6
10^5
10^4
10^3
10^2
10
1
10^-1
10^-2
10^-3
10^-4
50
60
70
80
Time of flight [ns]

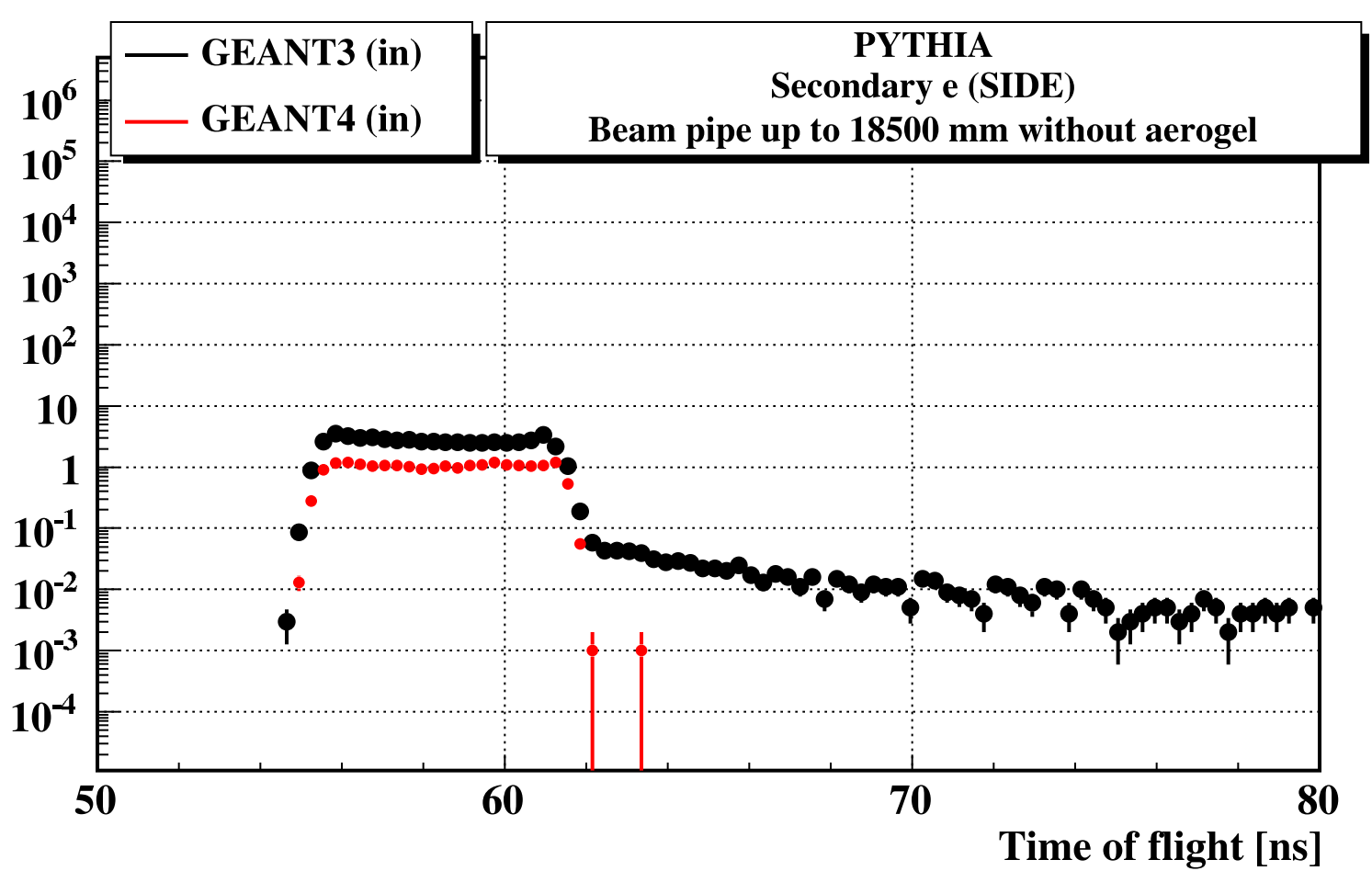

GEANT3 (in)
GEANT4 (in)
PYTHIA
Secondary π (FRONT)
Beam pipe up to 18500 mm without aerogel
10^6
10^5
10^4
10^3
10^2
10
1
10^-1
10^-2
10^-3
10^-4
50
60
70
80
Time of flight [ns]

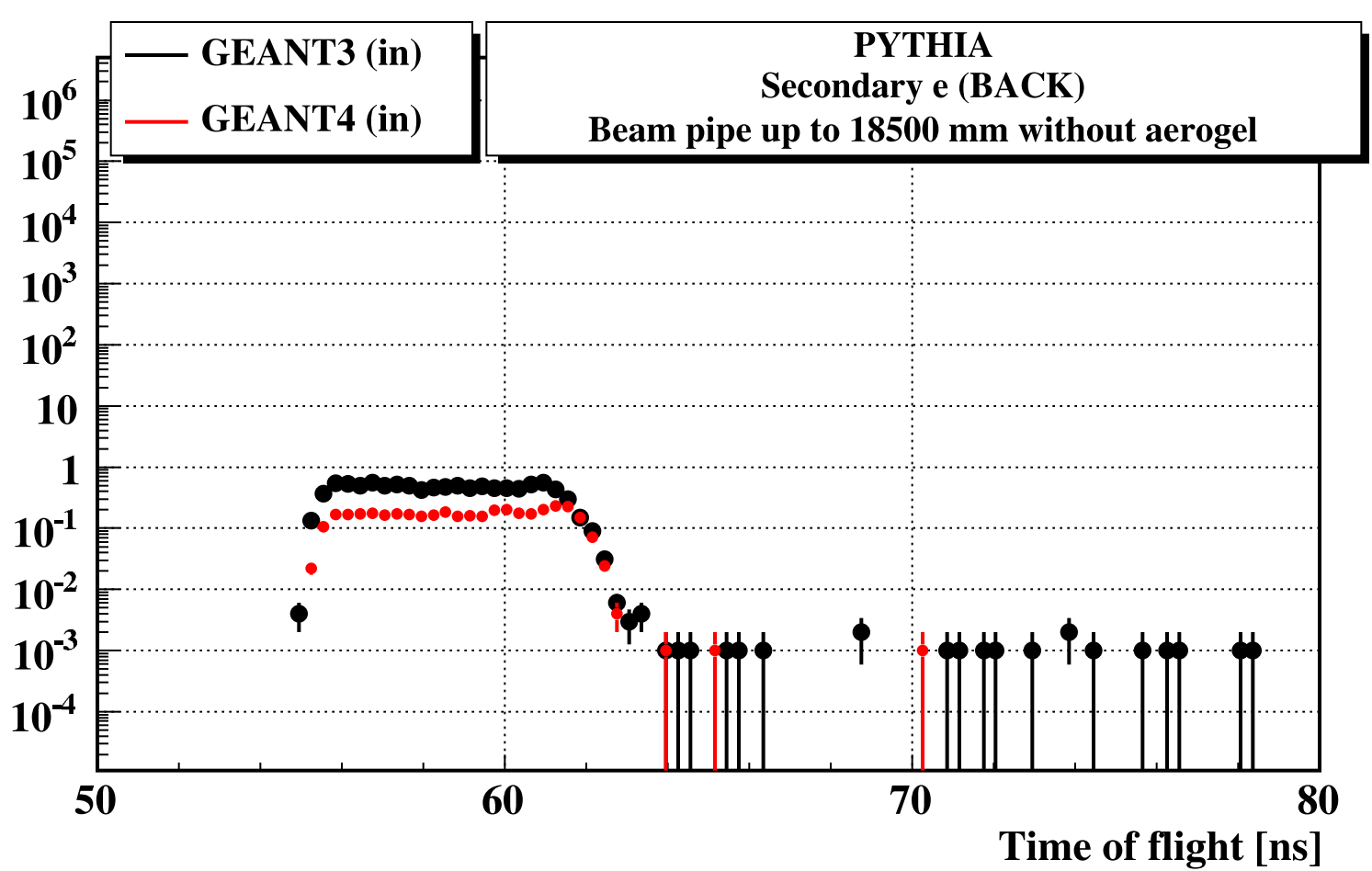

GEANT3 (in)
GEANT4 (in)
PYTHIA
Secondary π (SIDE)
Beam pipe up to 18500 mm without aerogel
10^6
10^5
10^4
10^3
10^2
10
1
10^-1
10^-2
10^-3
10^-4
50
60
70
80
Time of flight [ns]

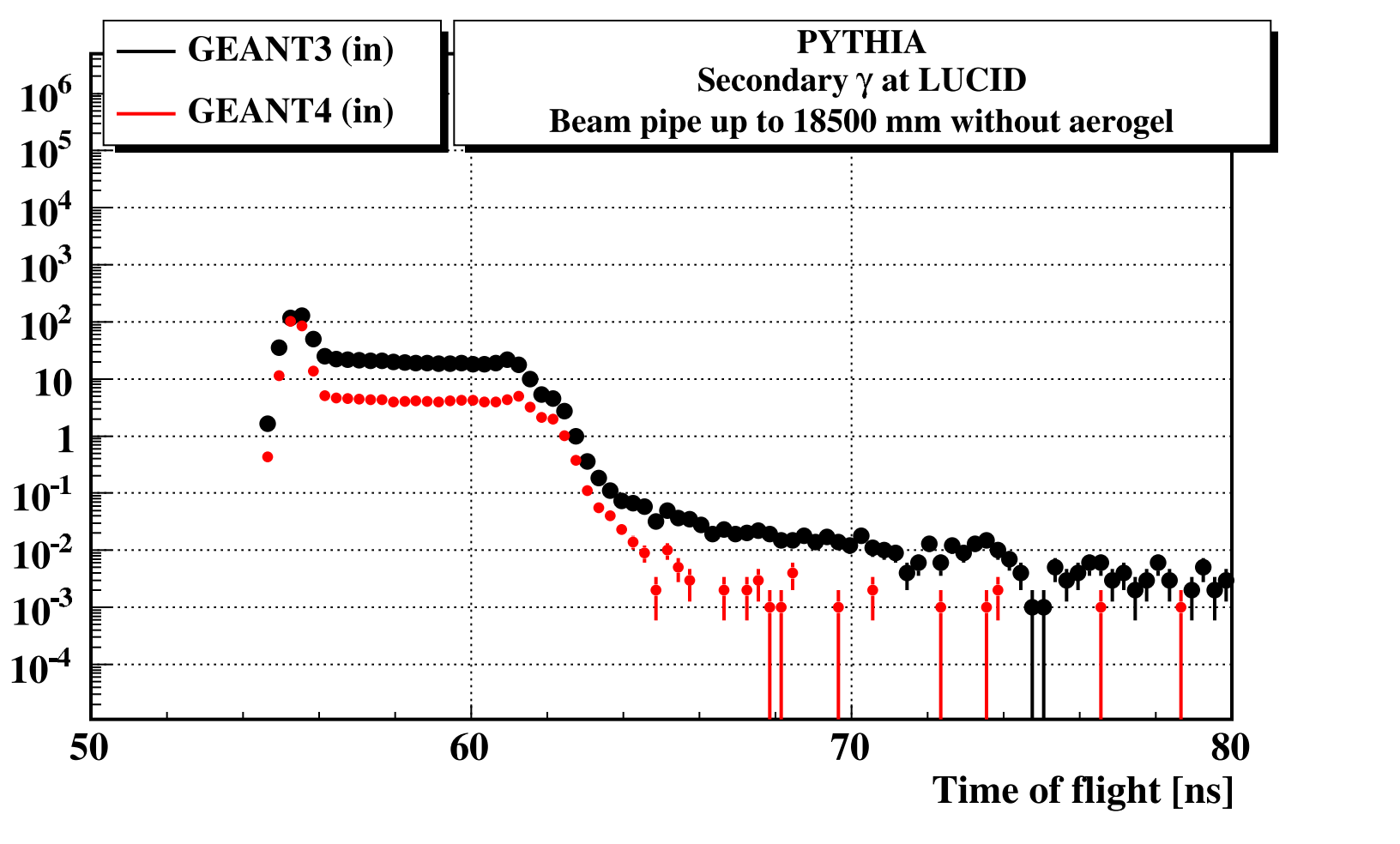

GEANT3 (in)
GEANT4 (in)
PYTHIA
Secondary π (BACK)
Beam pipe up to 18500 mm without aerogel
10^6
10^5
10^4
10^3
10^2
10
1
10^-1
10^-2
10^-3
10^-4
50
60
70
80
Time of flight [ns]

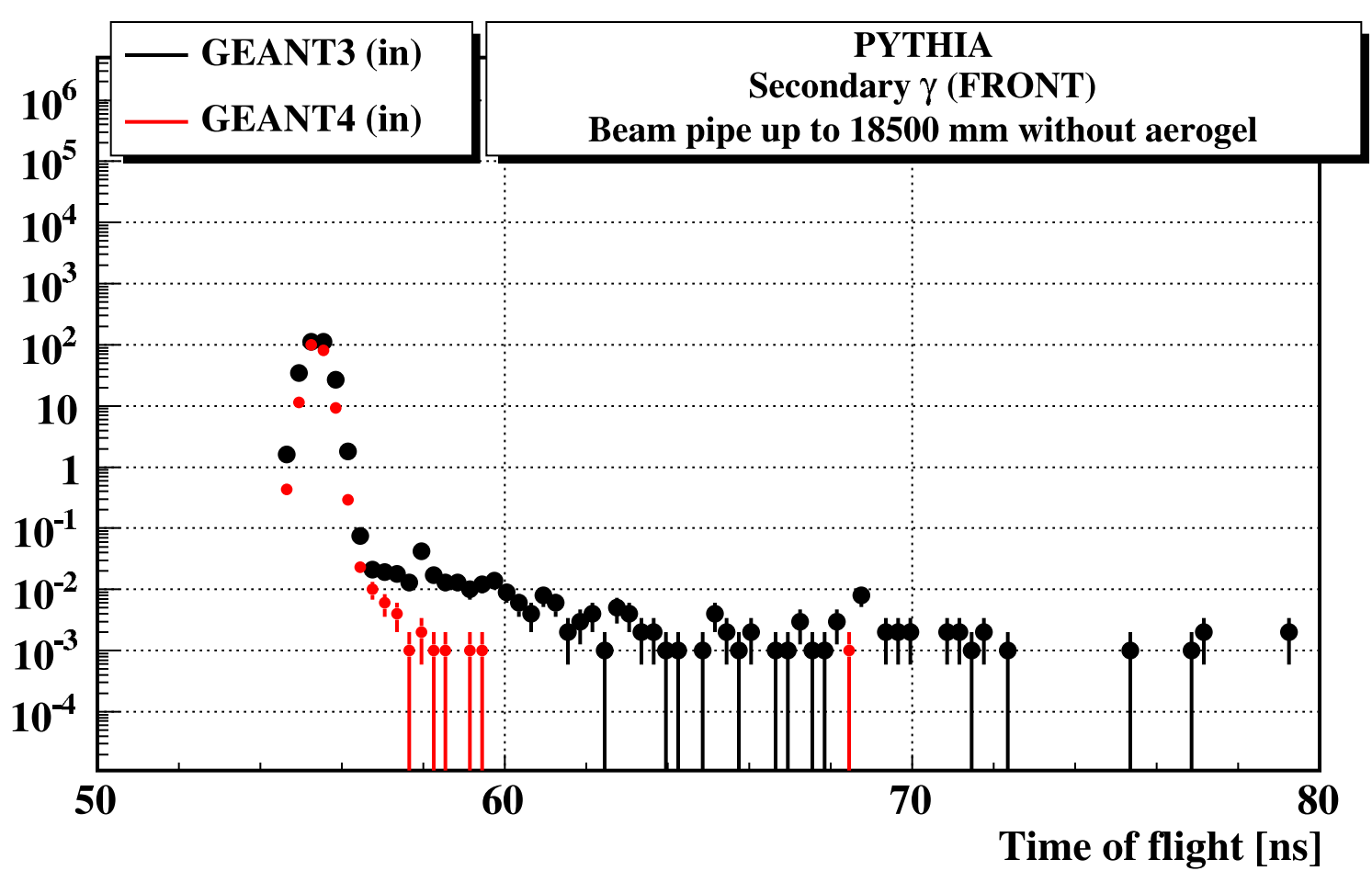

GEANT3 (in)
GEANT4 (in)
PYTHIA
Secondary e at LUCID
Beam pipe up to 18500 mm without aerogel
10^6
10^5
10^4
10^3
10^2
10
1
10^{-1}
10^{-2}
10^{-3}
10^{-4}
50
60
70
80
Time of flight [ns]

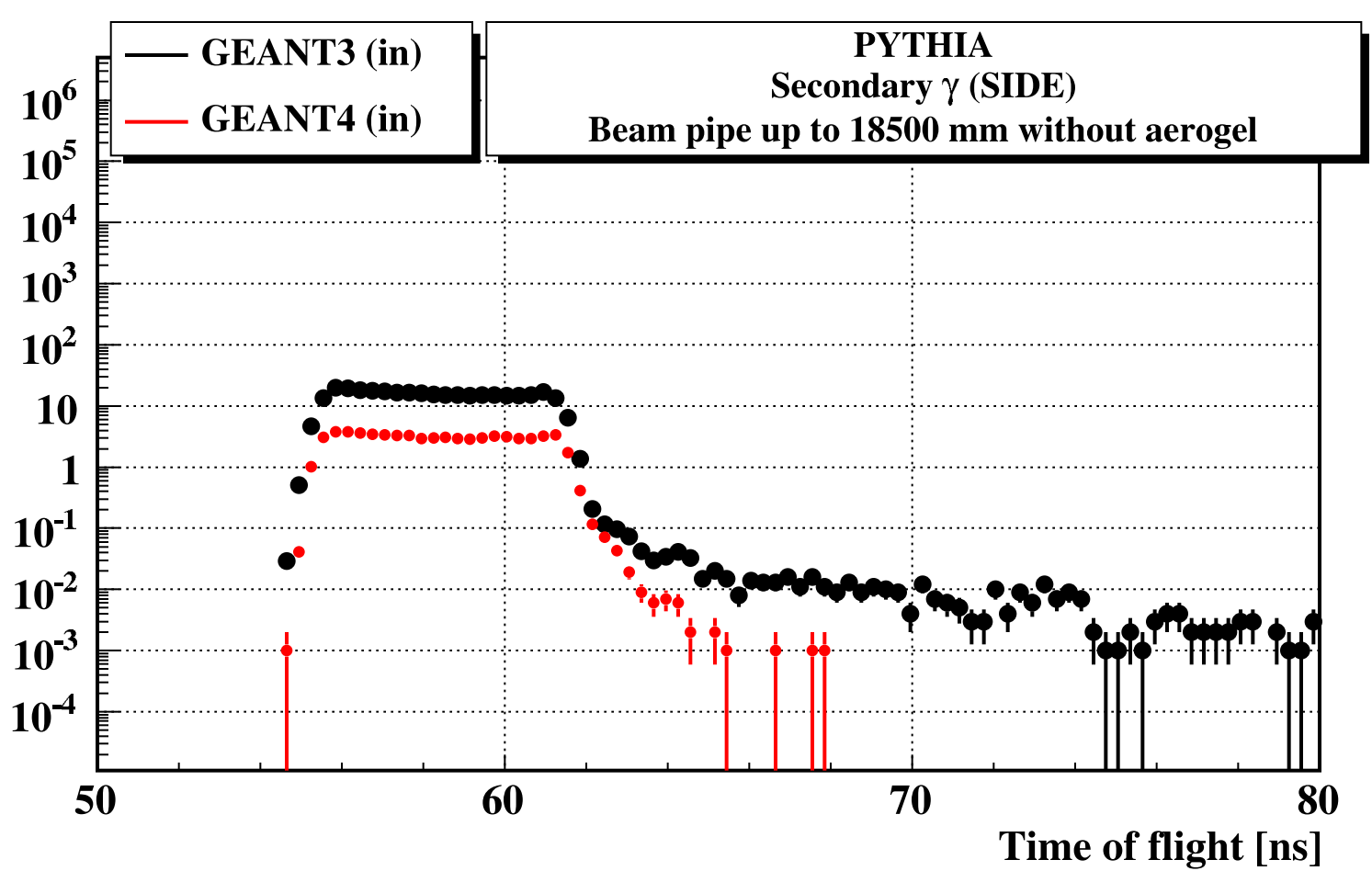

GEANT3 (in)
GEANT4 (in)
PYTHIA
Secondary e (FRONT)
Beam pipe up to 18500 mm without aerogel
10^6
10^5
10^4
10^3
10^2
10
1
10^-1
10^-2
10^-3
10^-4
50
60
70
80
Time of flight [ns]

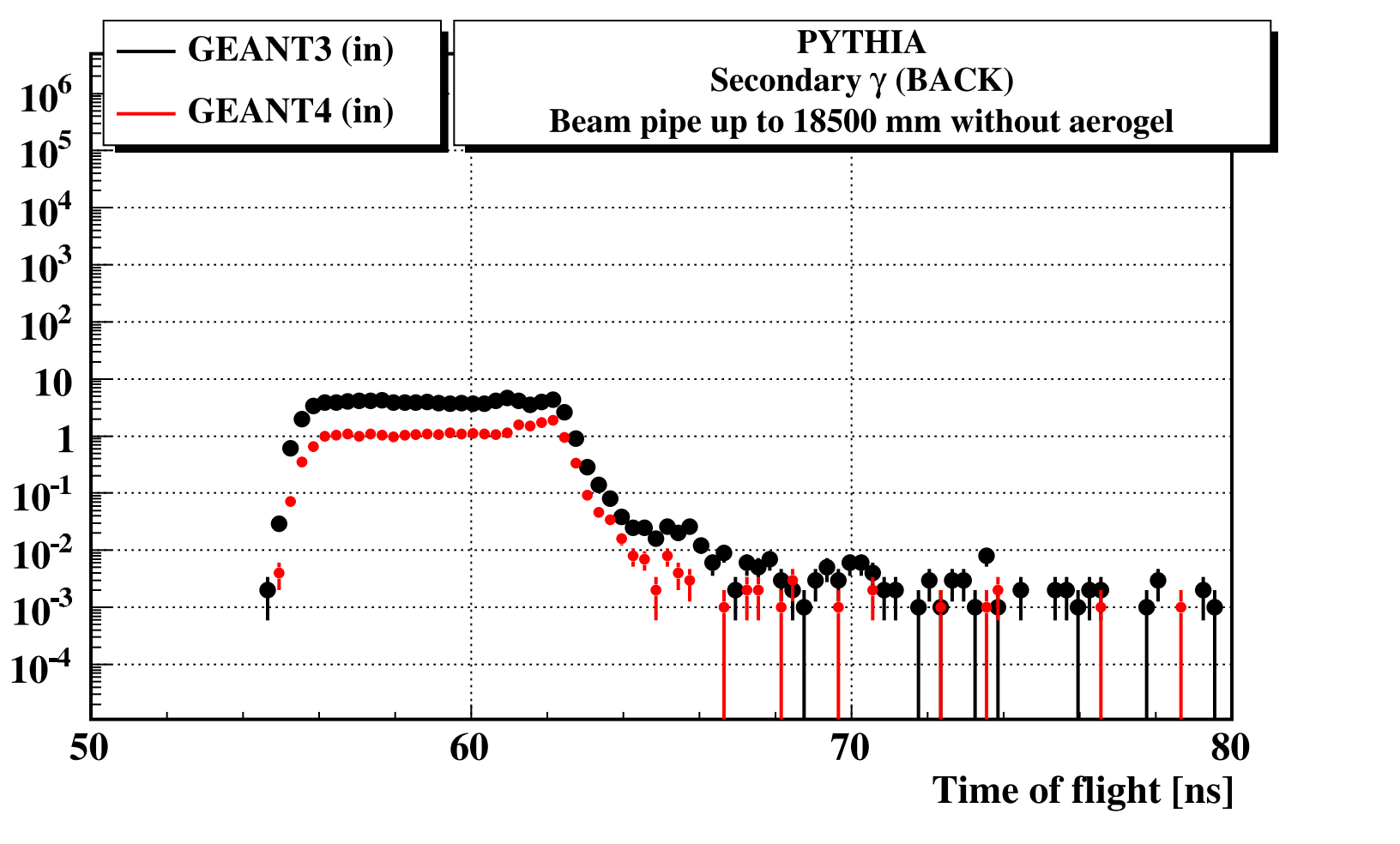

GEANT3 (in)
GEANT4 (in)
PYTHIA
Secondary e (SIDE)
Beam pipe up to 18500 mm without aerogel
10^6
10^5
10^4
10^3
10^2
10
1
10^-1
10^-2
10^-3
10^-4
50
60
70
80
Time of flight [ns]

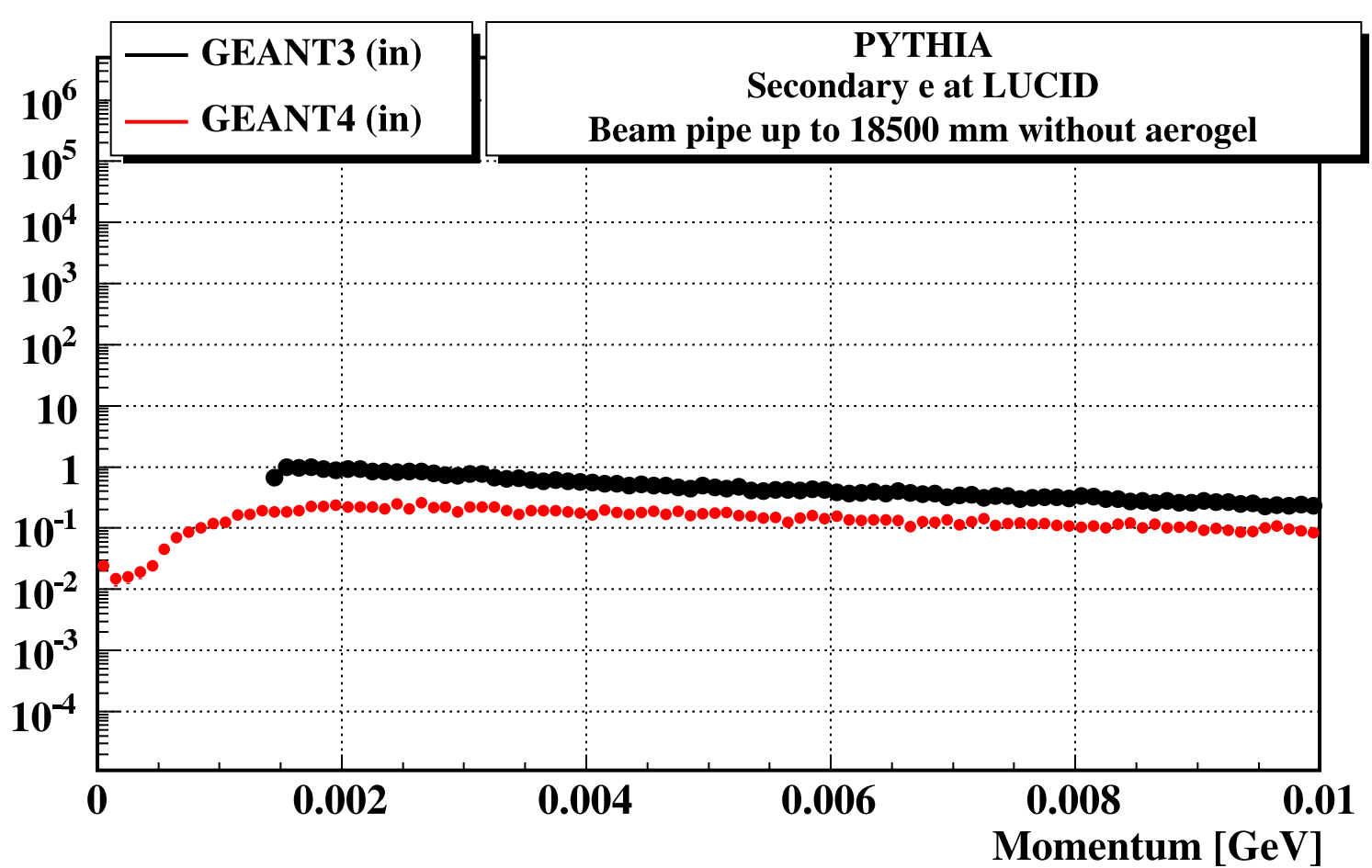

GEANT3 (in)
GEANT4 (in)
PYTHIA
Secondary e (BACK)
Beam pipe up to 18500 mm without aerogel
10^6
10^5
10^4
10^3
10^2
10
1
10^-1
10^-2
10^-3
10^-4
50
60
70
80
Time of flight [ns]

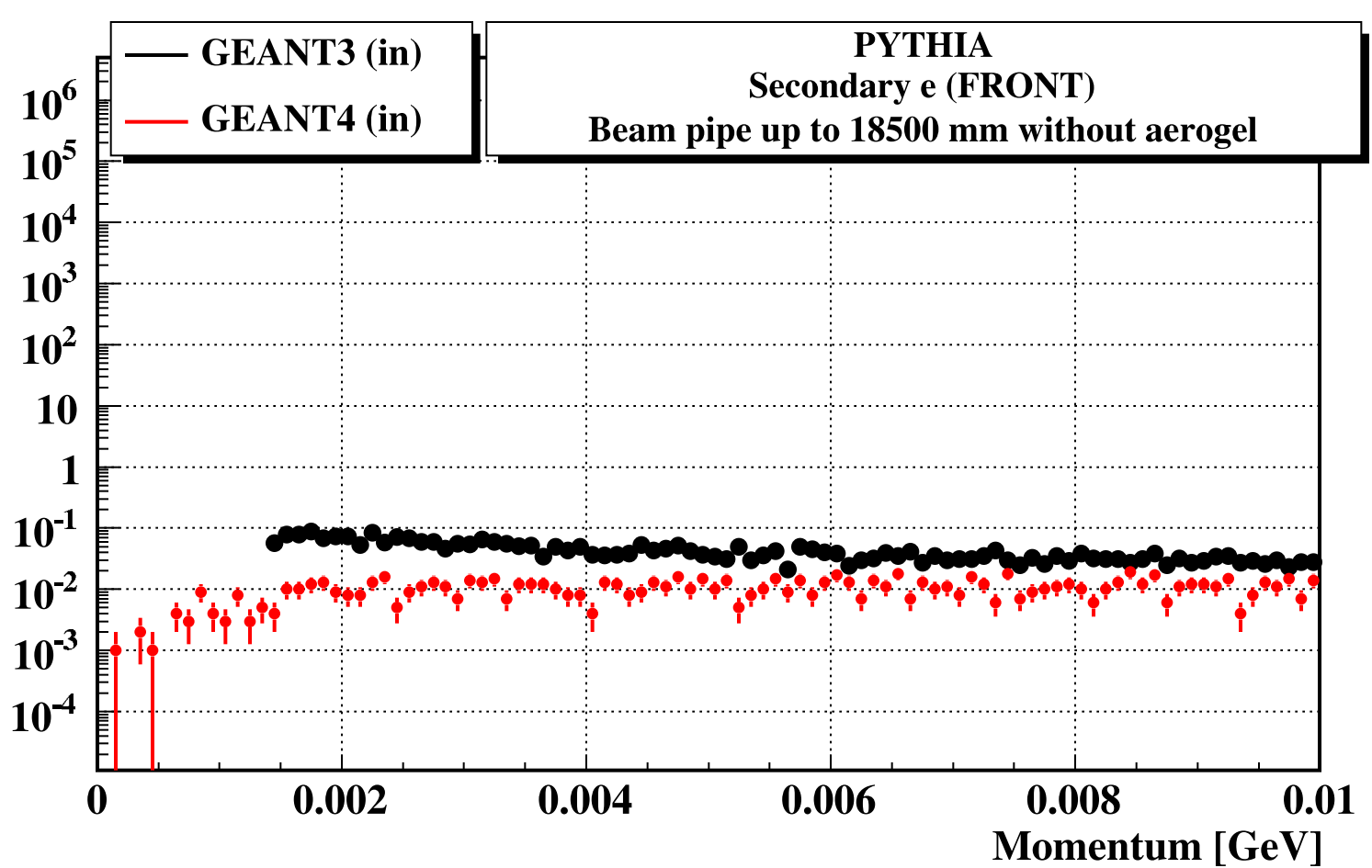

GEANT3 (in)
GEANT4 (in)
PYTHIA
Secondary γ at LUCID
Beam pipe up to 18500 mm without aerogel
10^6
10^5
10^4
10^3
10^2
10
1
10^-1
10^-2
10^-3
10^-4
50
60
70
80
Time of flight [ns]

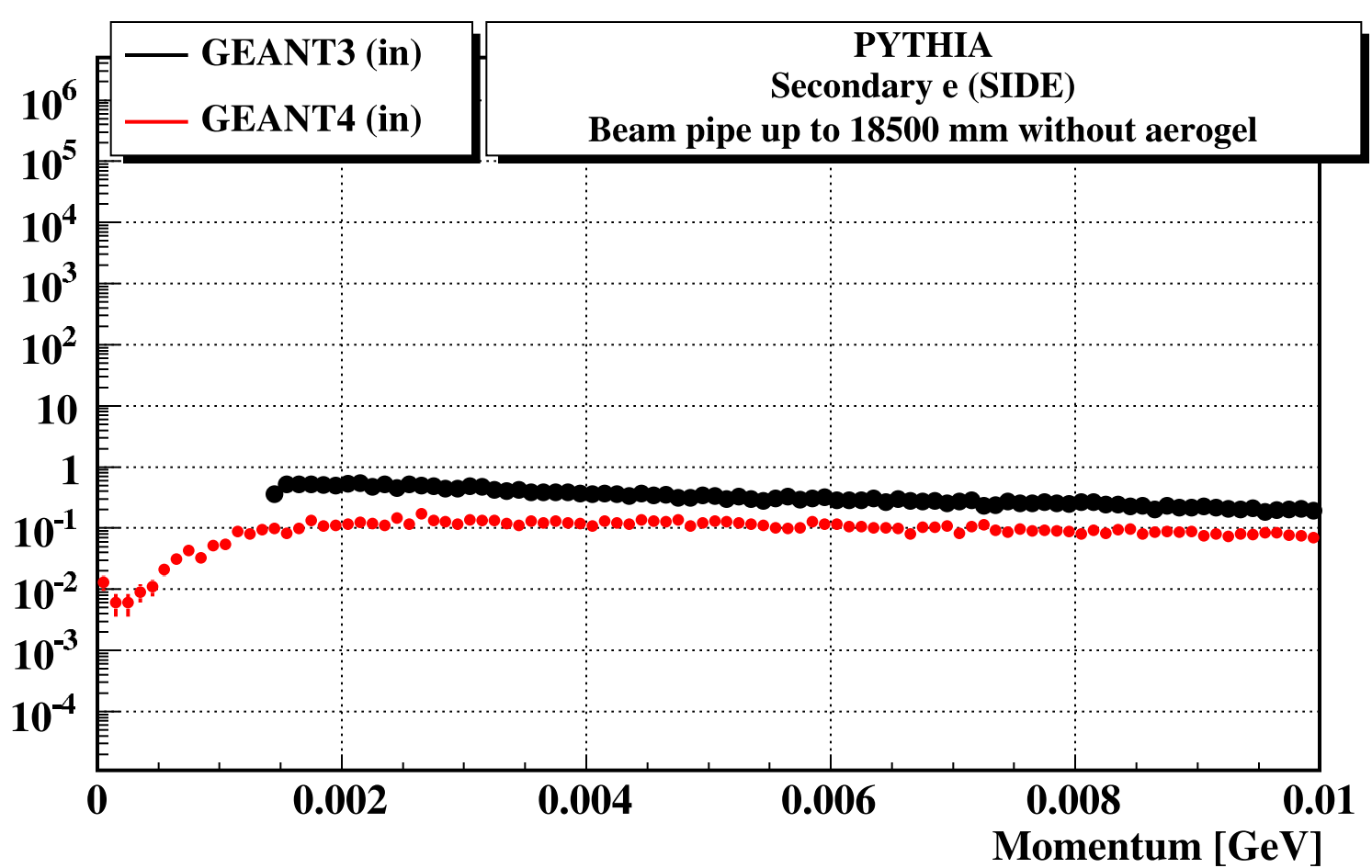

GEANT3 (in)
GEANT4 (in)
PYTHIA
Secondary γ (FRONT)
Beam pipe up to 18500 mm without aerogel
10^6
10^5
10^4
10^3
10^2
10
1
10^-1
10^-2
10^-3
10^-4
50
60
70
80
Time of flight [ns]

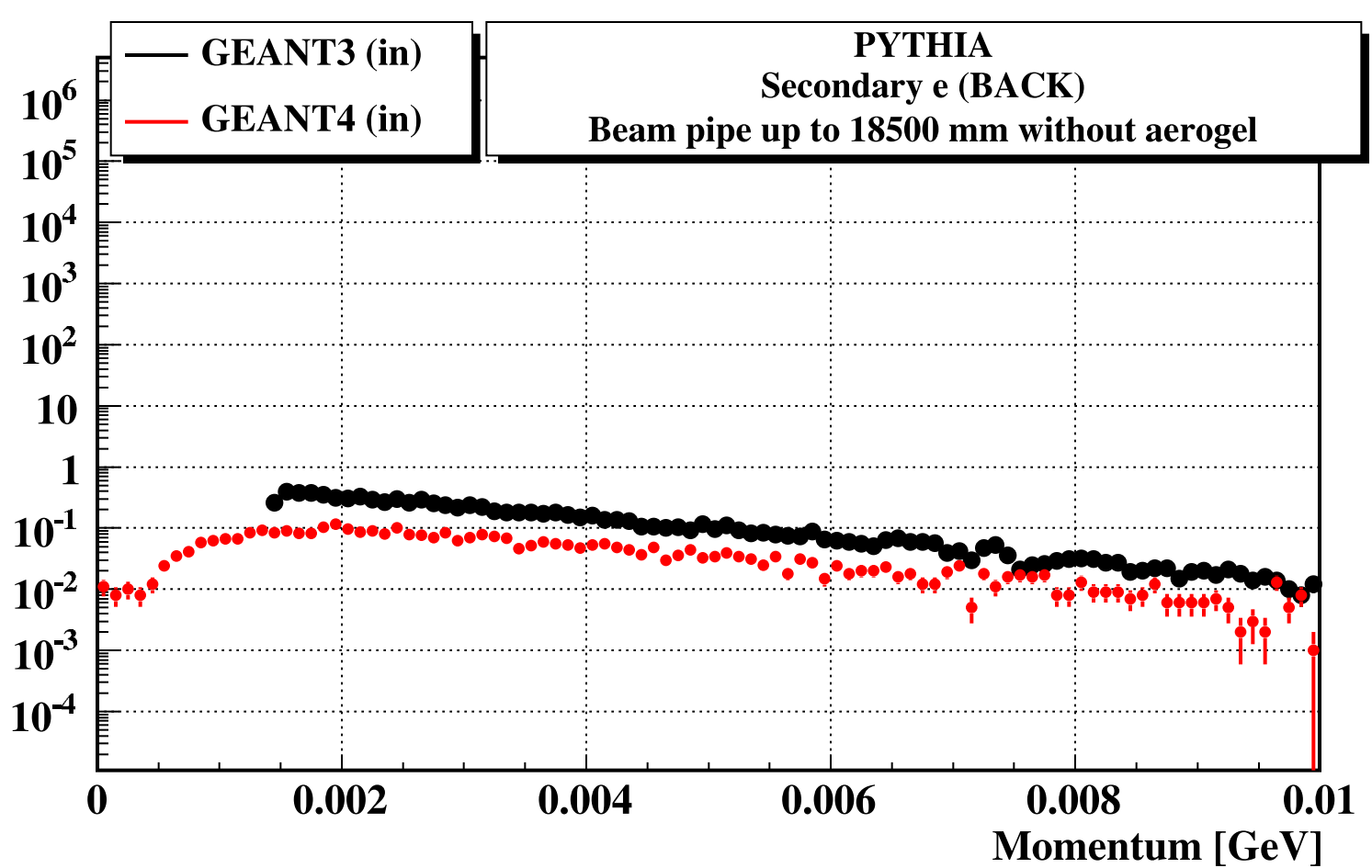

GEANT3 (in)
GEANT4 (in)
PYTHIA
Secondary γ (SIDE)
Beam pipe up to 18500 mm without aerogel
10^6
10^5
10^4
10^3
10^2
10
1
10^-1
10^-2
10^-3
10^-4
50
60
70
80
Time of flight [ns]

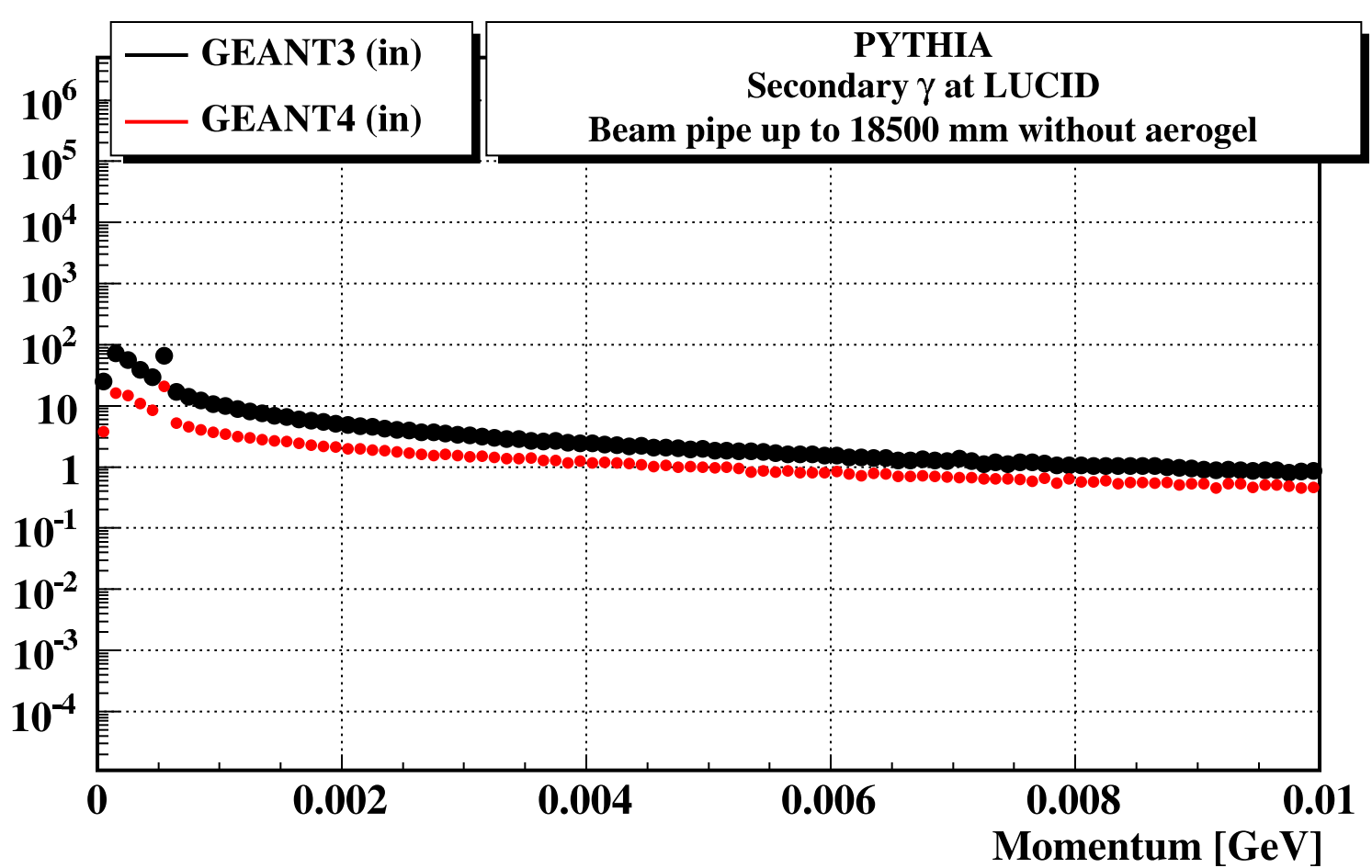

GEANT3 (in)
GEANT4 (in)
PYTHIA
Secondary γ (BACK)
Beam pipe up to 18500 mm without aerogel
10^6
10^5
10^4
10^3
10^2
10
1
10^-1
10^-2
10^-3
10^-4
50
60
70
80
Time of flight [ns]

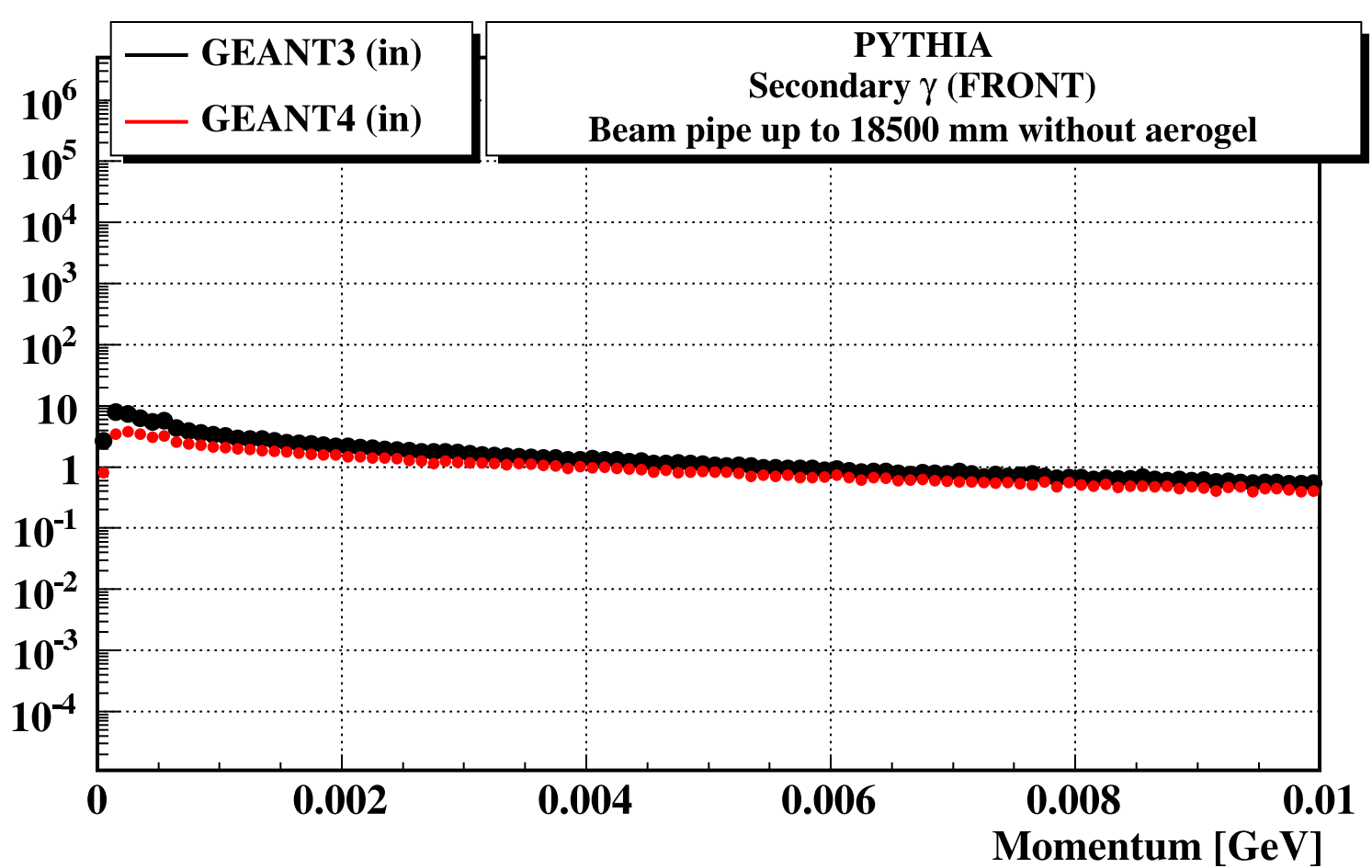

GEANT3 (in)
GEANT4 (in)
PYTHIA
Secondary e at LUCID
Beam pipe up to 18500 mm without aerogel
10^6
10^5
10^4
10^3
10^2
10
1
10^-1
10^-2
10^-3
10^-4
0
0.002
0.004
0.006
0.008
0.01
Momentum [GeV]

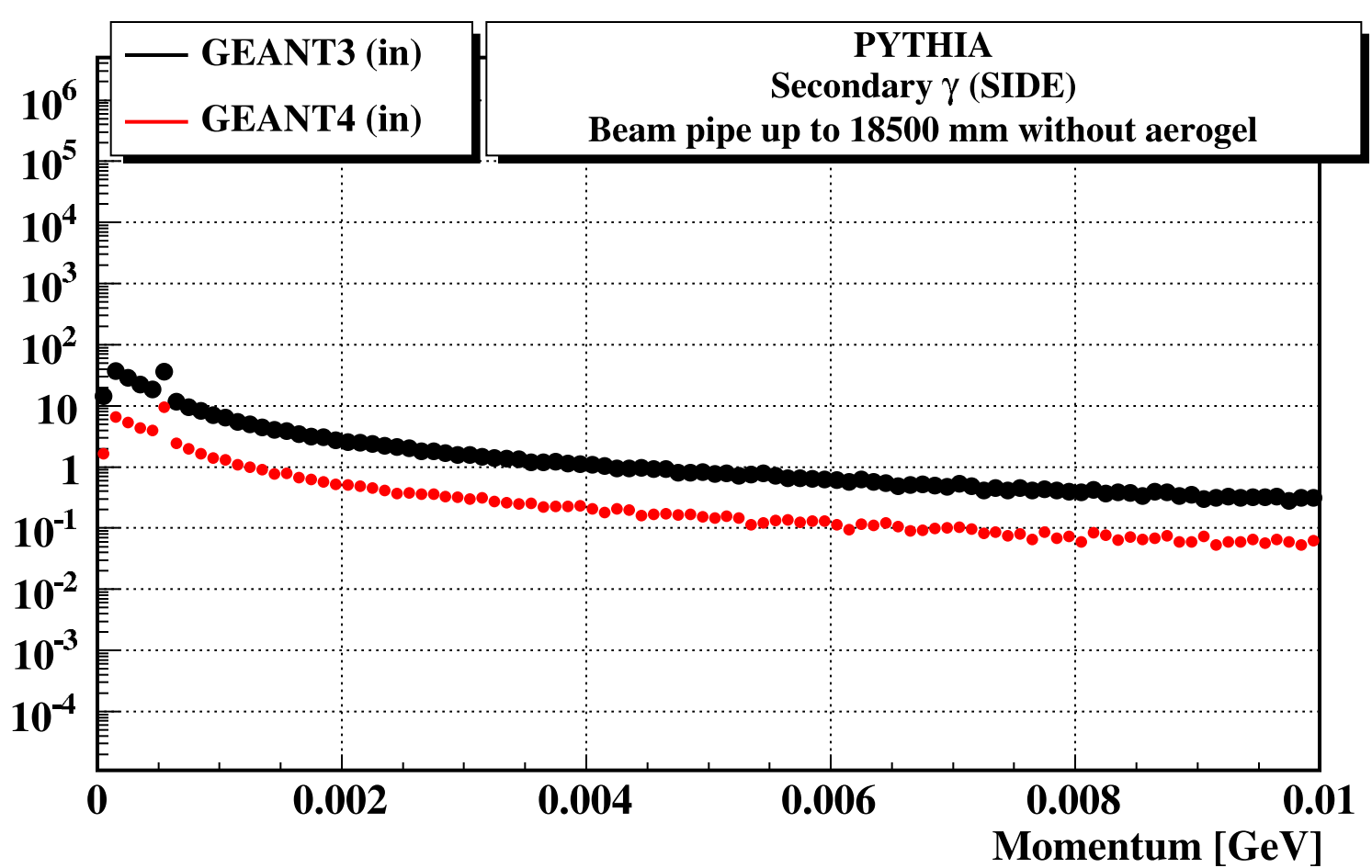

GEANT3 (in)
GEANT4 (in)
PYTHIA
Secondary e (FRONT)
Beam pipe up to 18500 mm without aerogel
10^6
10^5
10^4
10^3
10^2
10
1
10^-1
10^-2
10^-3
10^-4
0
0.002
0.004
0.006
0.008
0.01
Momentum [GeV]

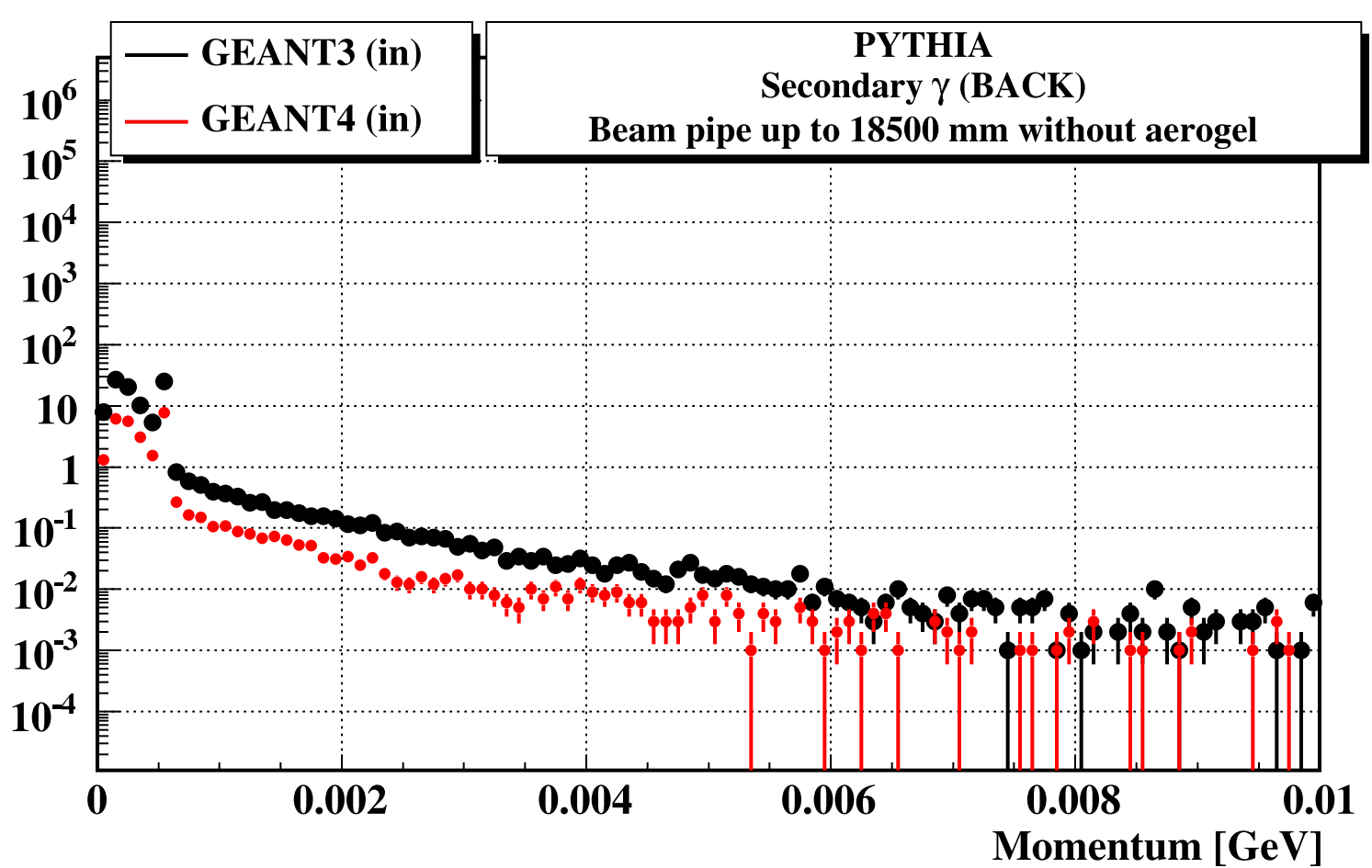

GEANT3 (in)
GEANT4 (in)
PYTHIA
Secondary e (SIDE)
Beam pipe up to 18500 mm without aerogel
10^6
10^5
10^4
10^3
10^2
10
1
10^-1
10^-2
10^-3
10^-4
0
0.002
0.004
0.006
0.008
0.01
Momentum [GeV]


GEANT3 (in)
GEANT4 (in)
PYTHIA
Secondary e (BACK)
Beam pipe up to 18500 mm without aerogel
10^6
10^5
10^4
10^3
10^2
10
1
10^-1
10^-2
10^-3
10^-4
0
0.002
0.004
0.006
0.008
0.01
Momentum [GeV]


GEANT3 (in)
GEANT4 (in)
PYTHIA
Secondary γ at LUCID
Beam pipe up to 18500 mm without aerogel
10^6
10^5
10^4
10^3
10^2
10
1
10^-1
10^-2
10^-3
10^-4
0
0.002
0.004
0.006
0.008
0.01
Momentum [GeV]


GEANT3 (in)
GEANT4 (in)
PYTHIA
Secondary γ (FRONT)
Beam pipe up to 18500 mm without aerogel
10^6
10^5
10^4
10^3
10^2
10
1
10^-1
10^-2
10^-3
10^-4
0
0.002
0.004
0.006
0.008
0.01
Momentum [GeV]


GEANT3 (in)
GEANT4 (in)
PYTHIA
Secondary γ (SIDE)
Beam pipe up to 18500 mm without aerogel
10^6
10^5
10^4
10^3
10^2
10
1
10^-1
10^-2
10^-3
10^-4
0
0.002
0.004
0.006
0.008
0.01
Momentum [GeV]


GEANT3 (in)
GEANT4 (in)
PYTHIA
Secondary γ (BACK)
Beam pipe up to 18500 mm without aerogel
10^6
10^5
10^4
10^3
10^2
10
1
10^-1
10^-2
10^-3
10^-4
0
0.002
0.004
0.006
0.008
0.01
Momentum [GeV]