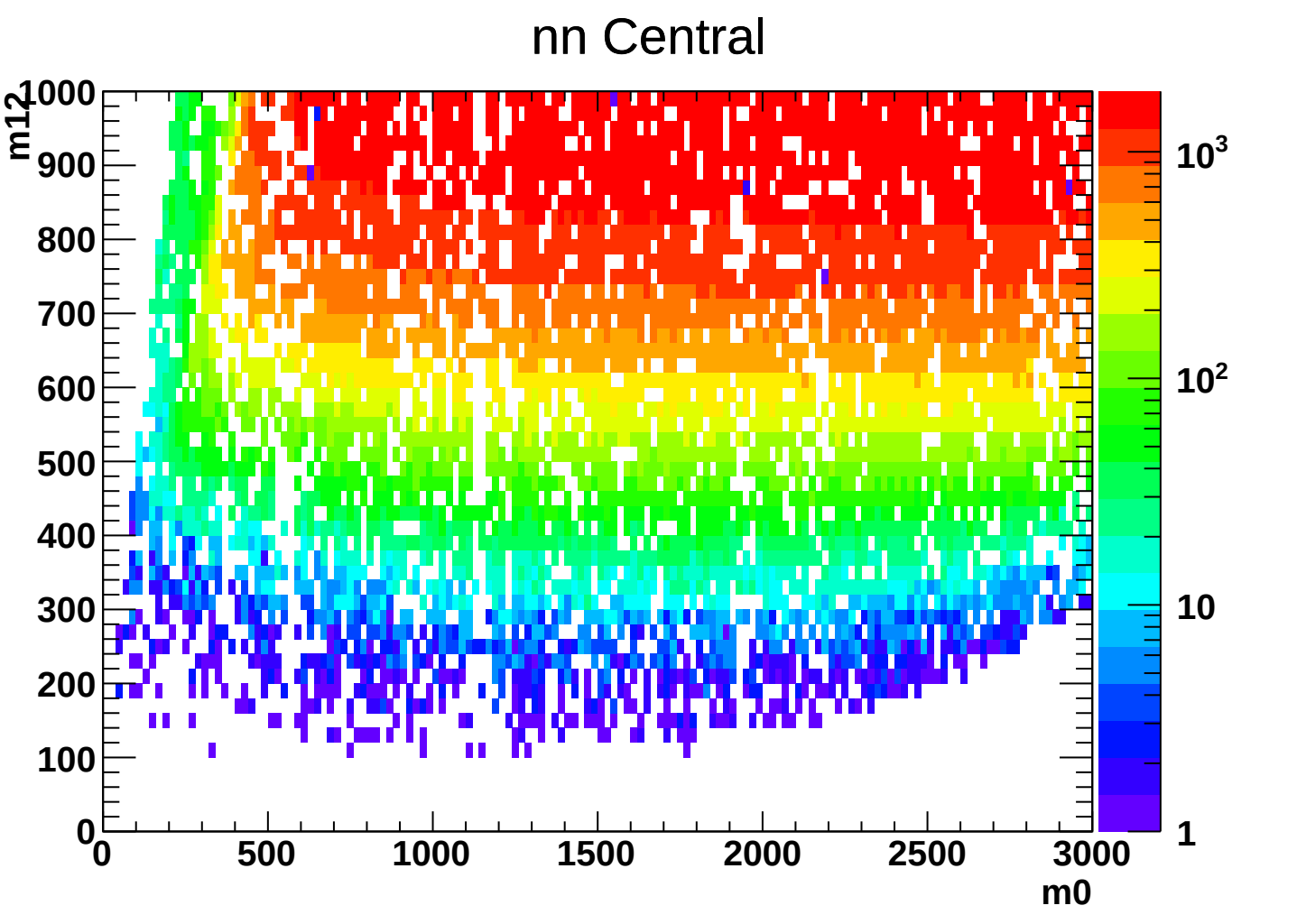
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m12
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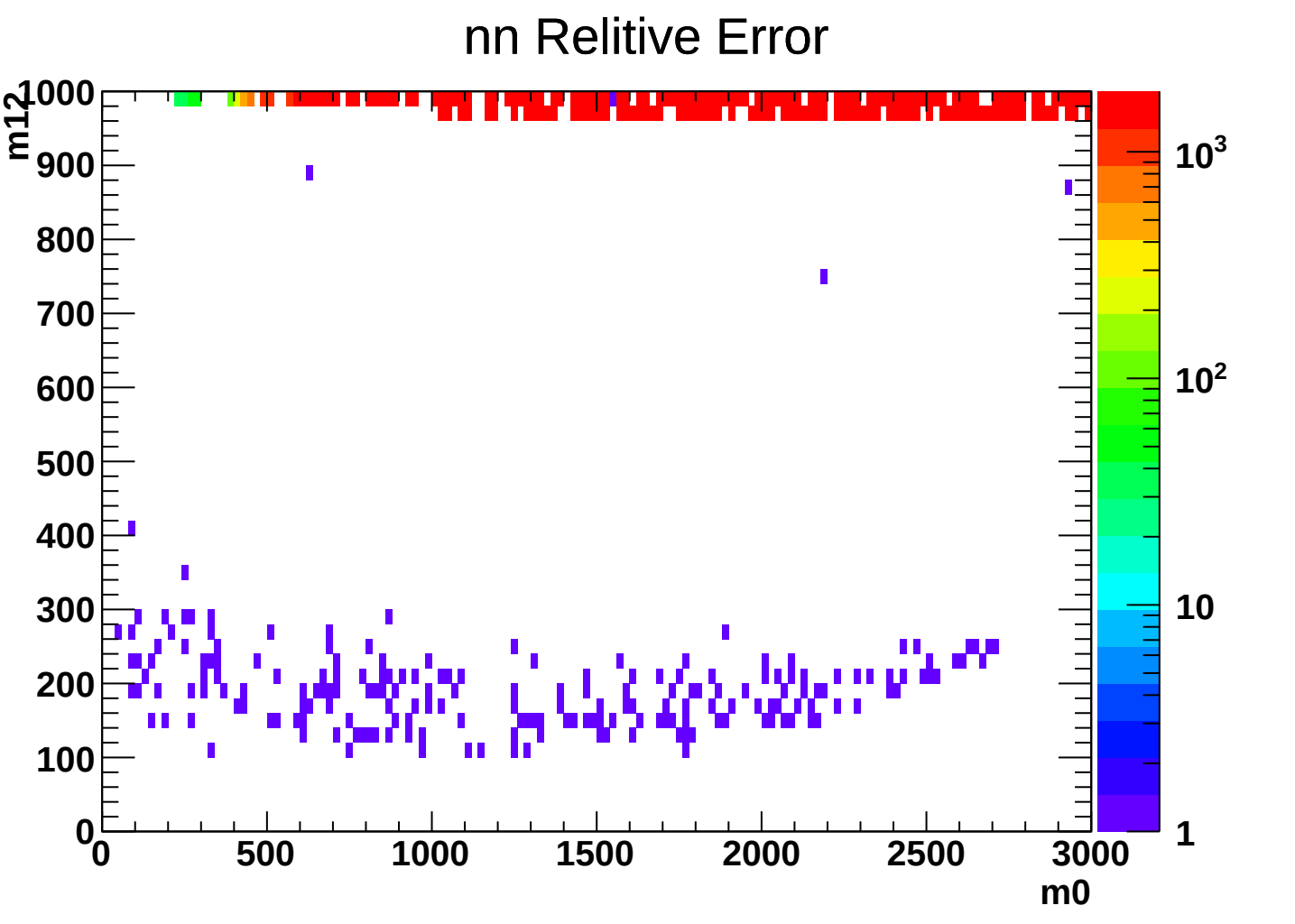
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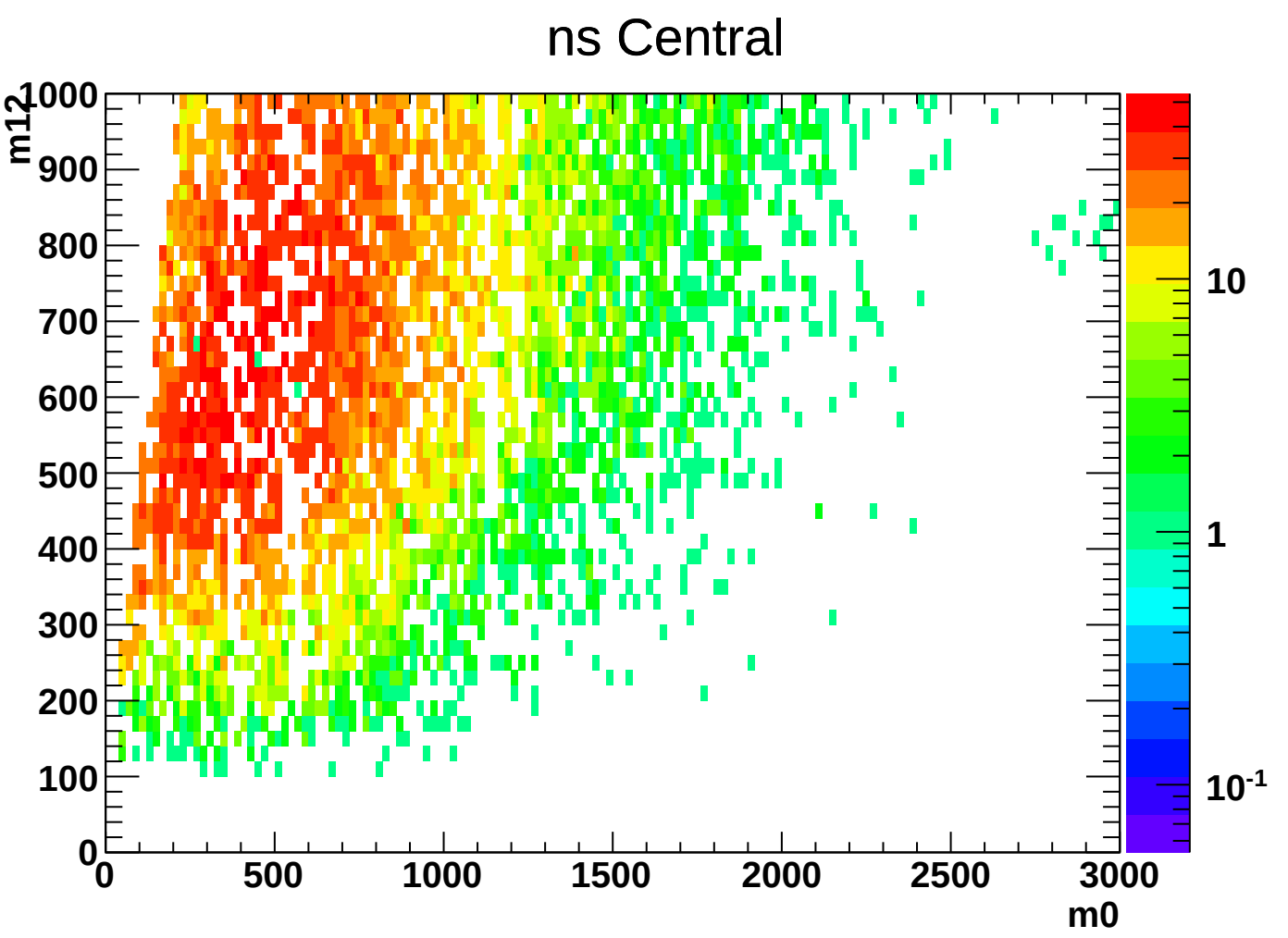
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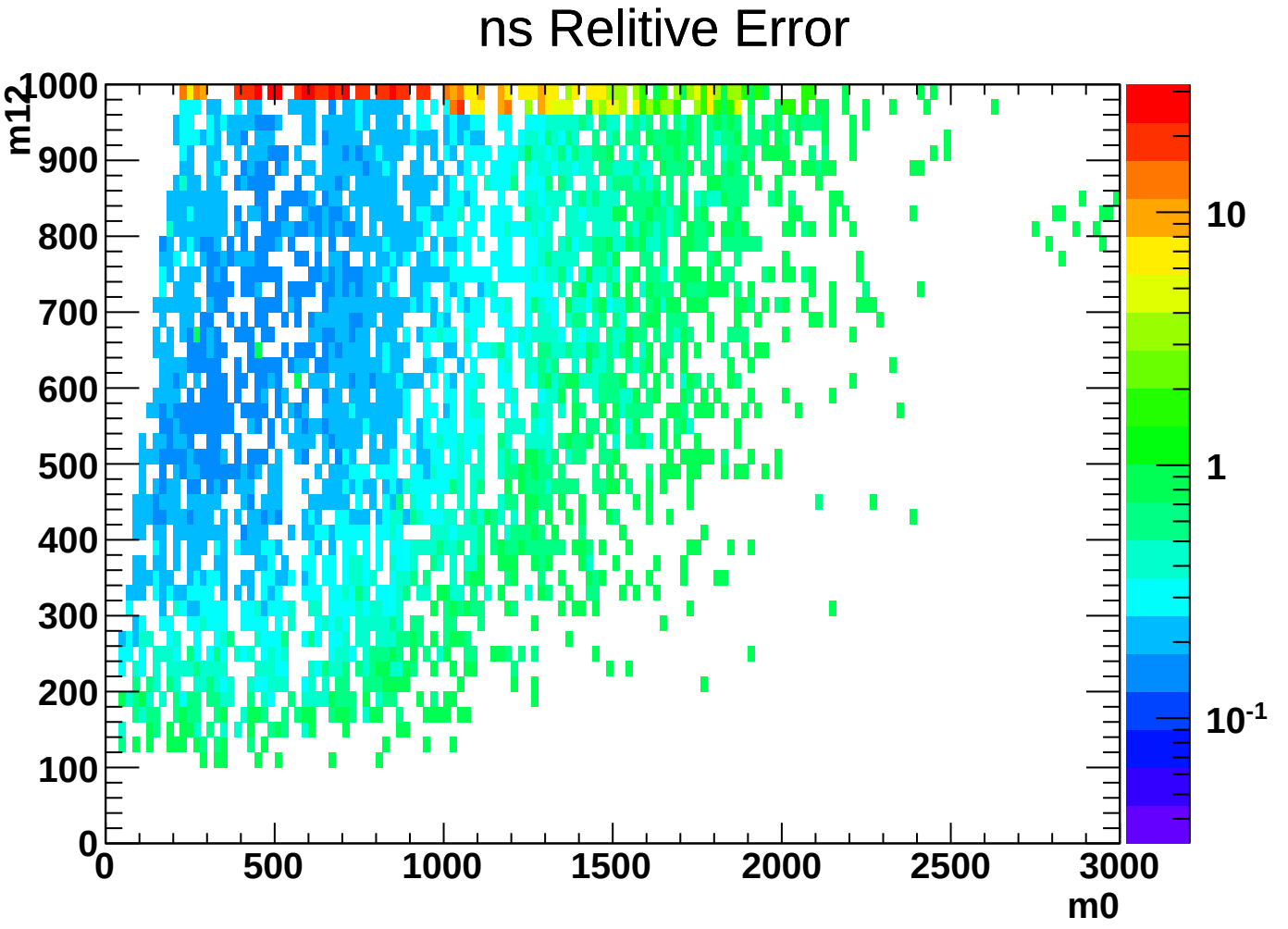
10^{-1}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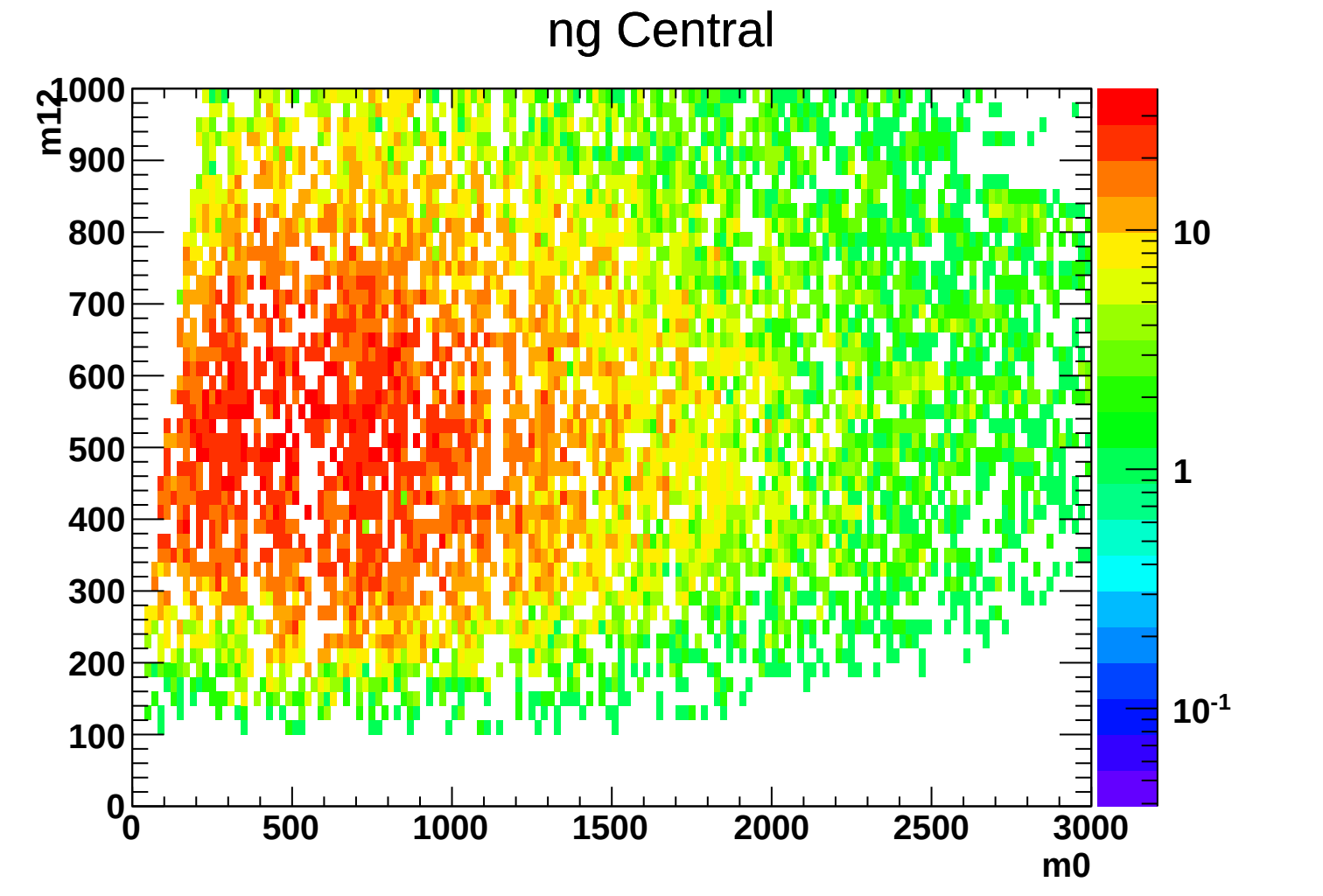
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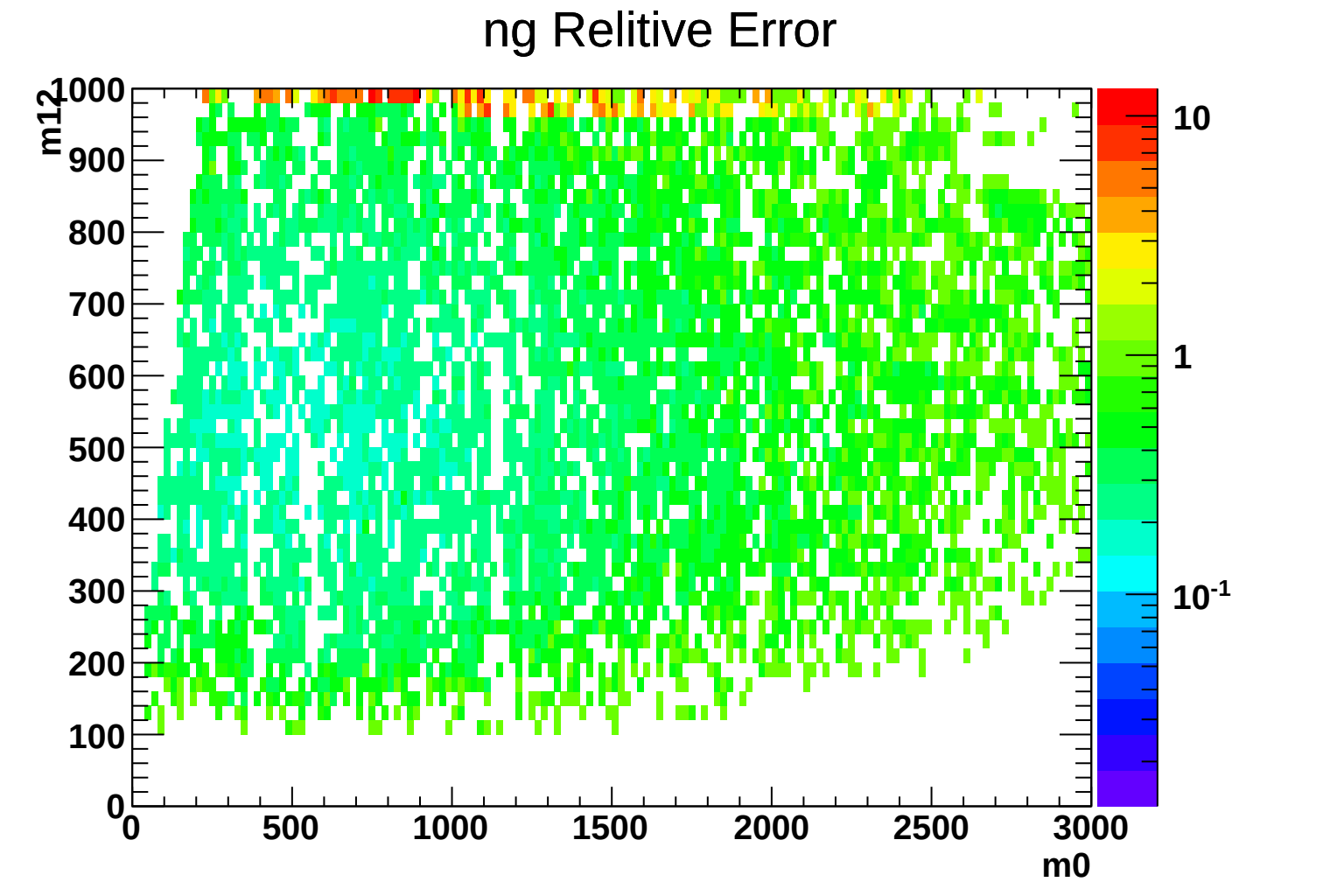
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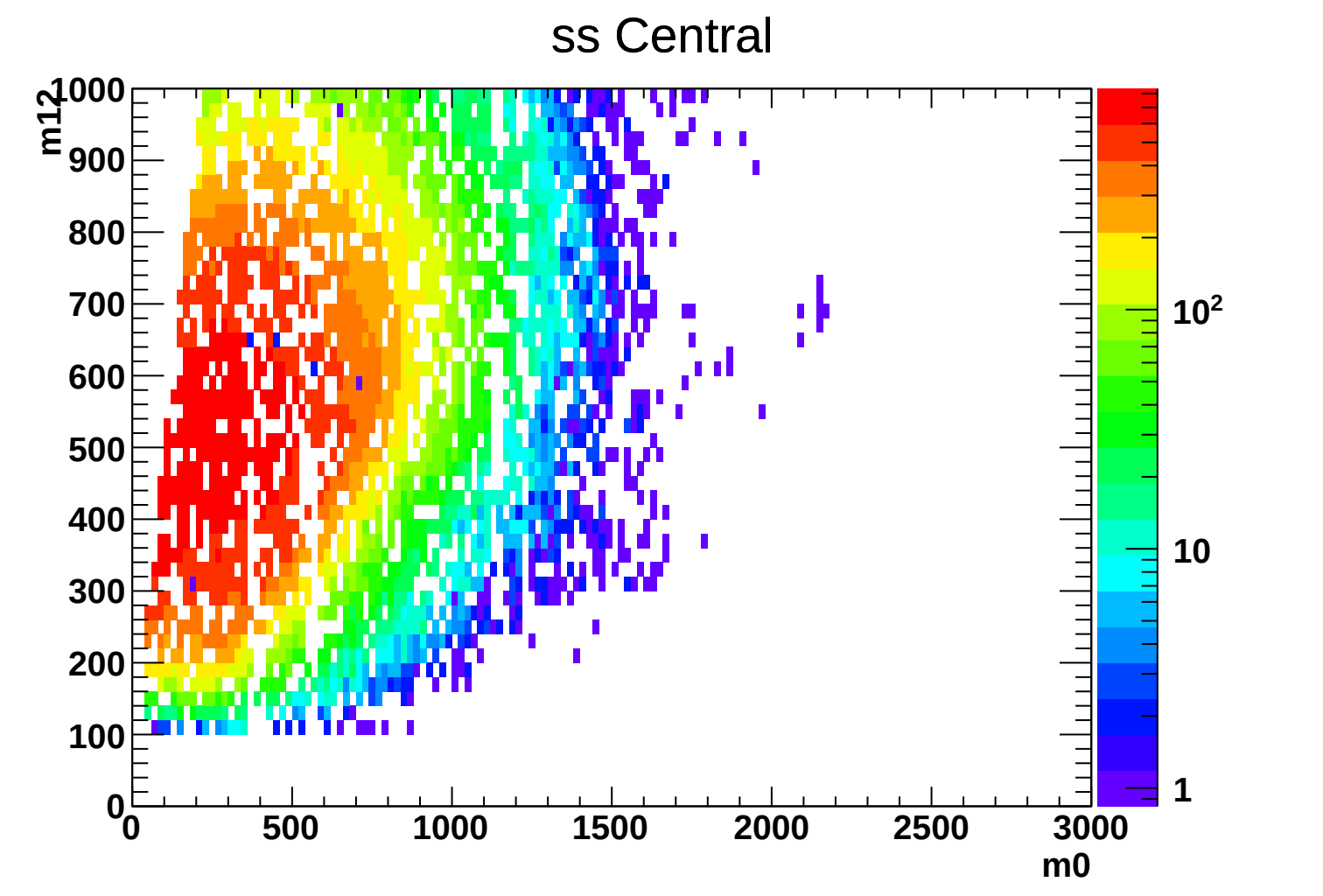
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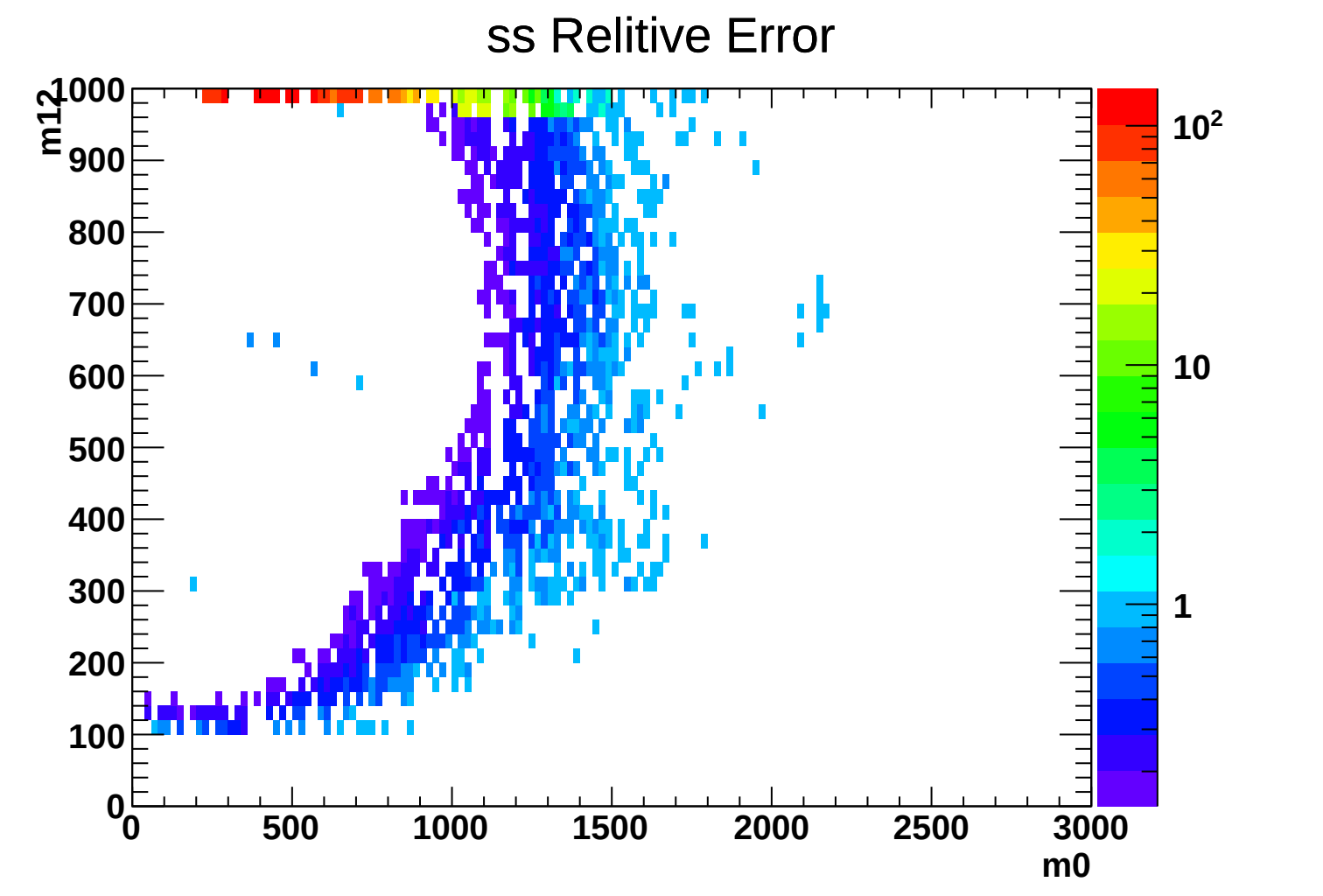
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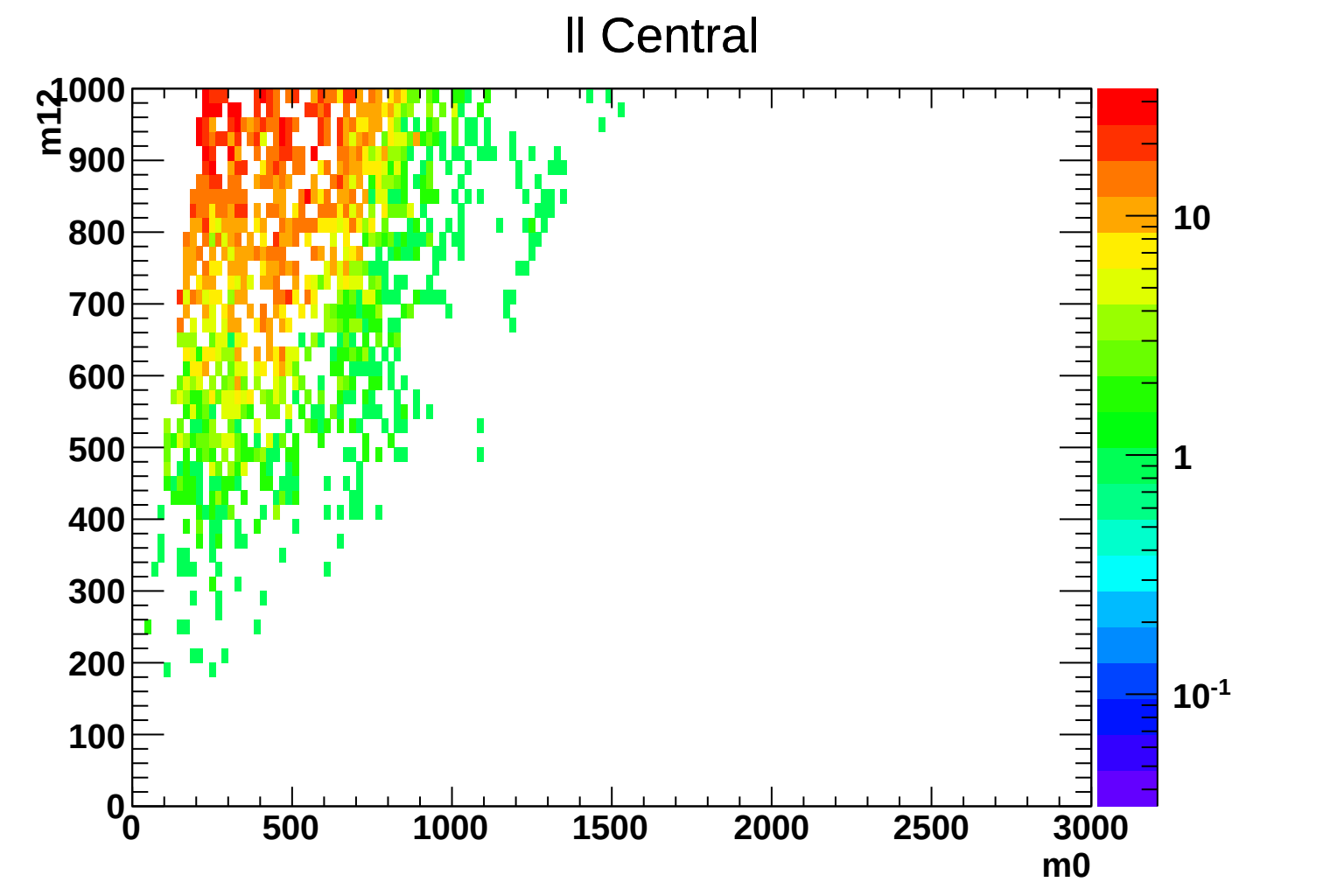
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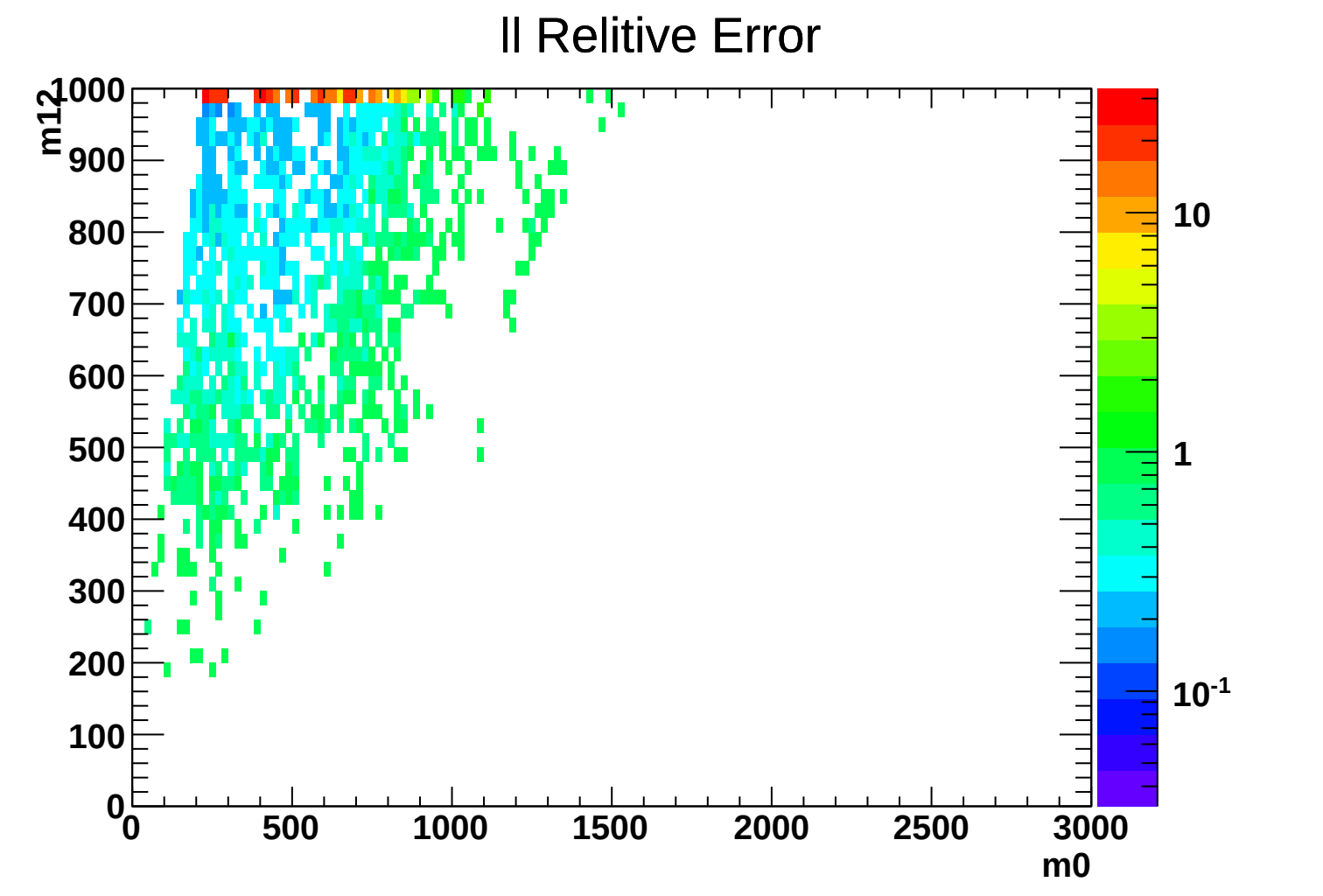
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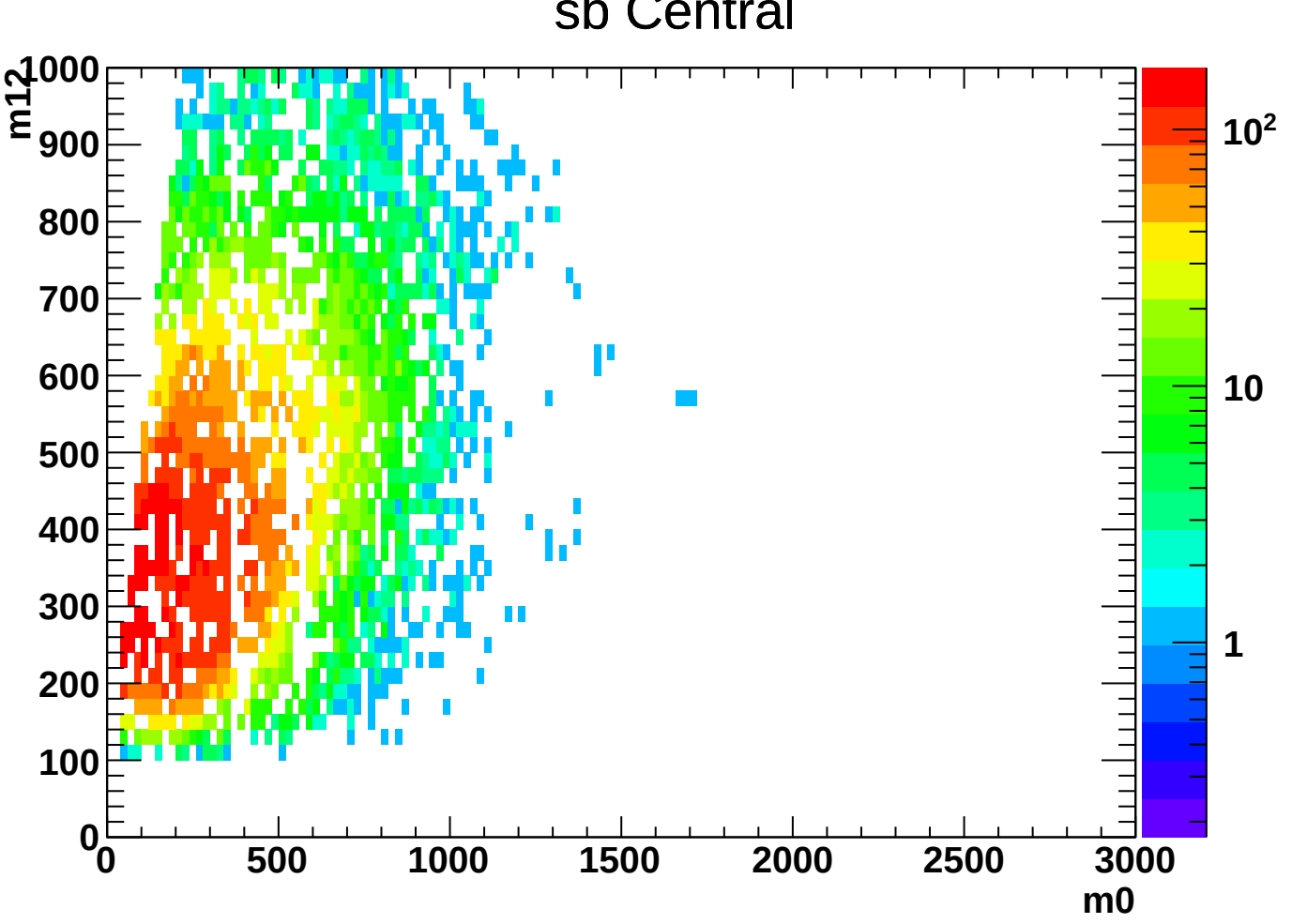
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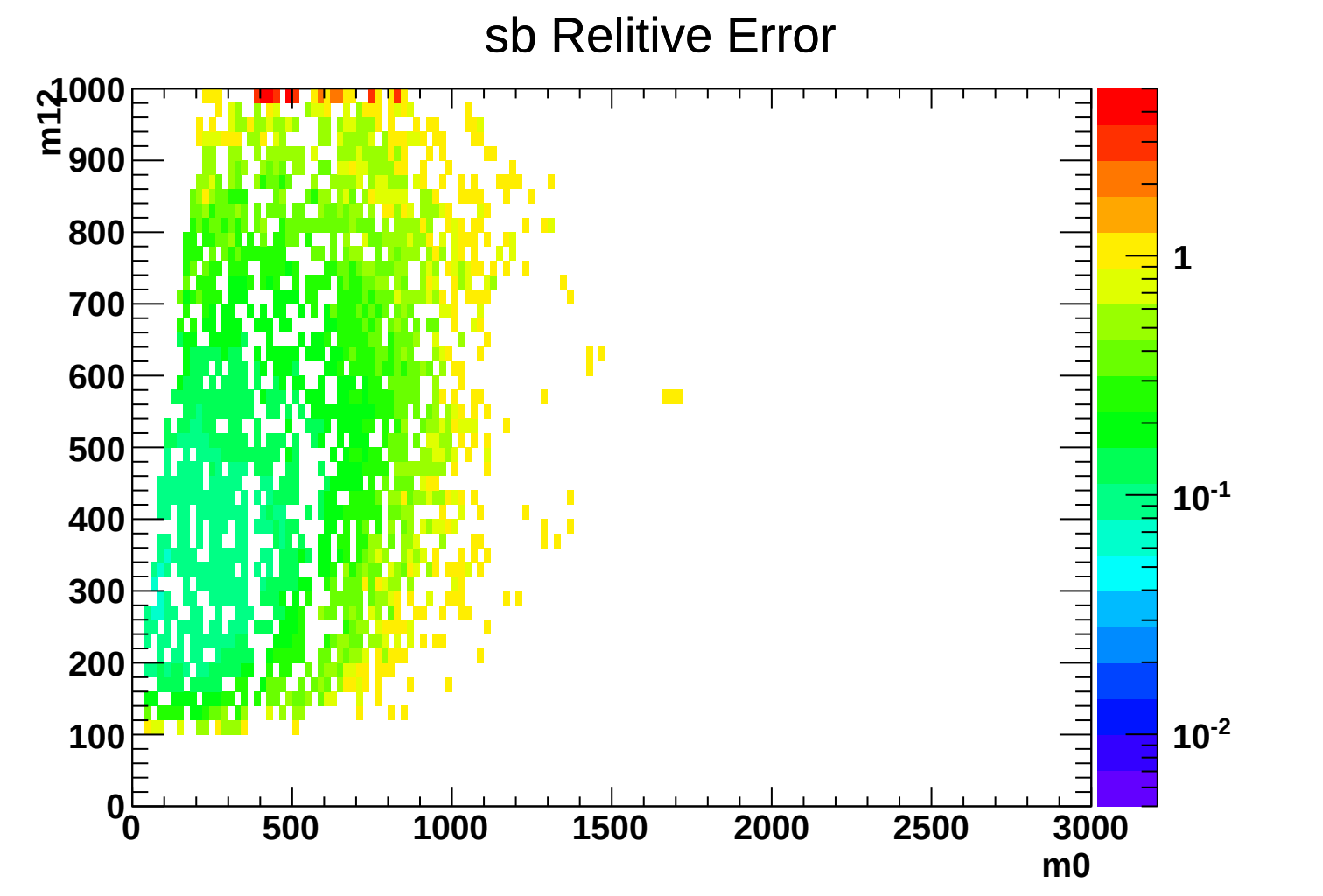
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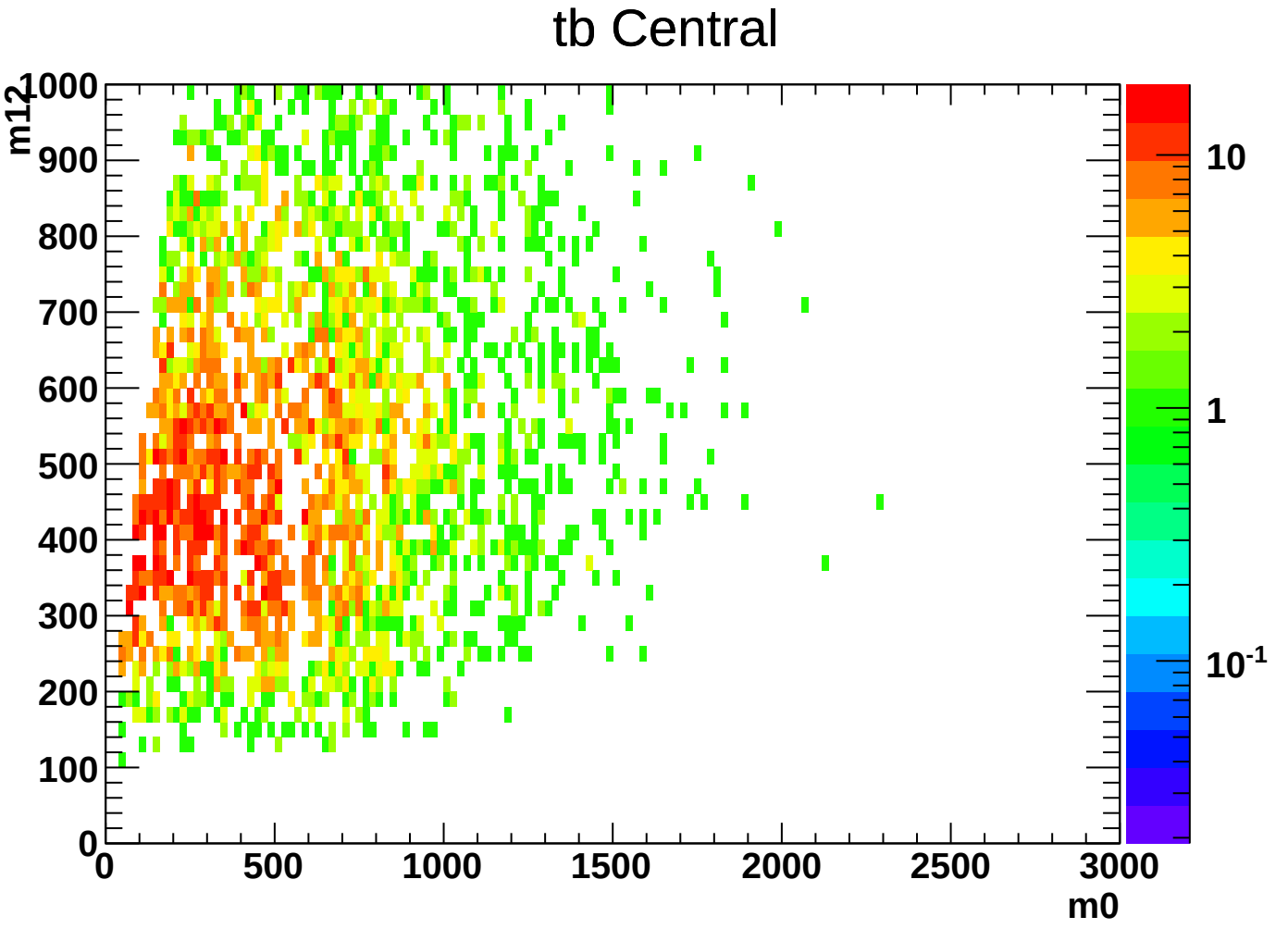
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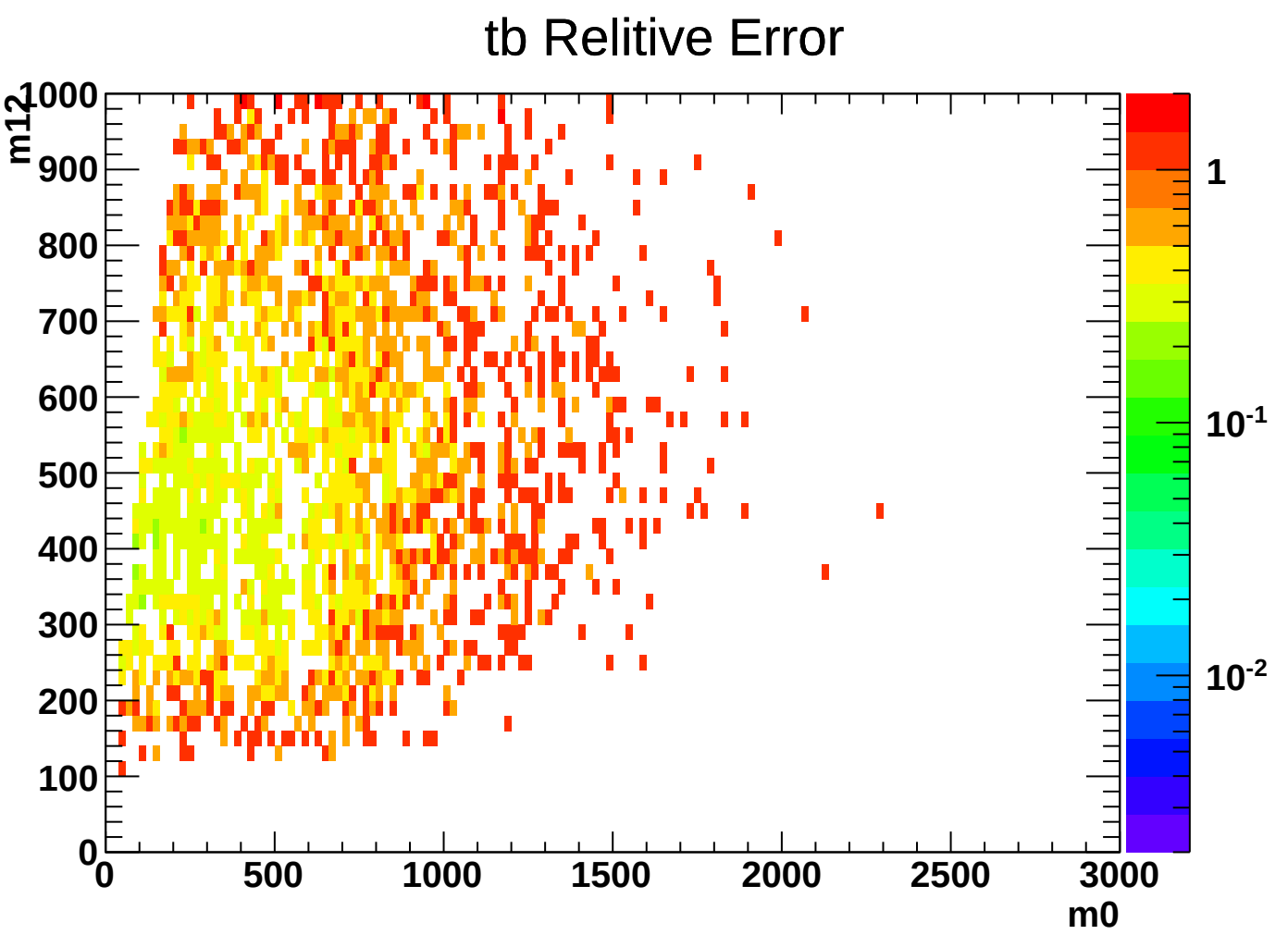
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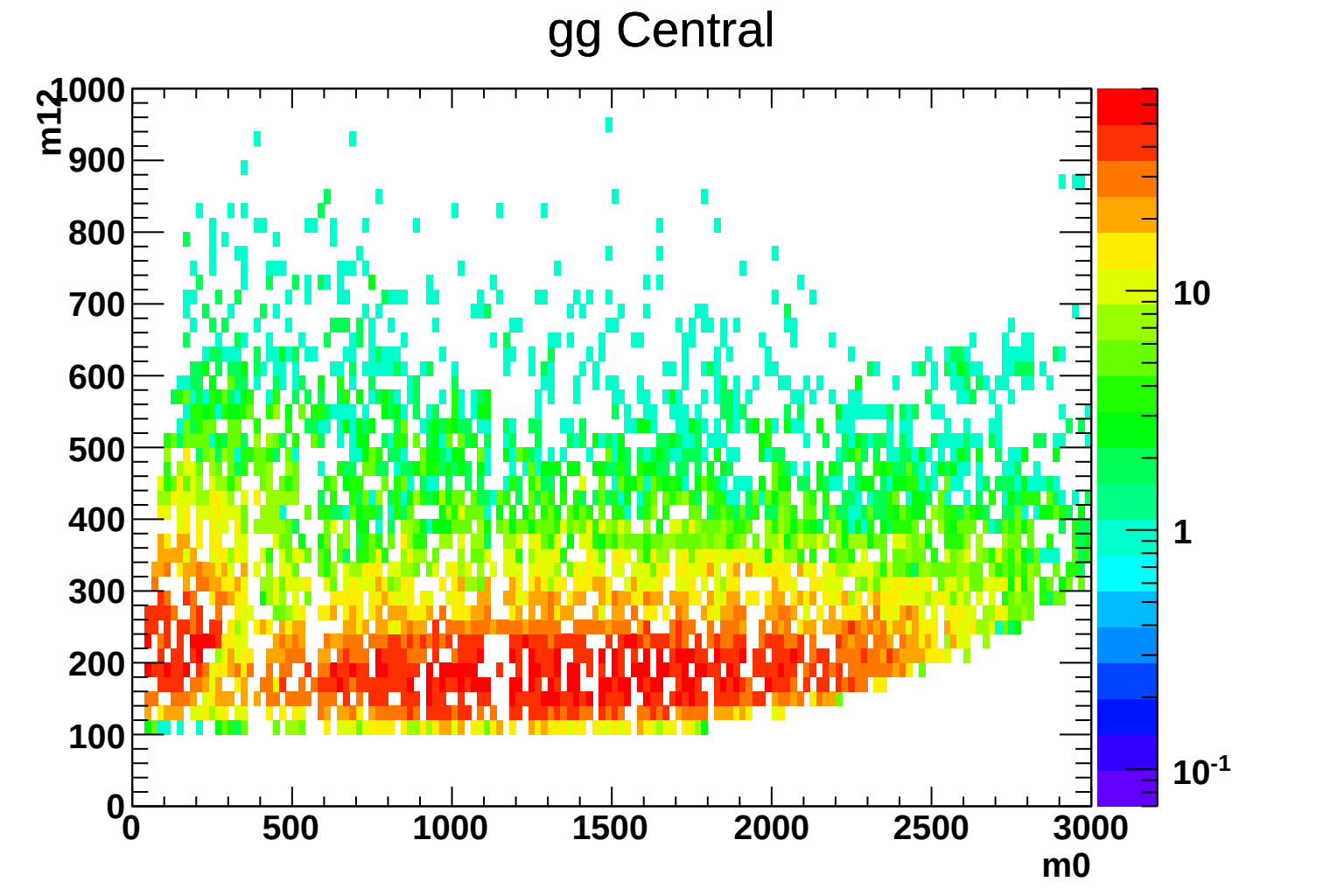
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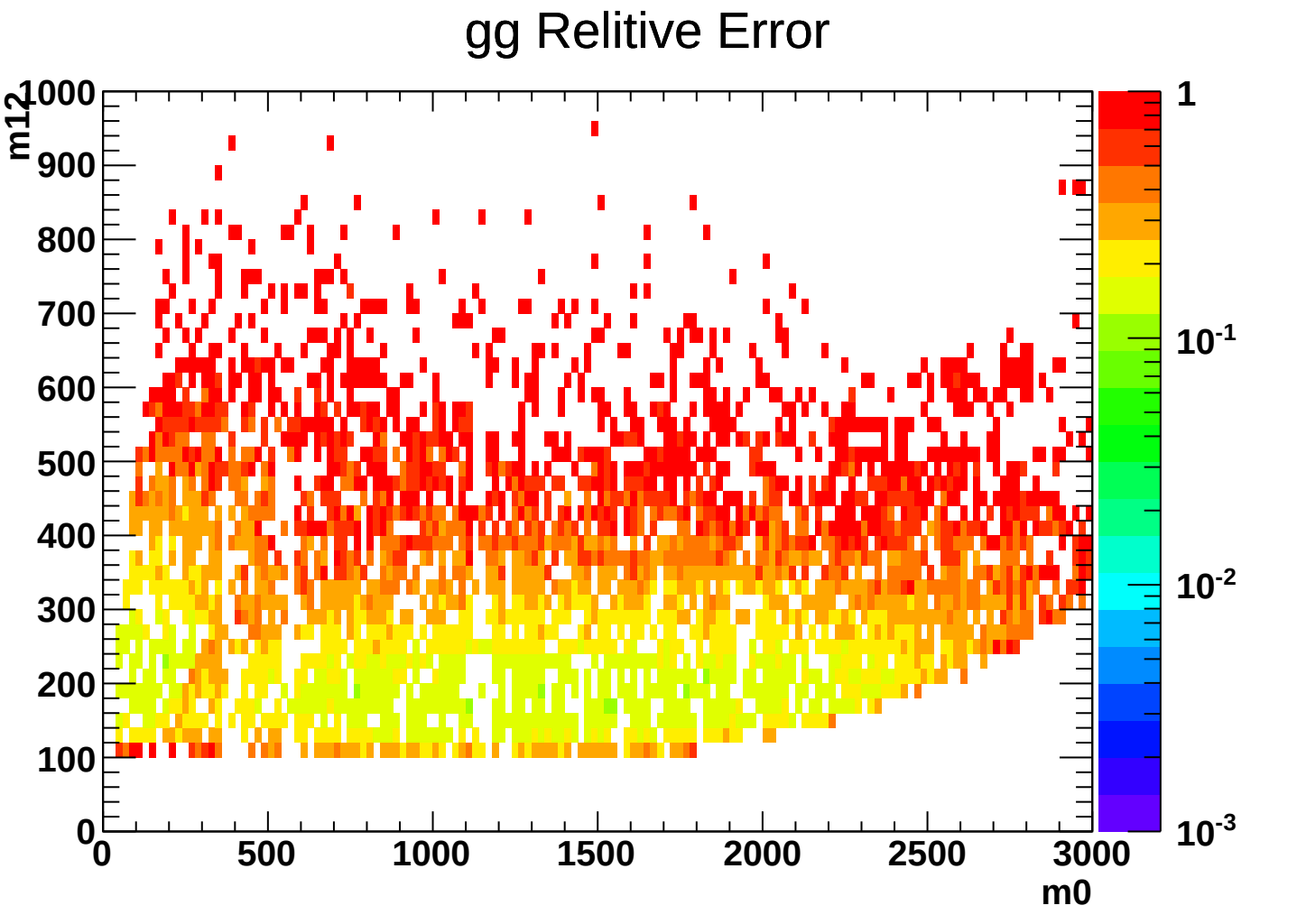
gg Relitive Error
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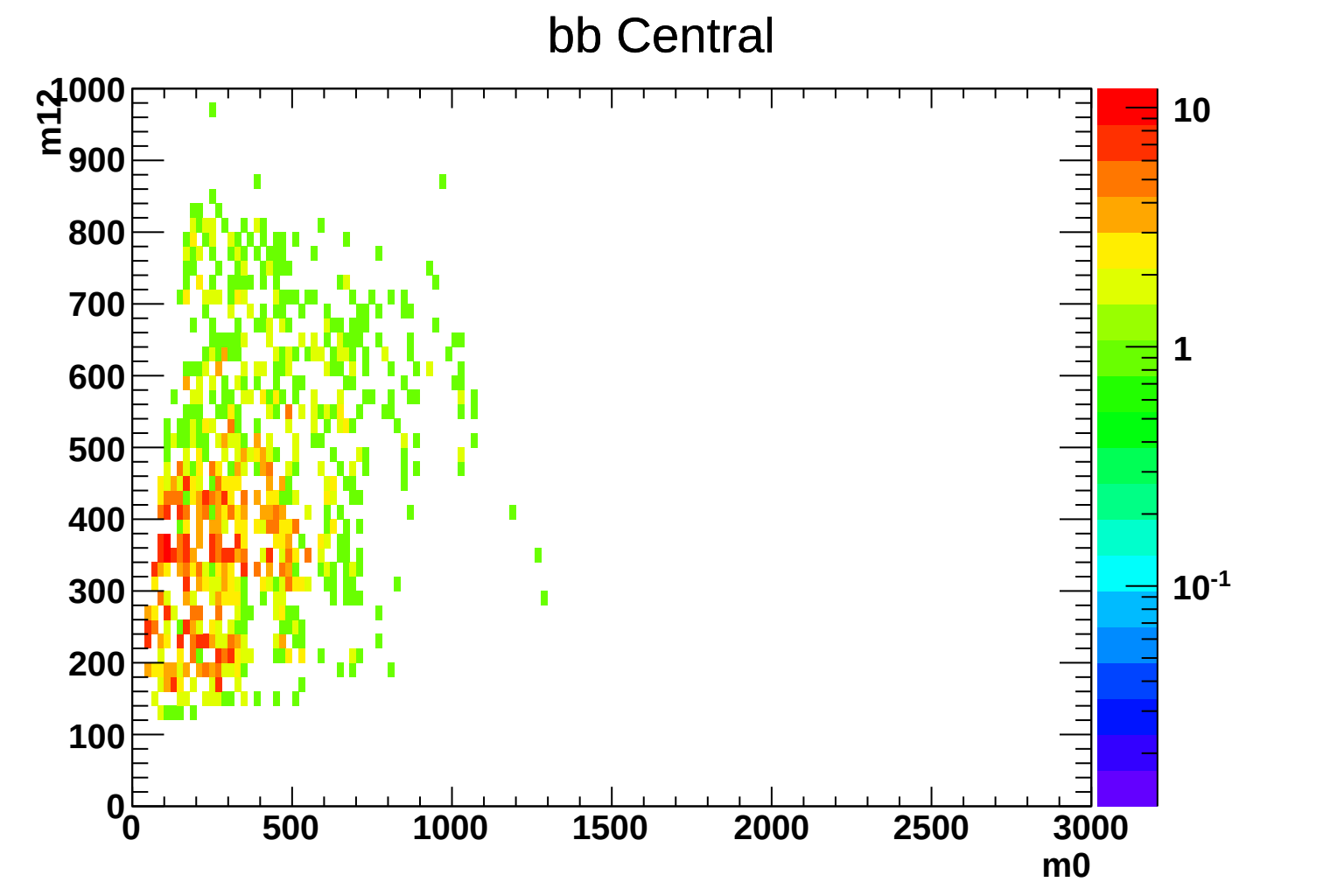
10^{-2}
10^{-3}


bb Central
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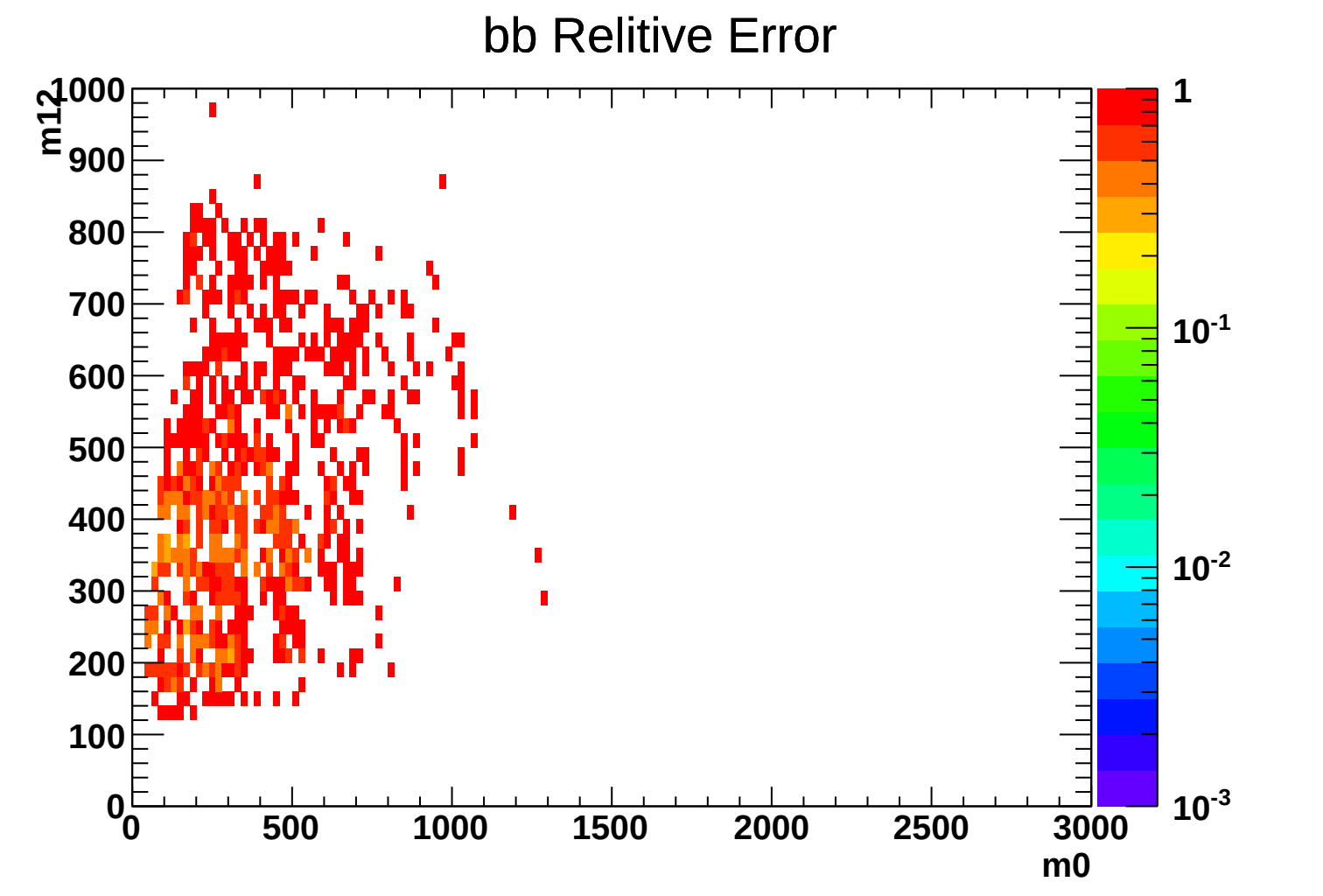
bb Relitive Error
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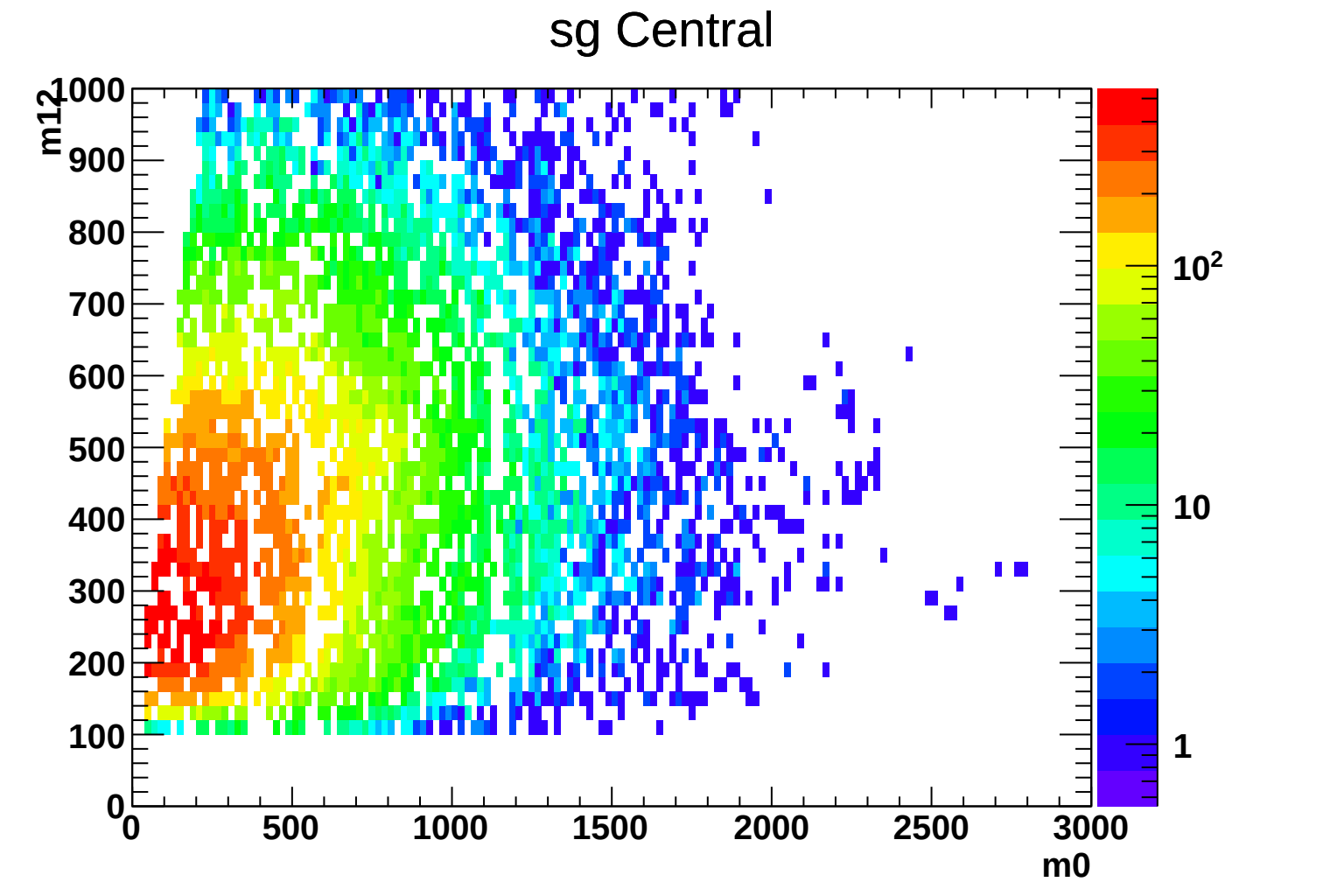
10^{-3}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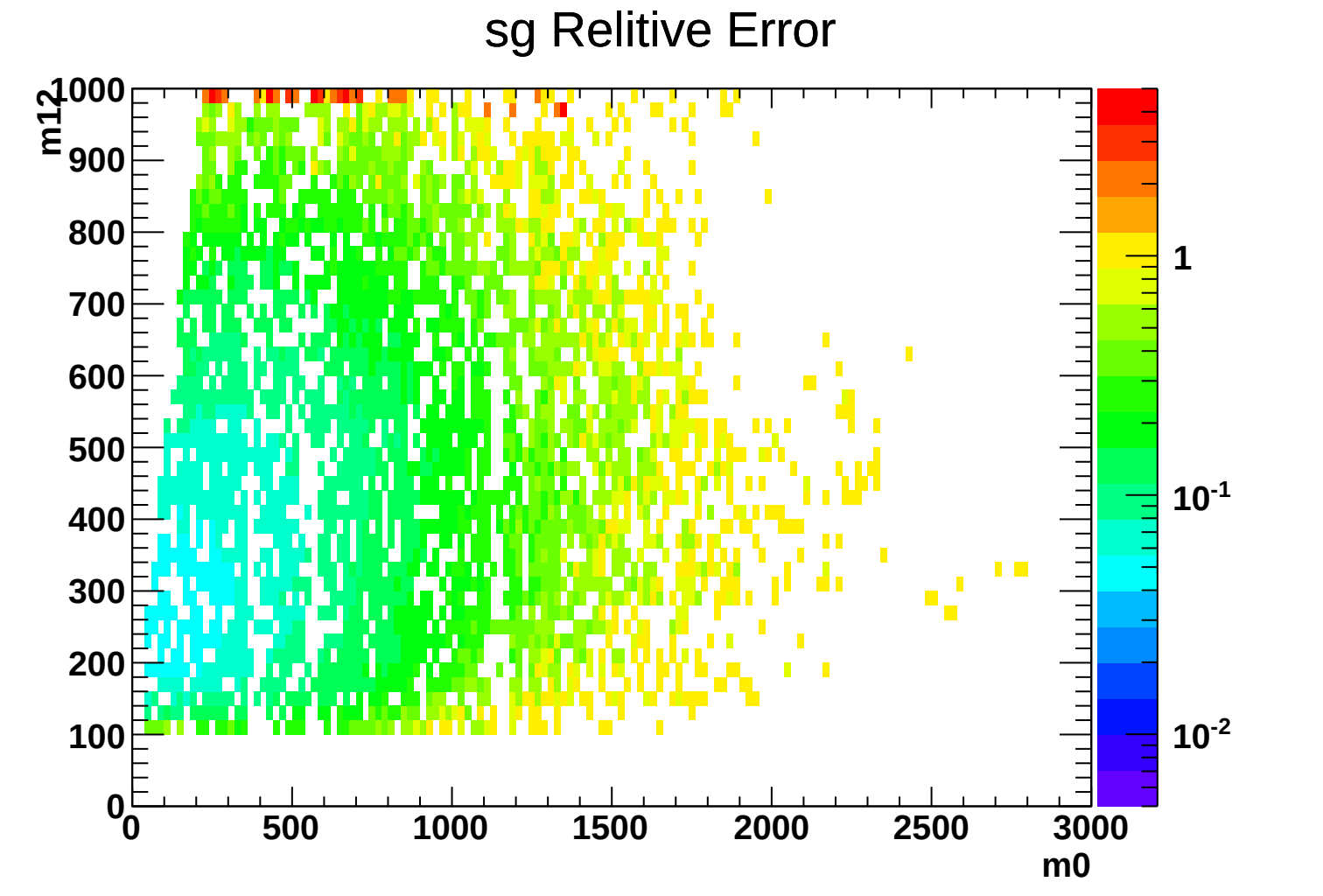
sg Relitive Error
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m0
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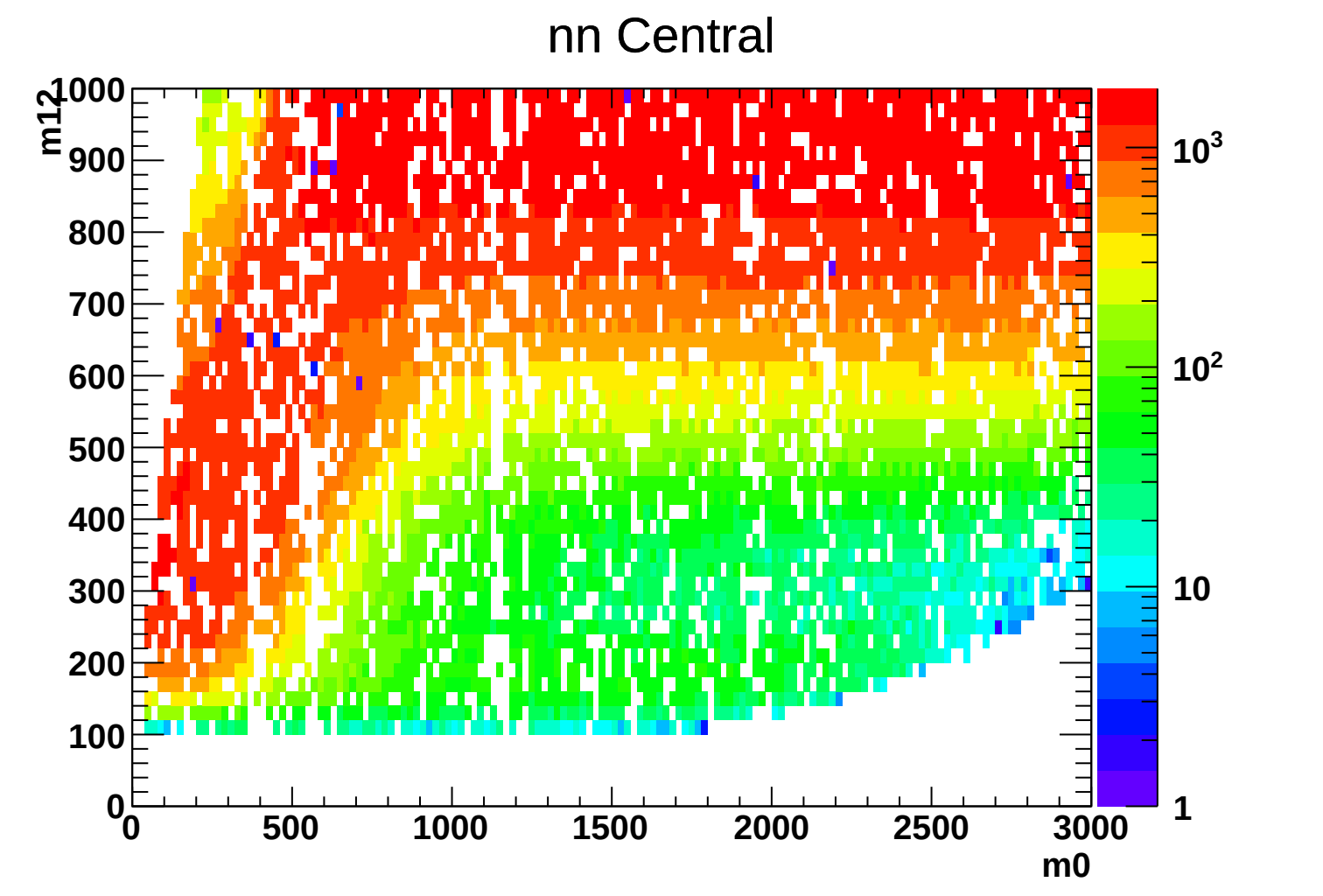
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m0
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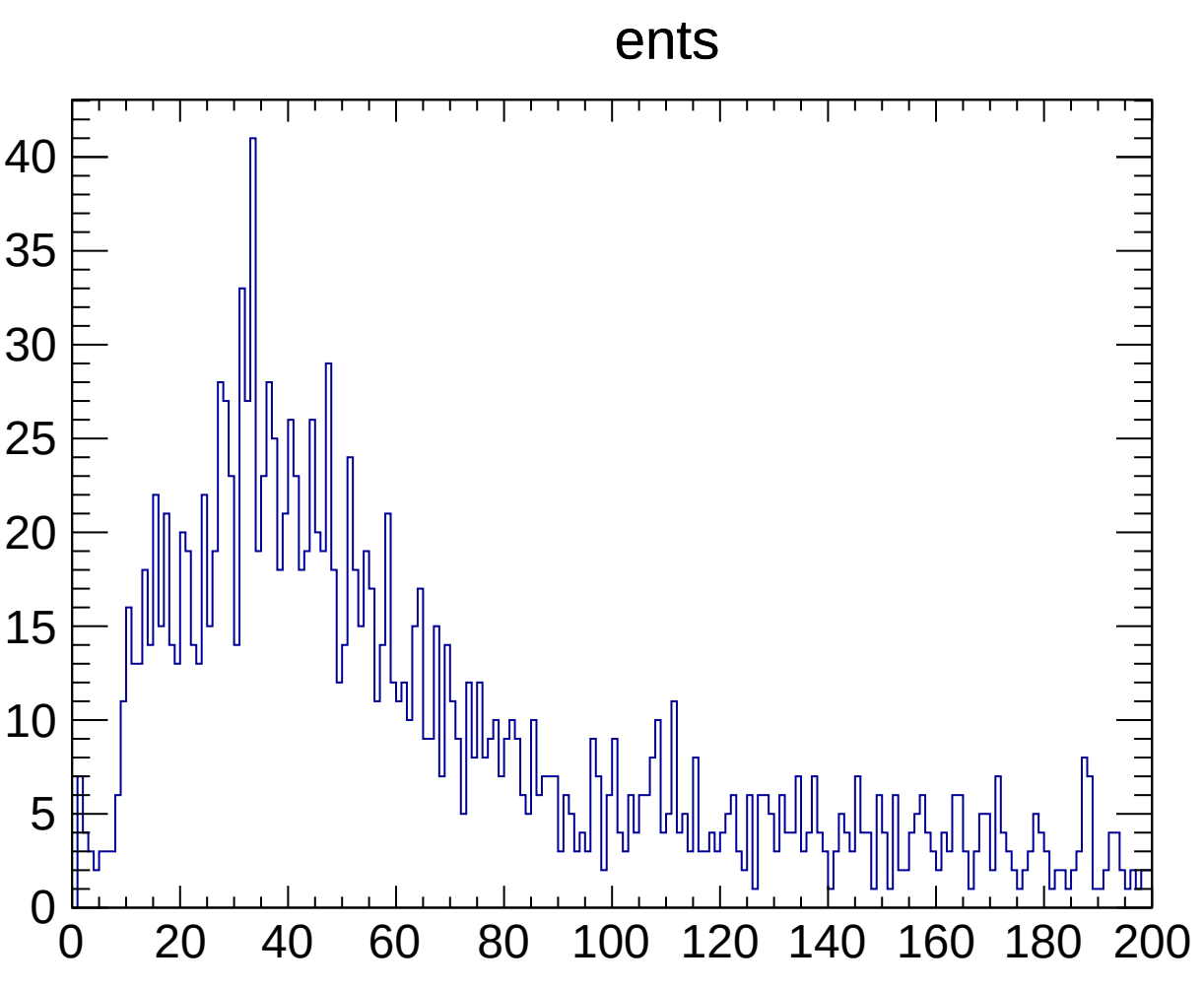
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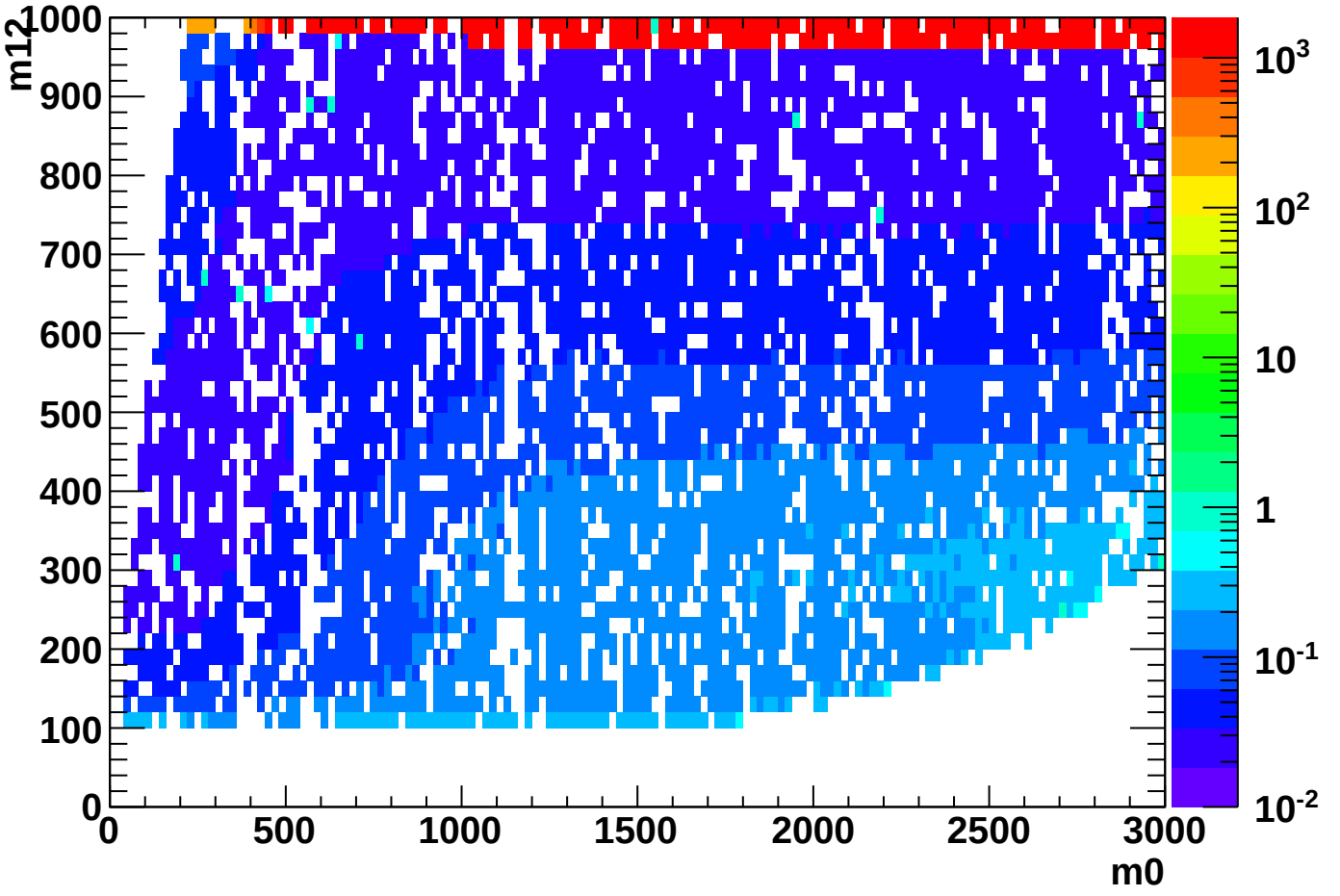
nn Central
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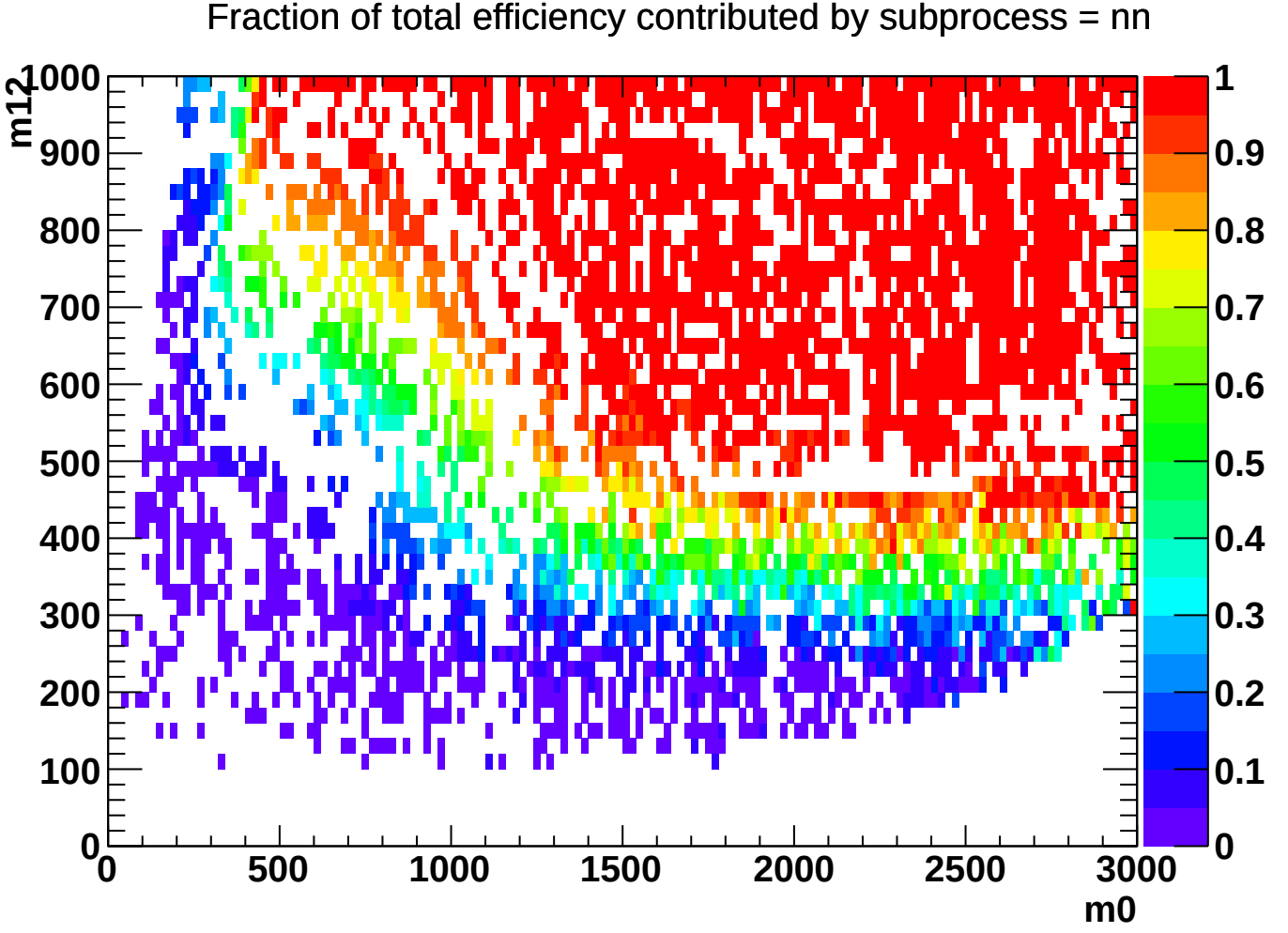
10^{-1}
10^{-2}


Fraction of total efficiency contributed by subprocess = nn
m12
m0
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500
1000
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0.8
0.9
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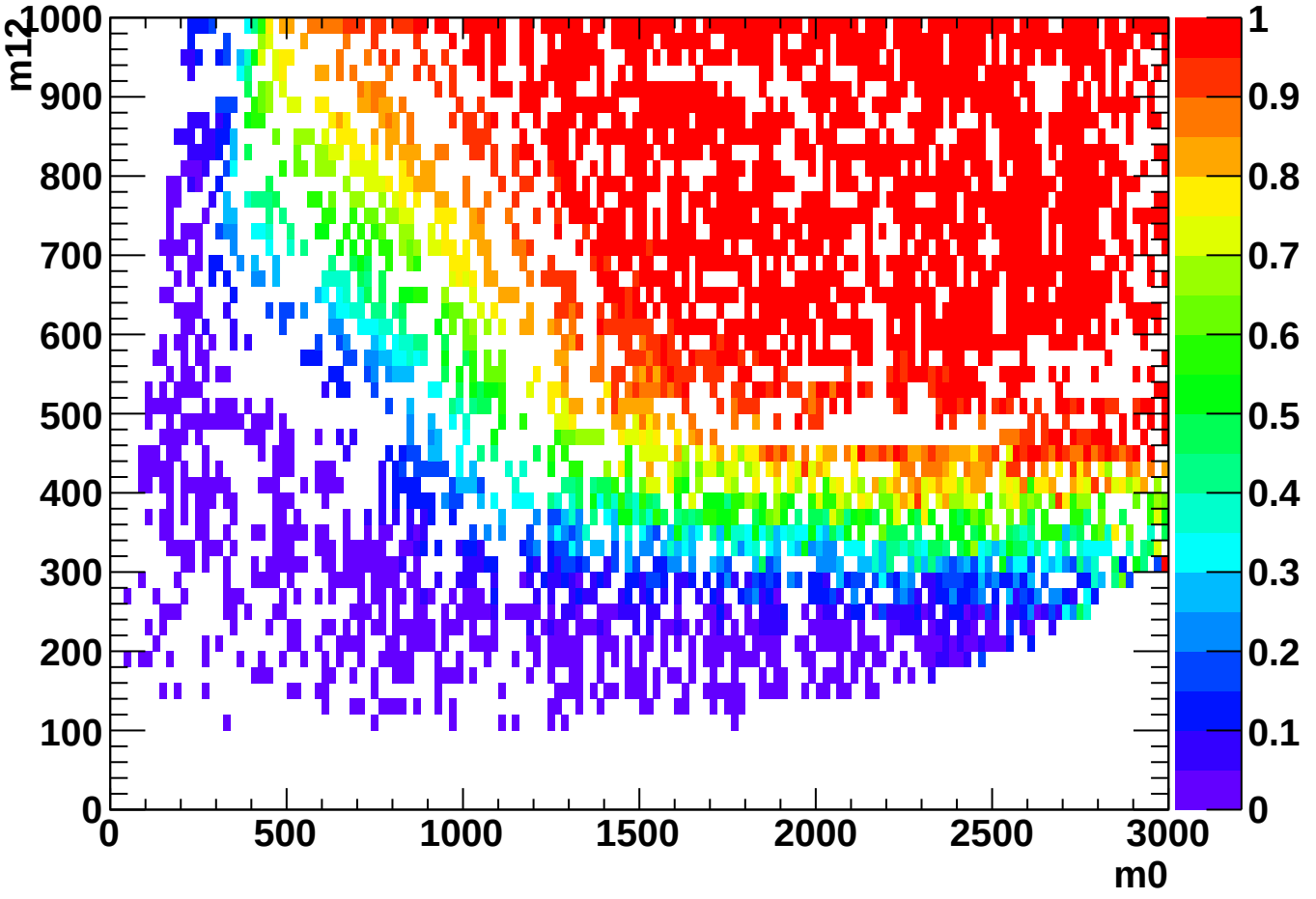
Fraction of total cross section nn
m12
m0
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1000
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1000
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0.2
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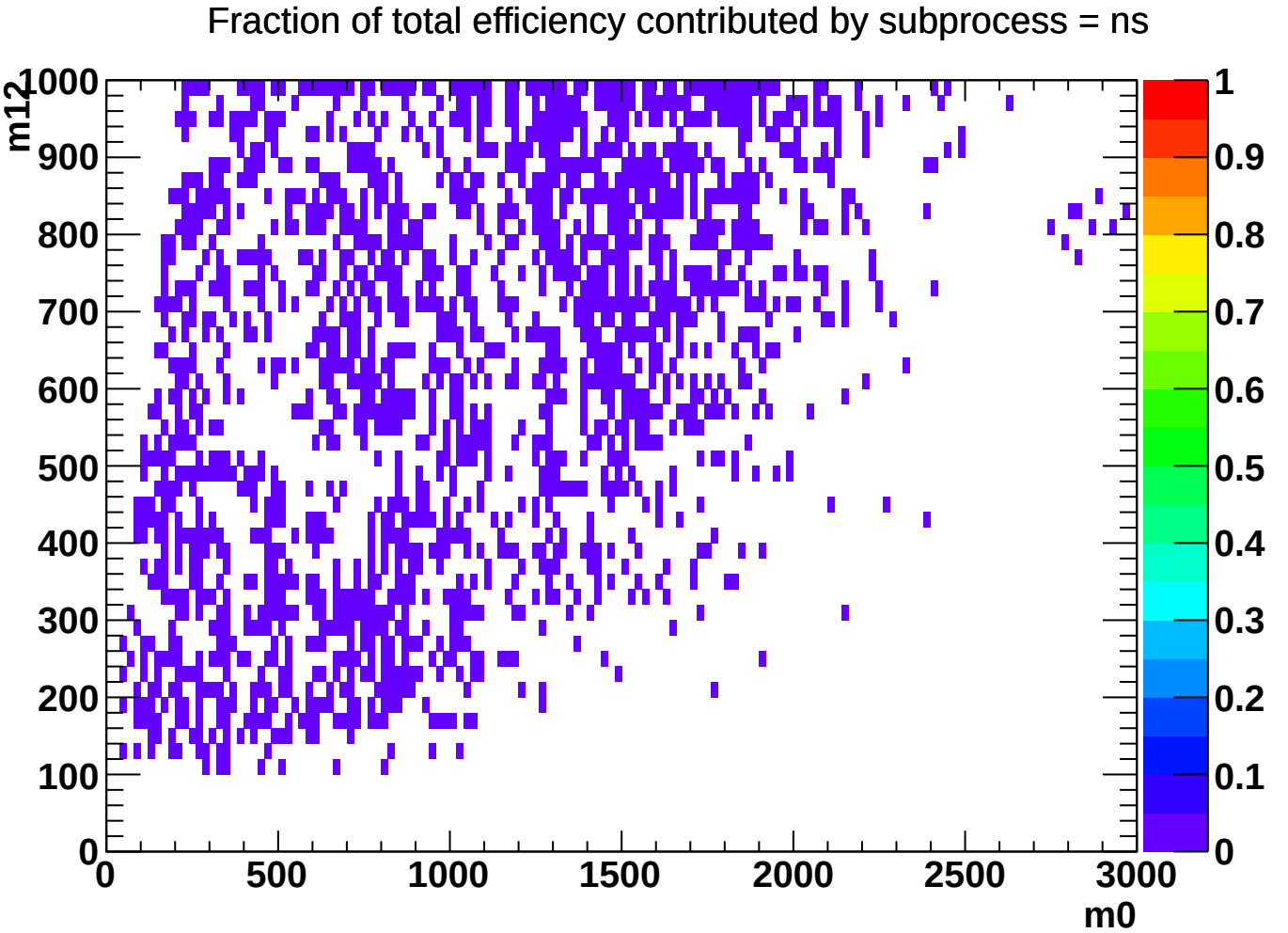
0


Fraction of total efficiency contributed by subprocess = ns
m12
m0
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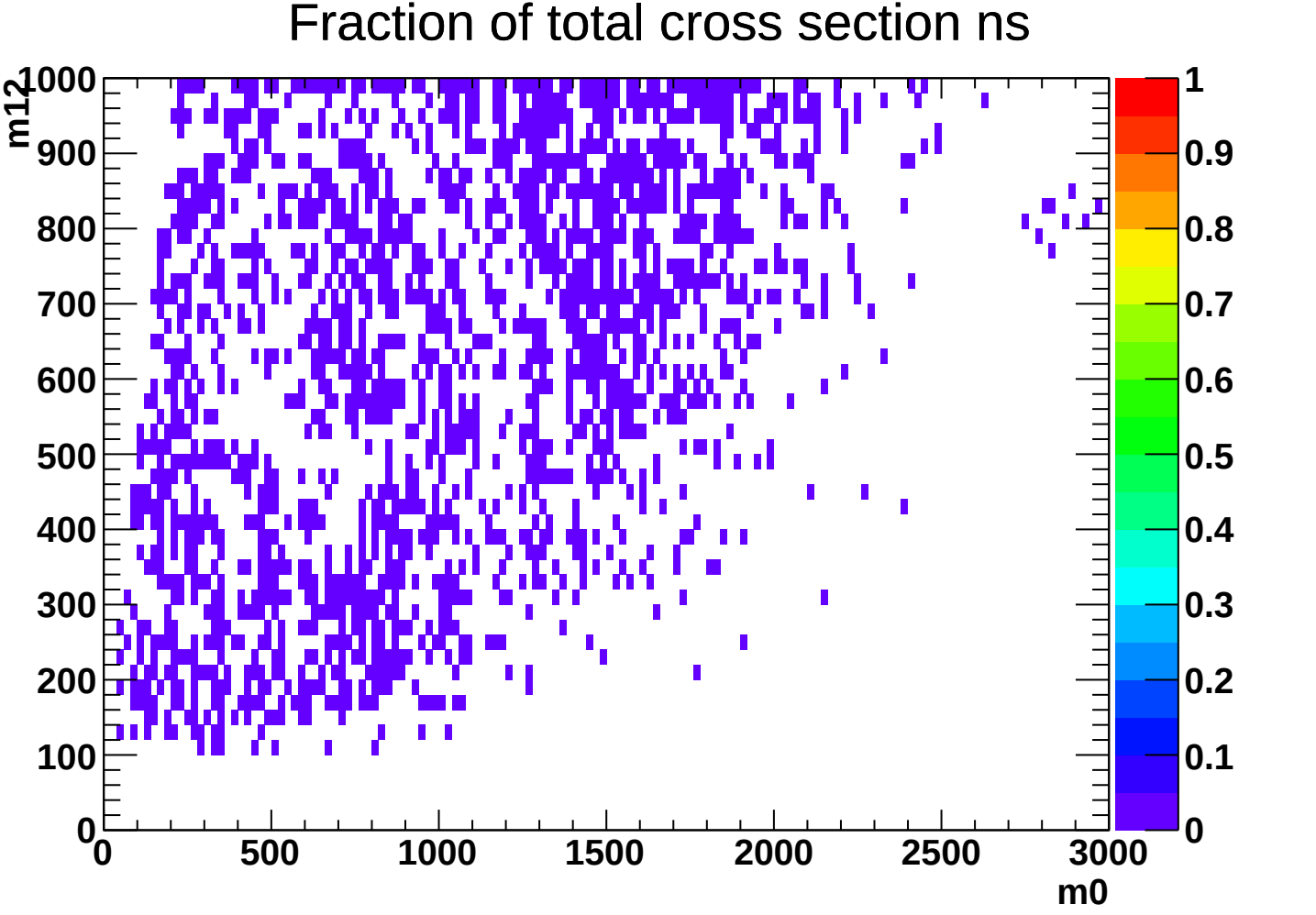
1


Fraction of total cross section ns
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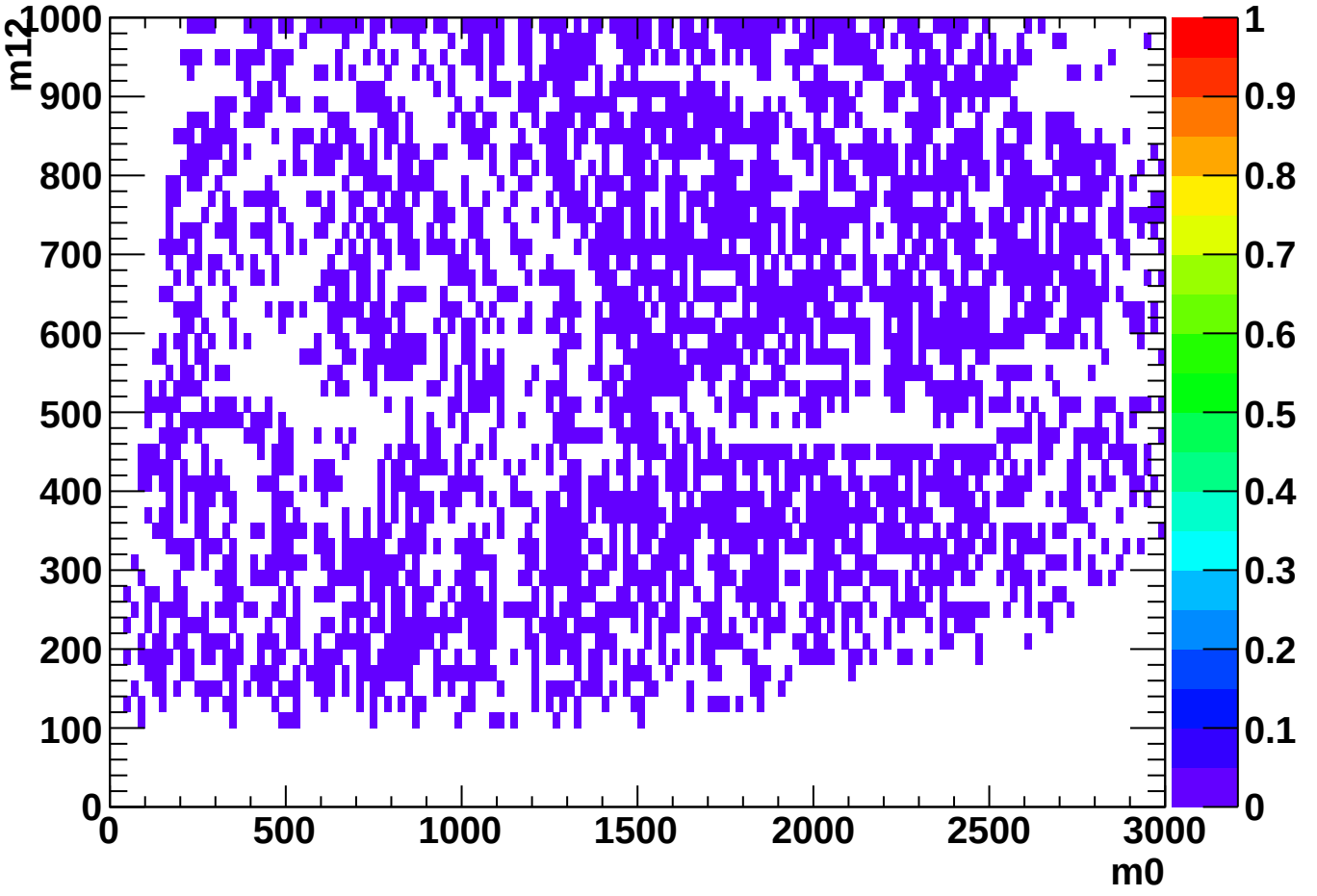
Fraction of total efficiency contributed by subprocess = ng
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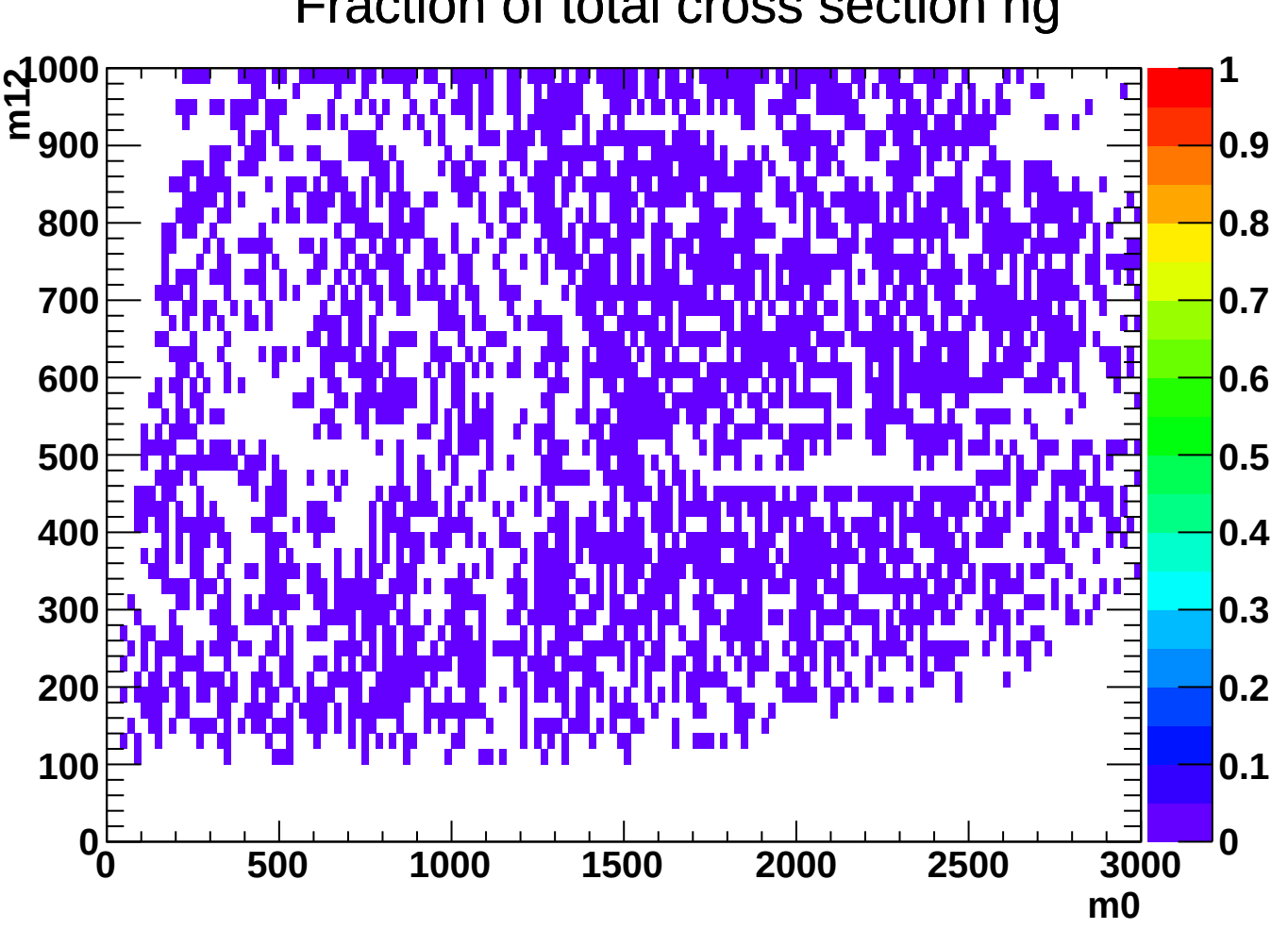
Fraction of total cross section ng
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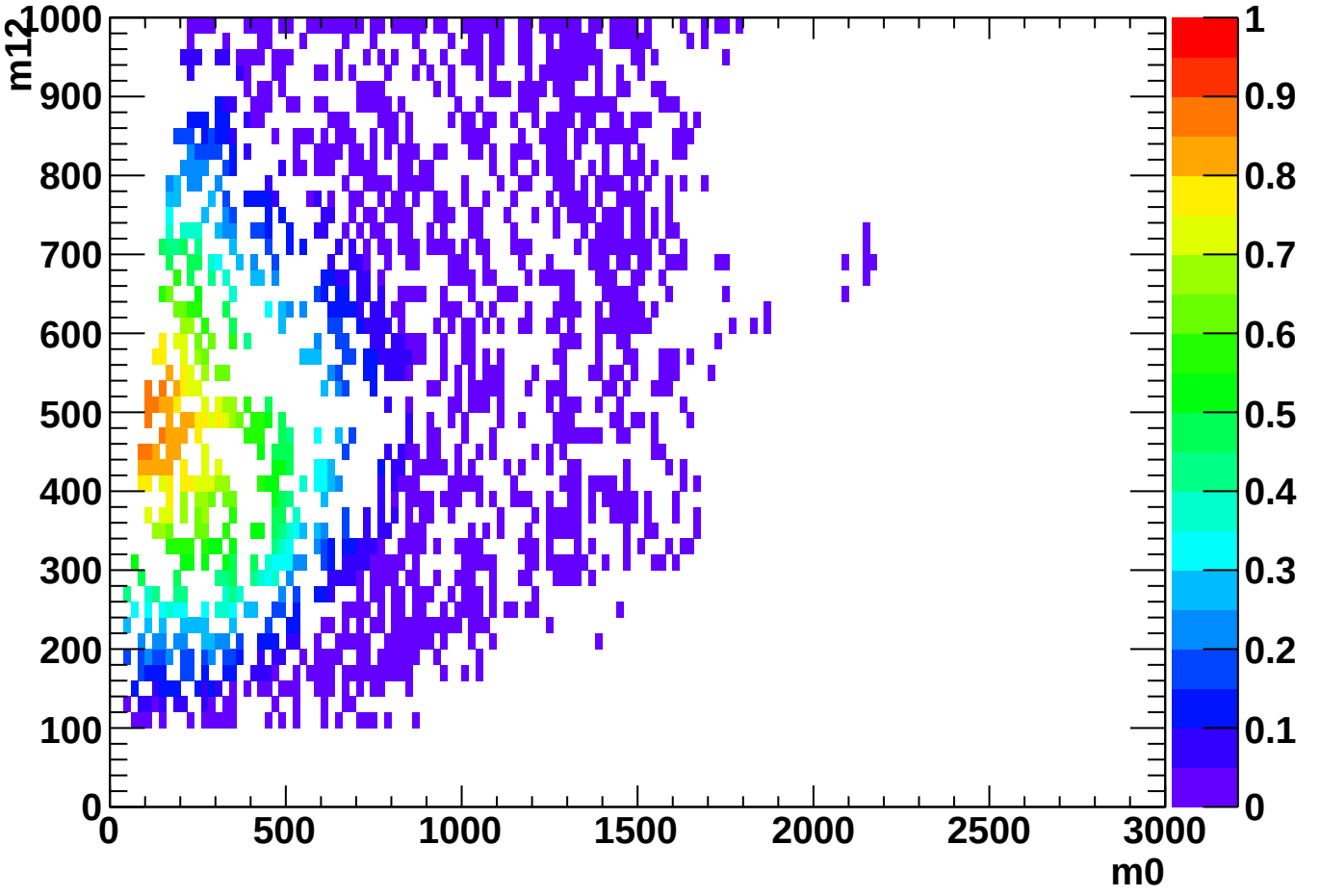
Fraction of total efficiency contributed by subprocess = ss
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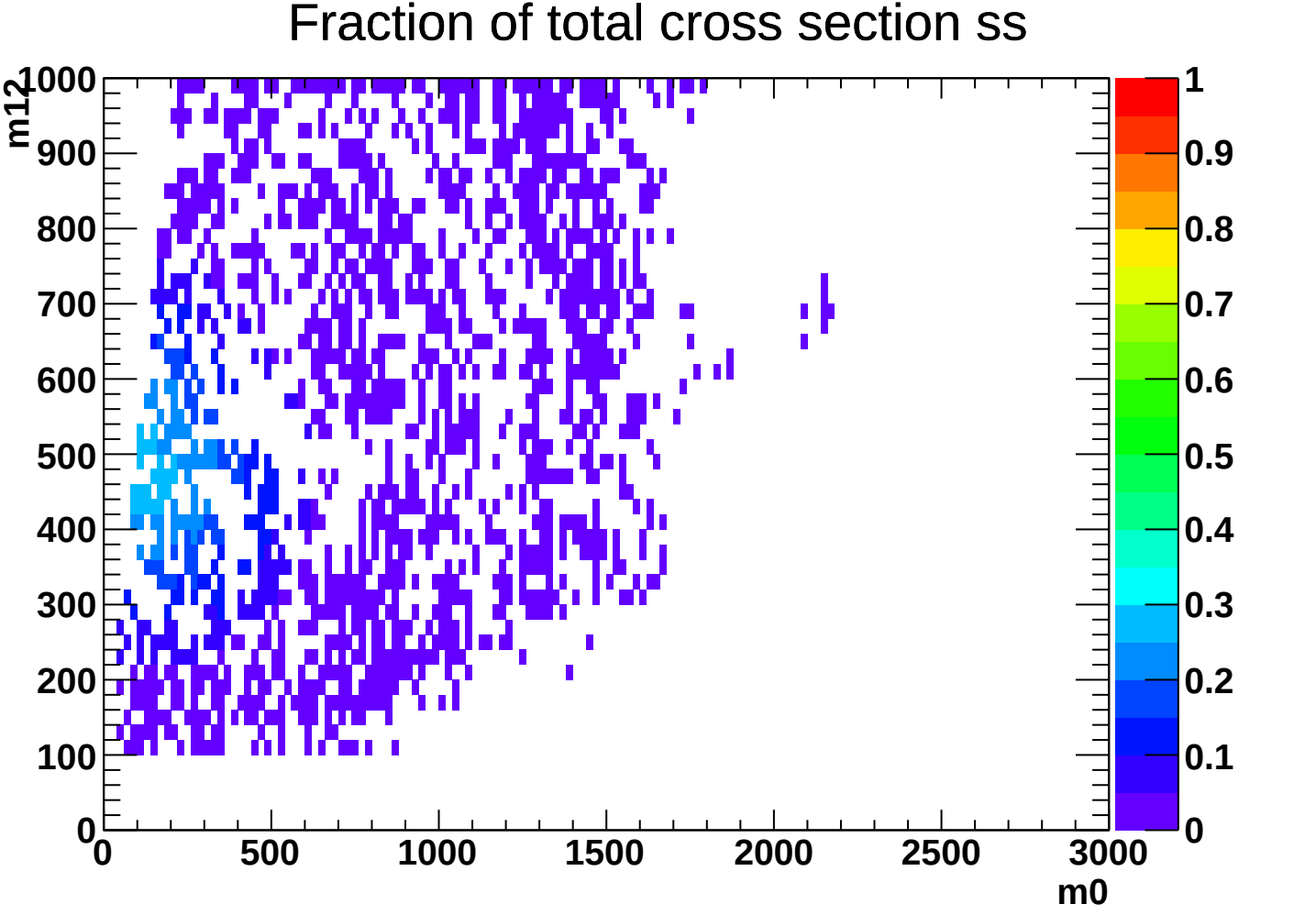
Fraction of total cross section ss
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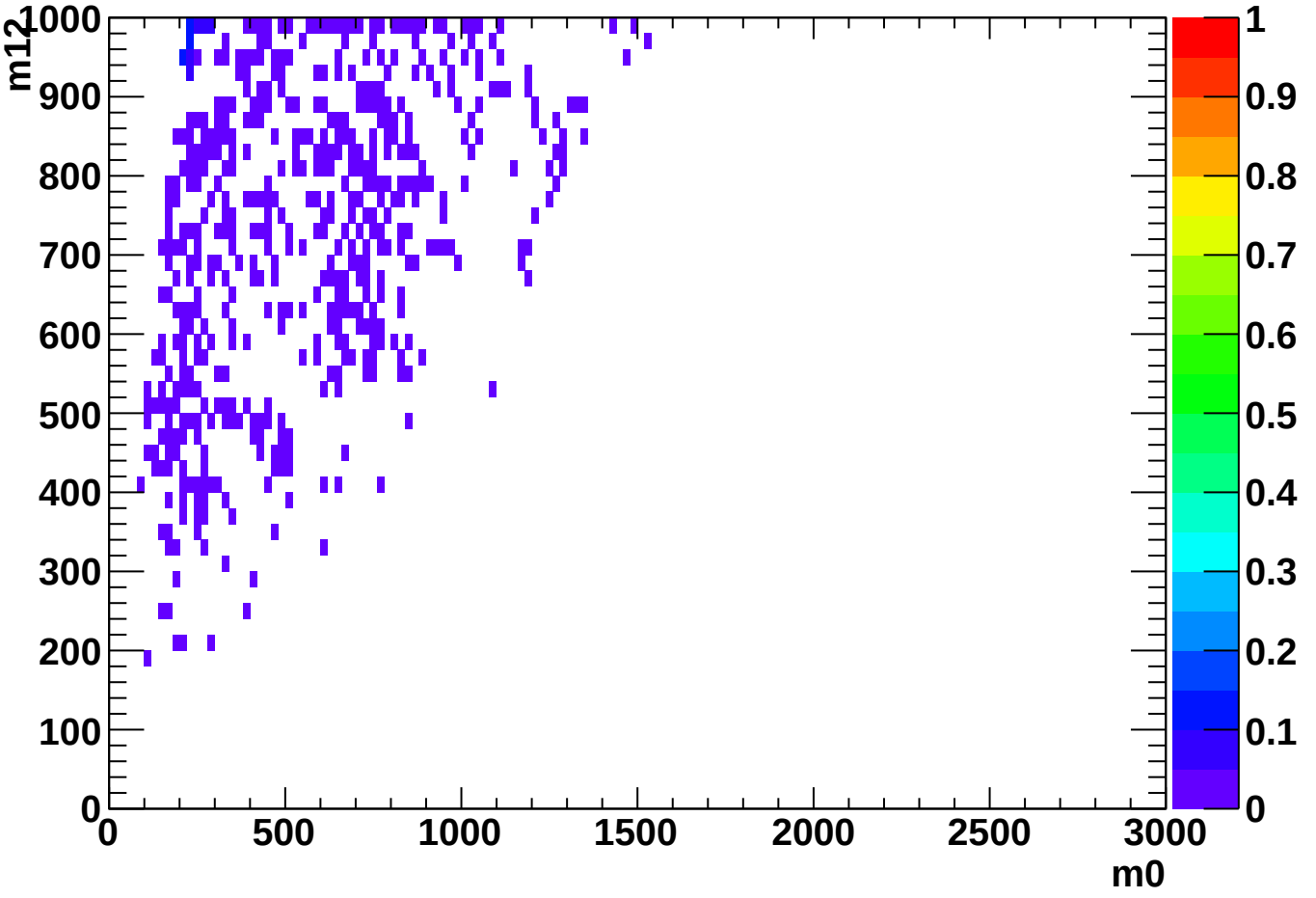
Fraction of total efficiency contributed by subprocess = ll
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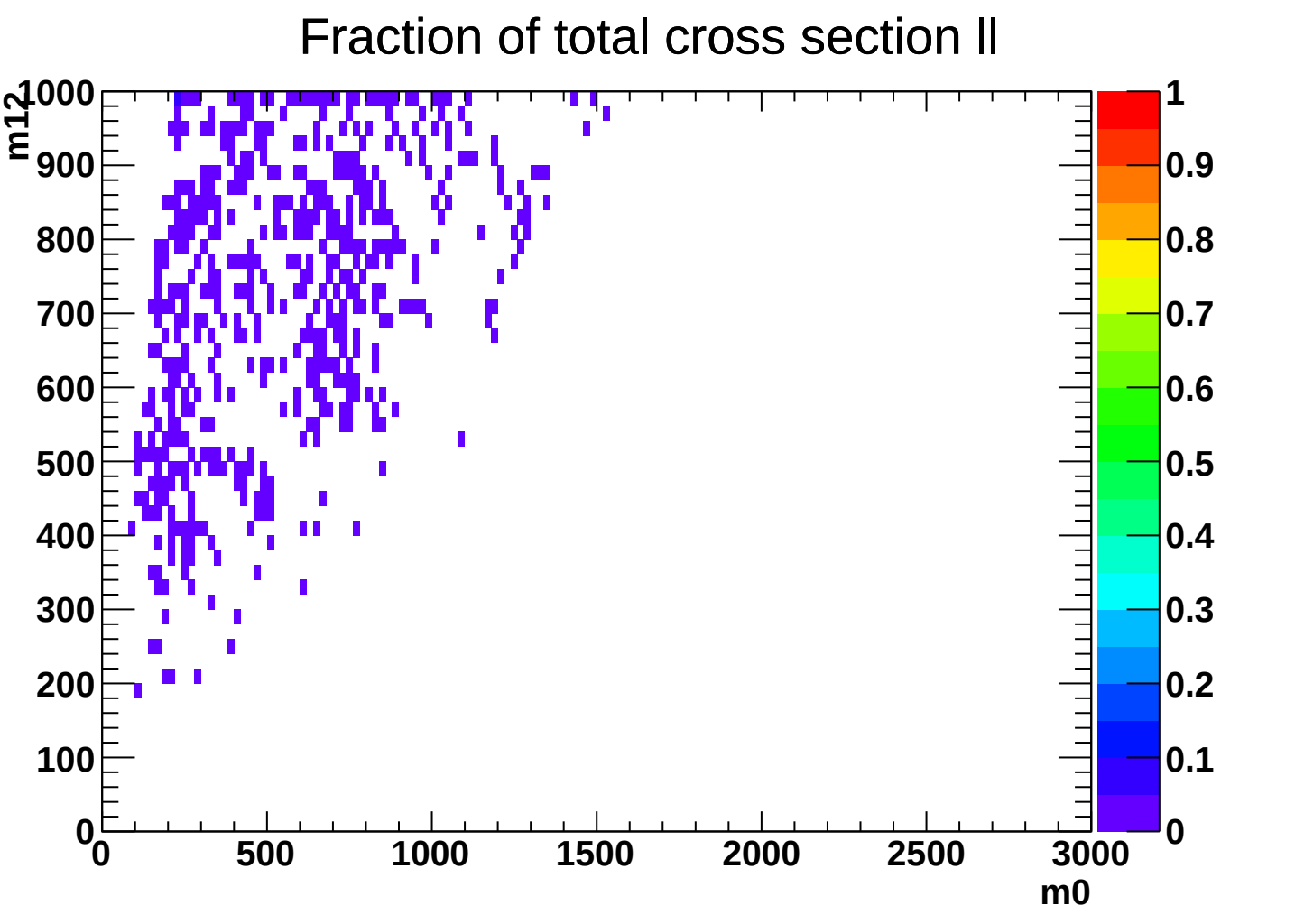
Fraction of total cross section ll
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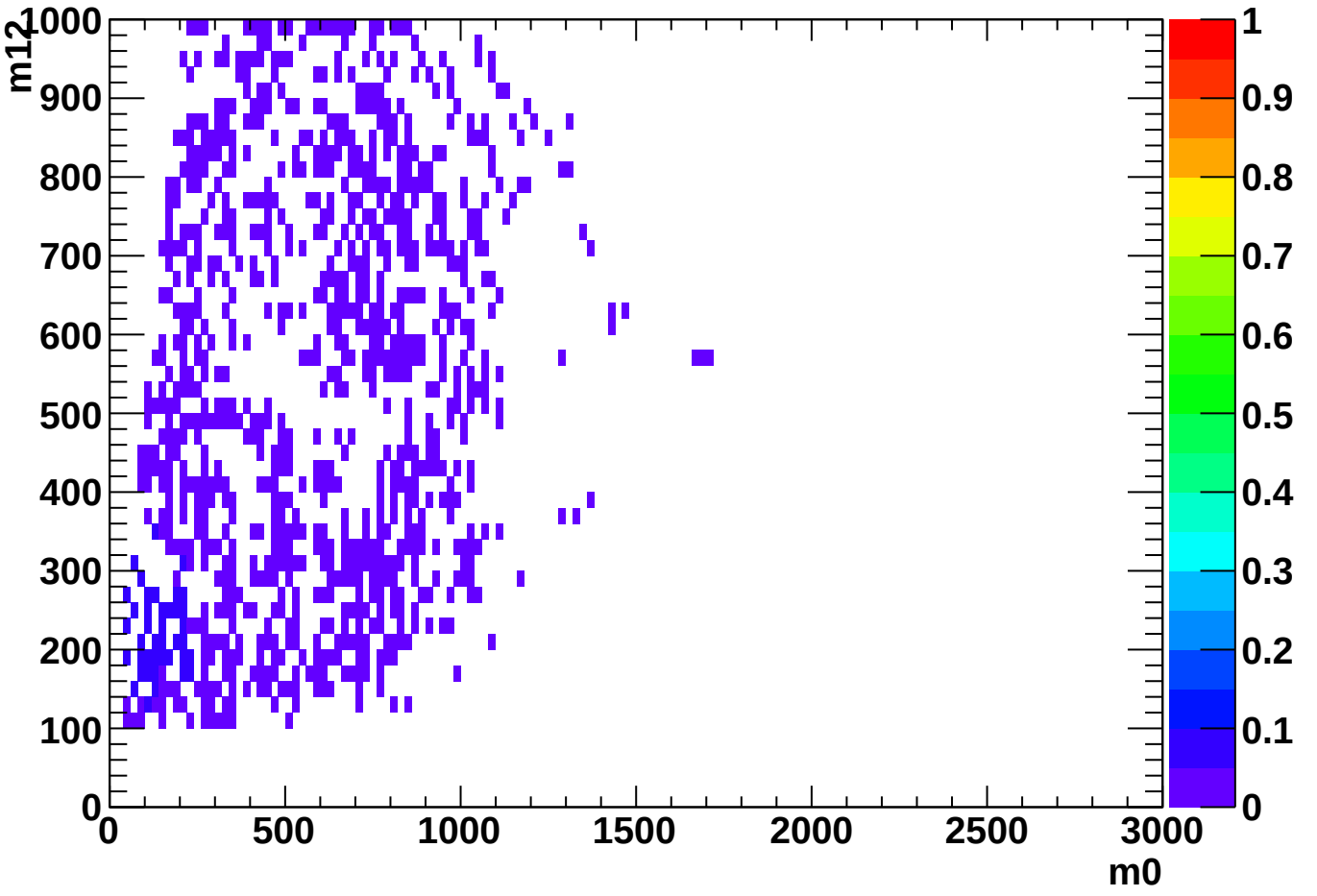
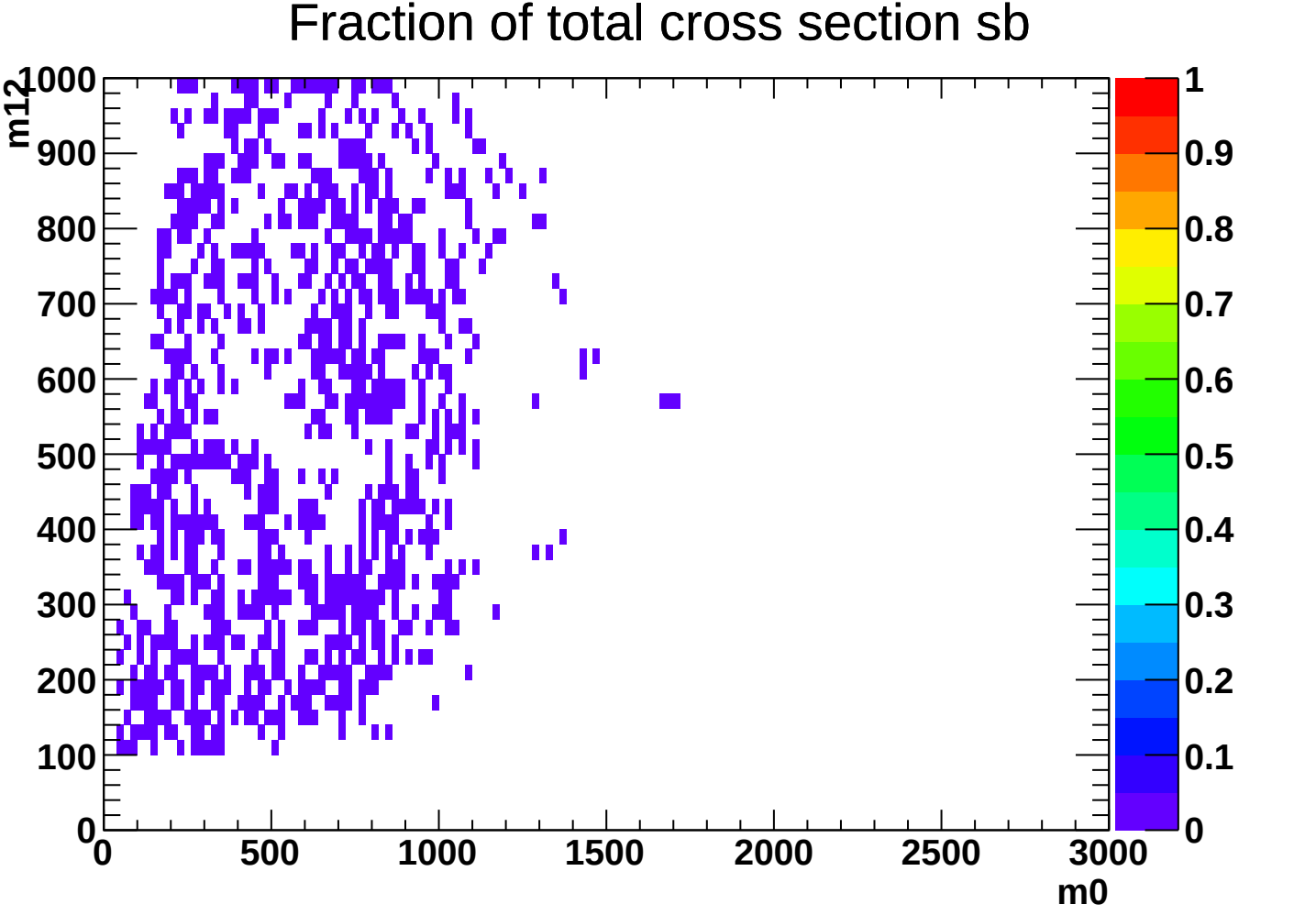
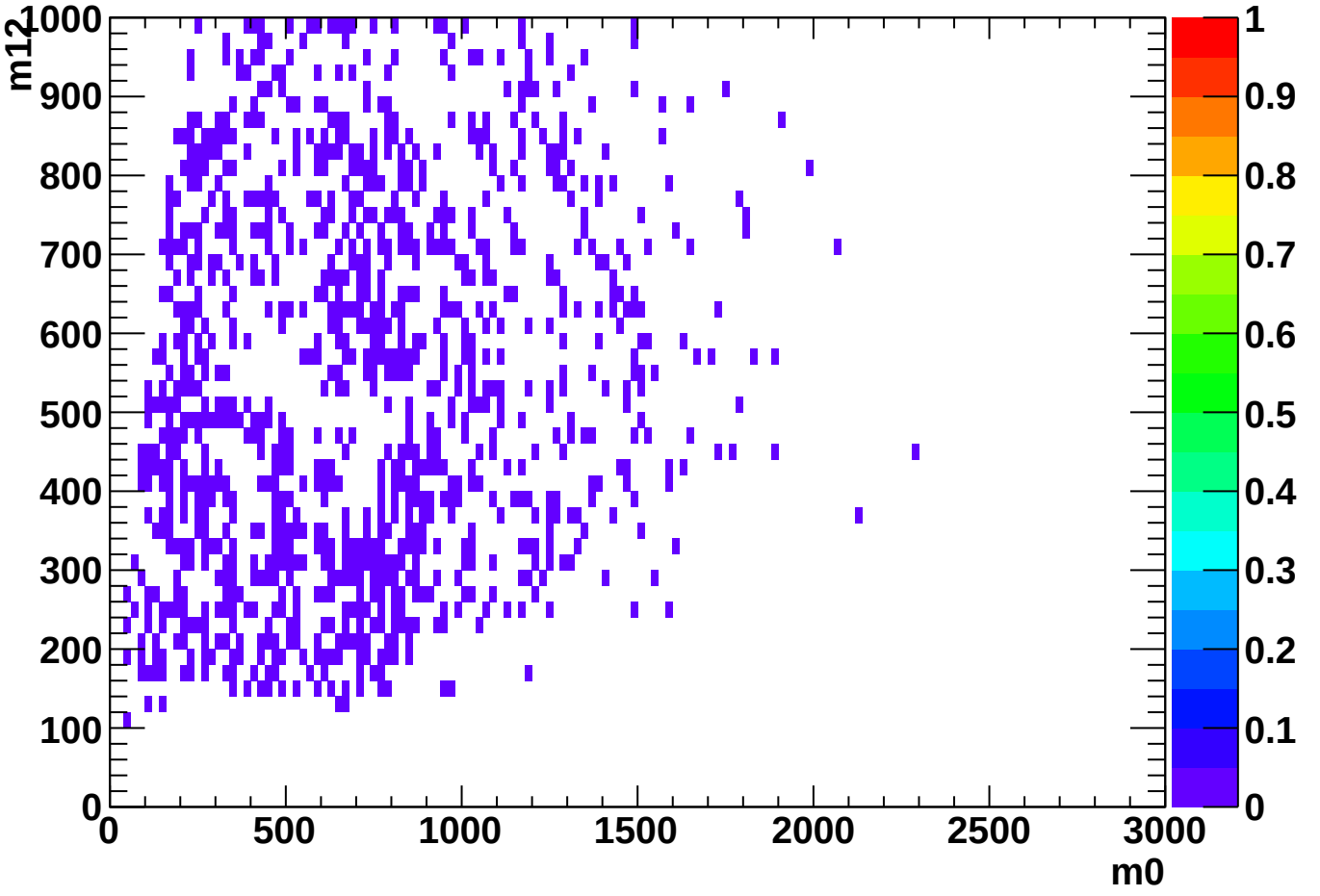
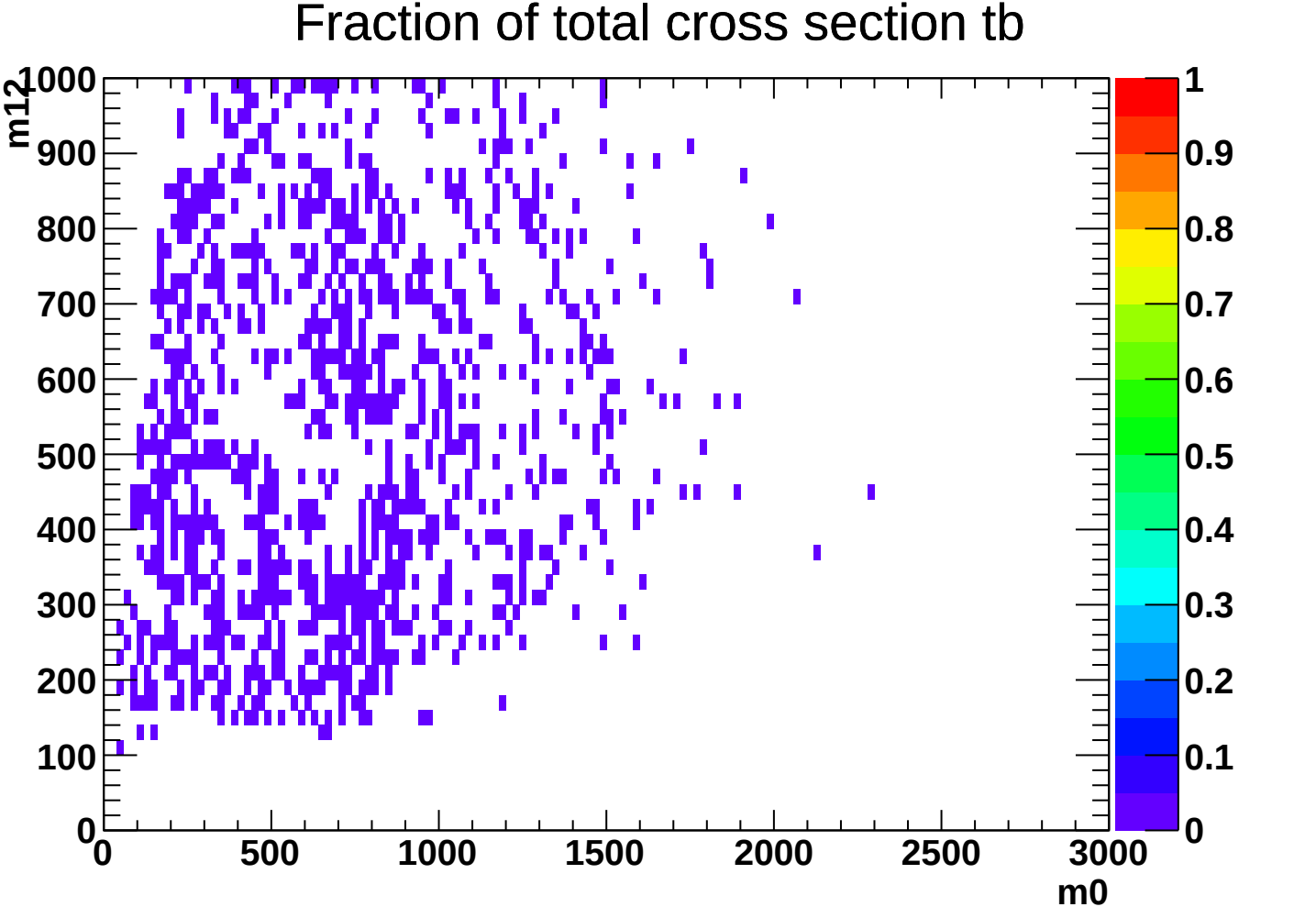
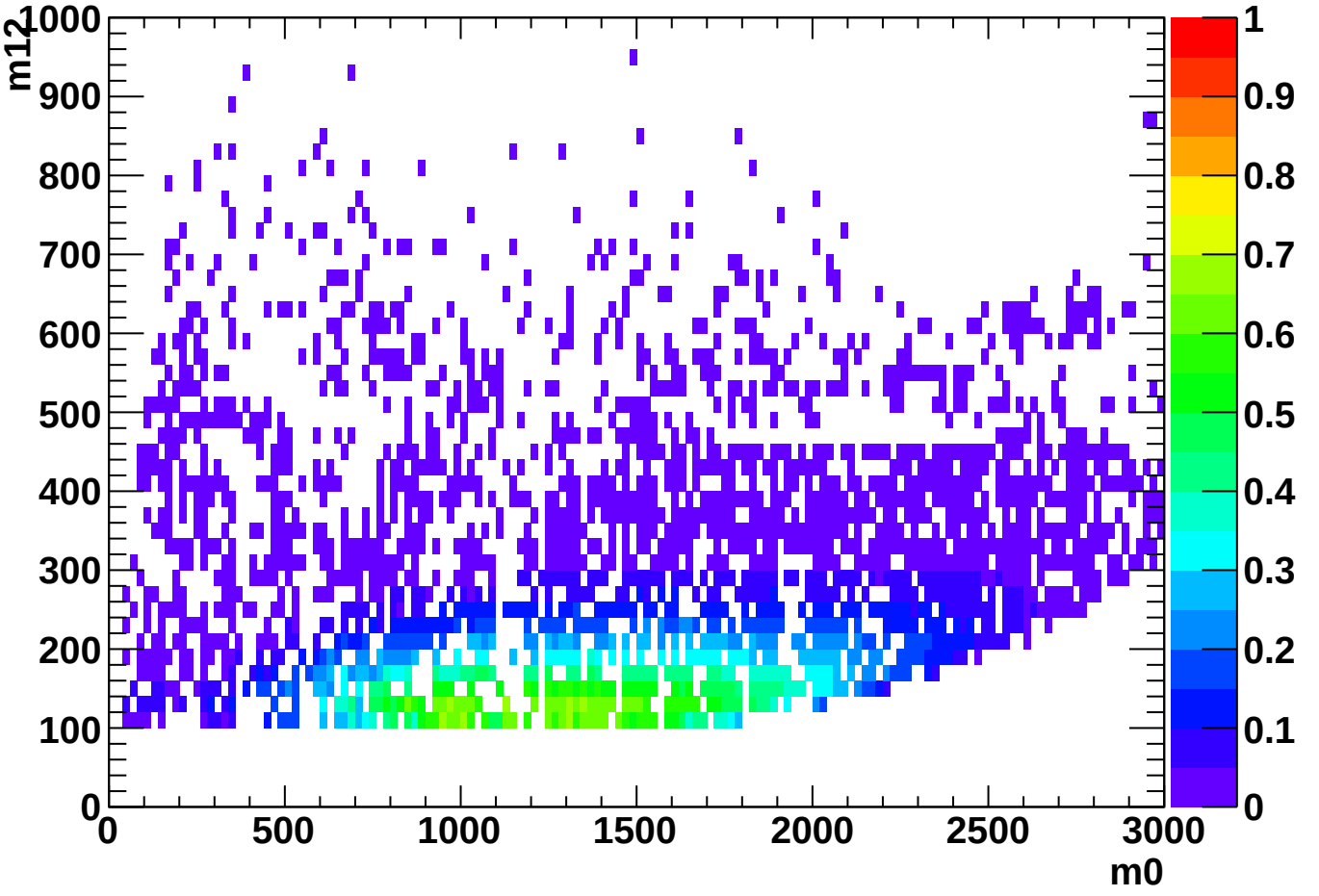
0.9
1

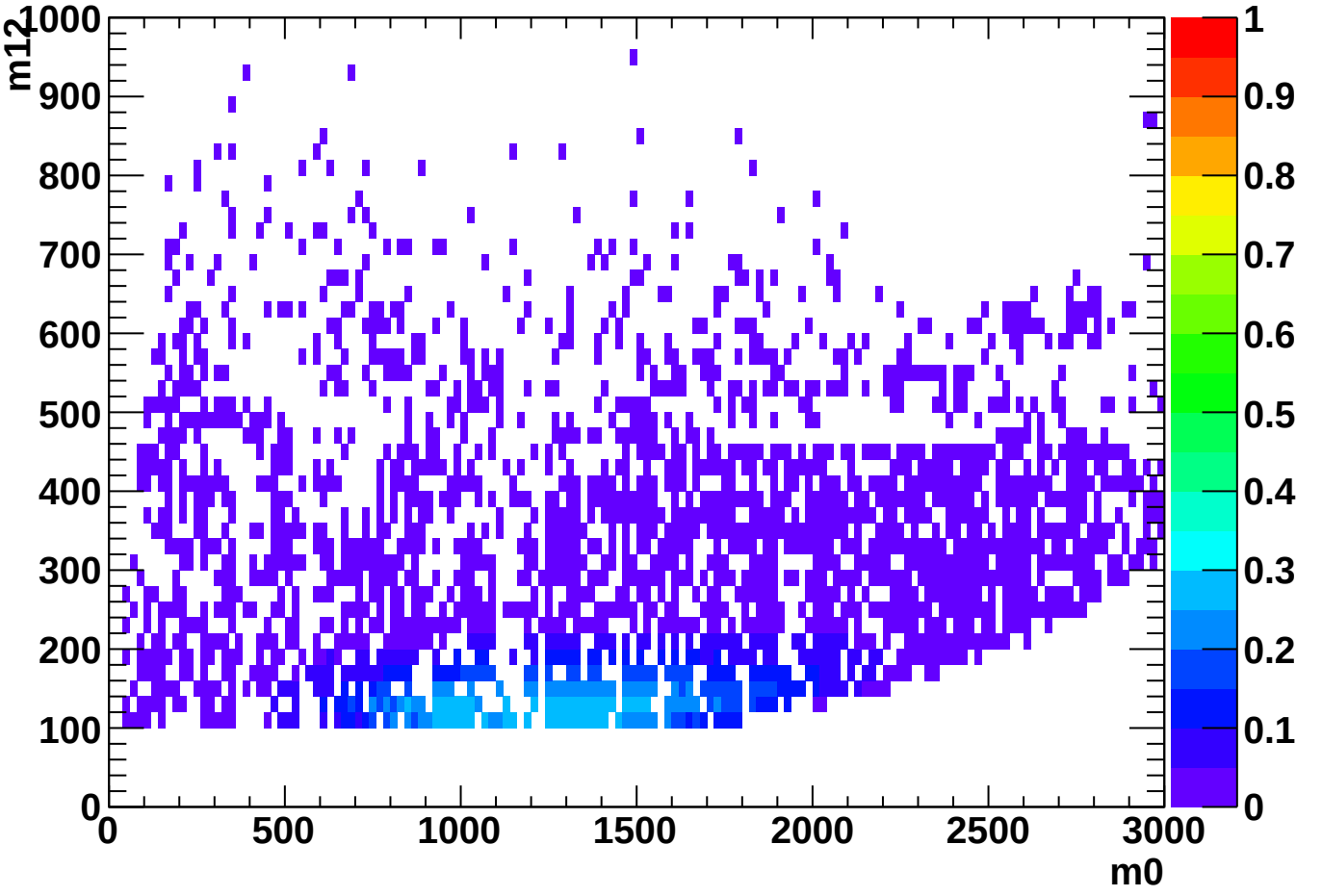

Fraction of total efficiency contributed by subprocess = sb
m12
m0
0
100
200
300
400
500
600
700
800
900
1000
0
500
1000
1500
2000
2500
3000
0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1

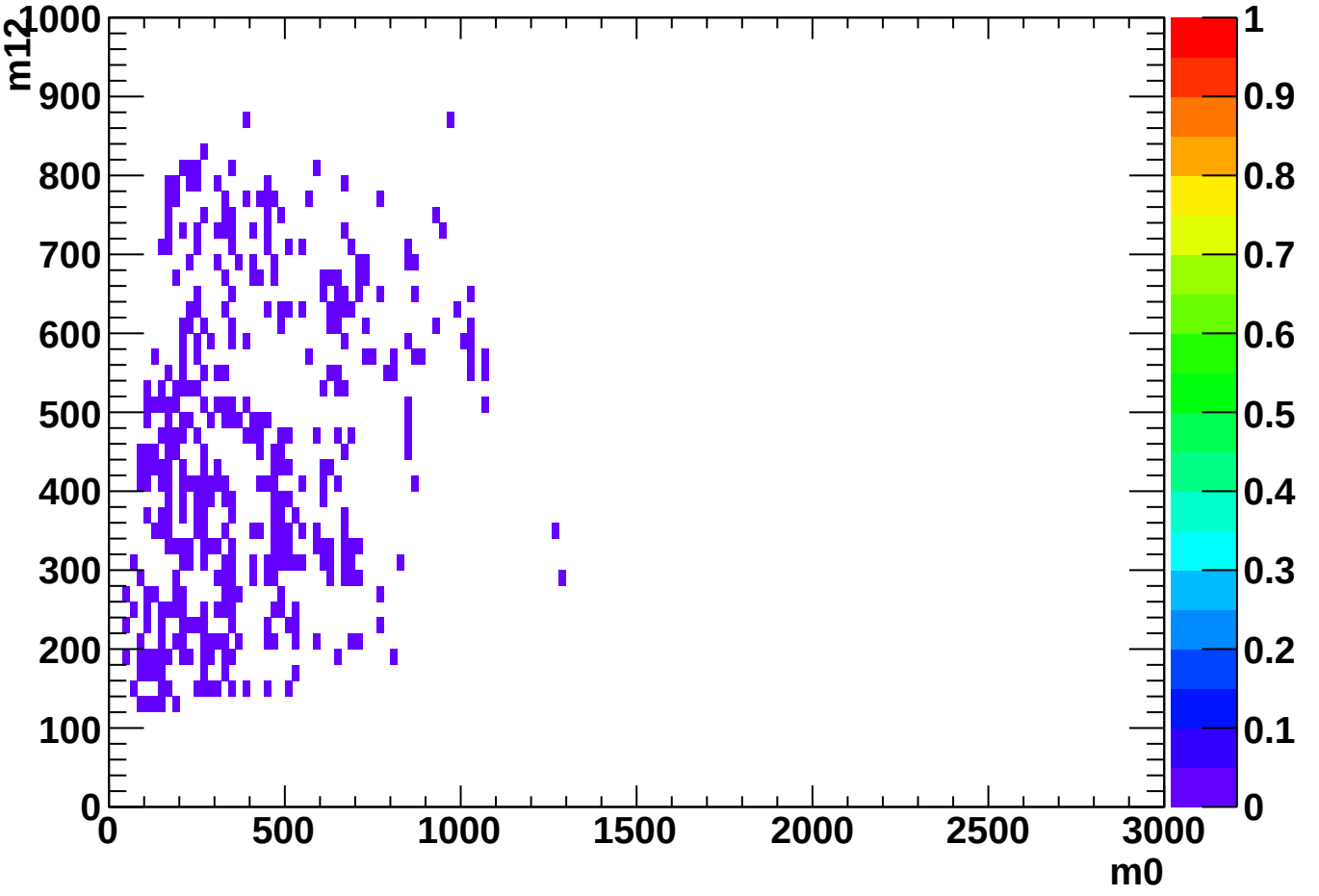

Fraction of total cross section sb
m12
m0
0
100
200
300
400
500
600
700
800
900
1000
0
500
1000
1500
2000
2500
3000
0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1

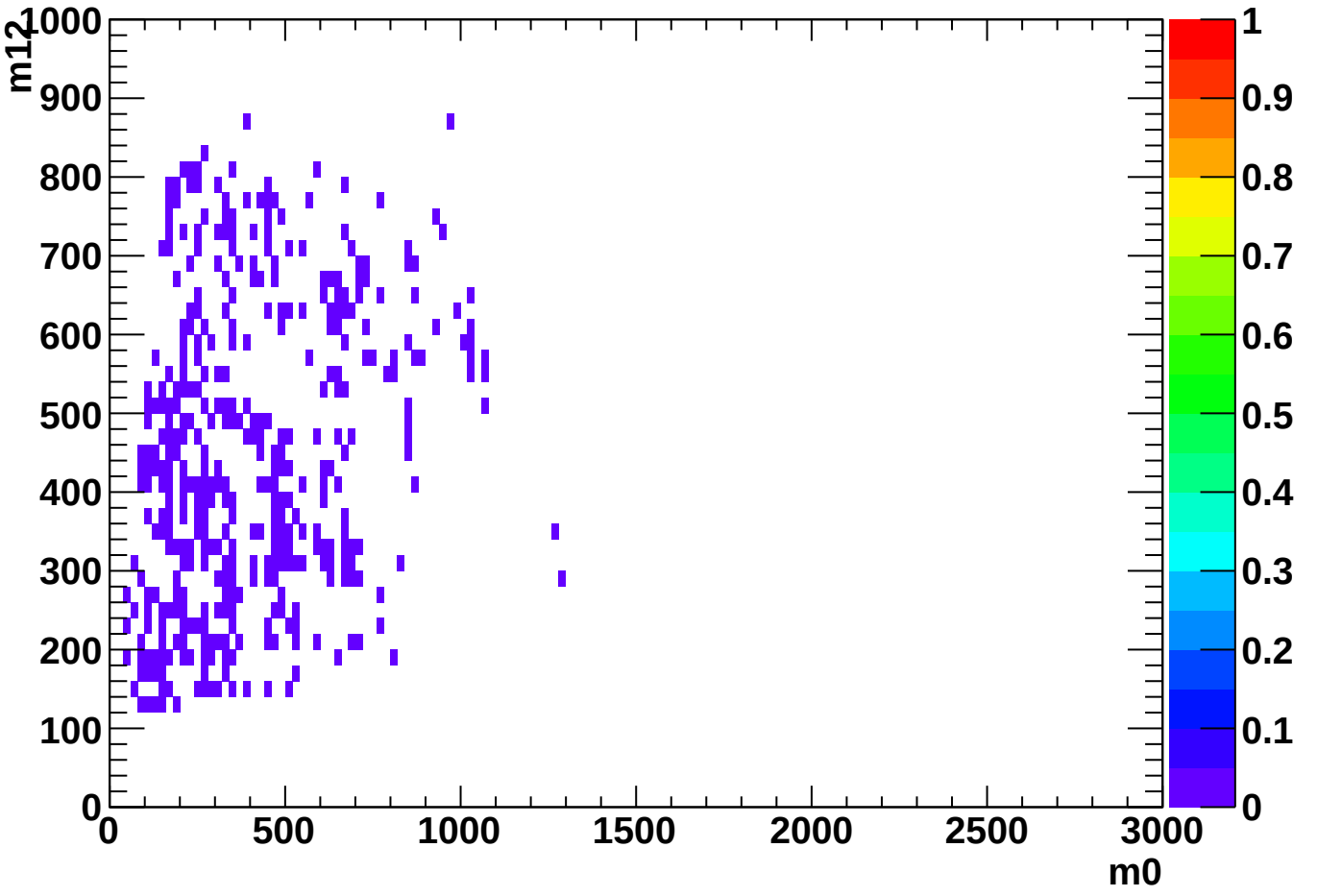

Fraction of total efficiency contributed by subprocess = tb
m12
m0
0
100
200
300
400
500
600
700
800
900
1000
0
500
1000
1500
2000
2500
3000
0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1

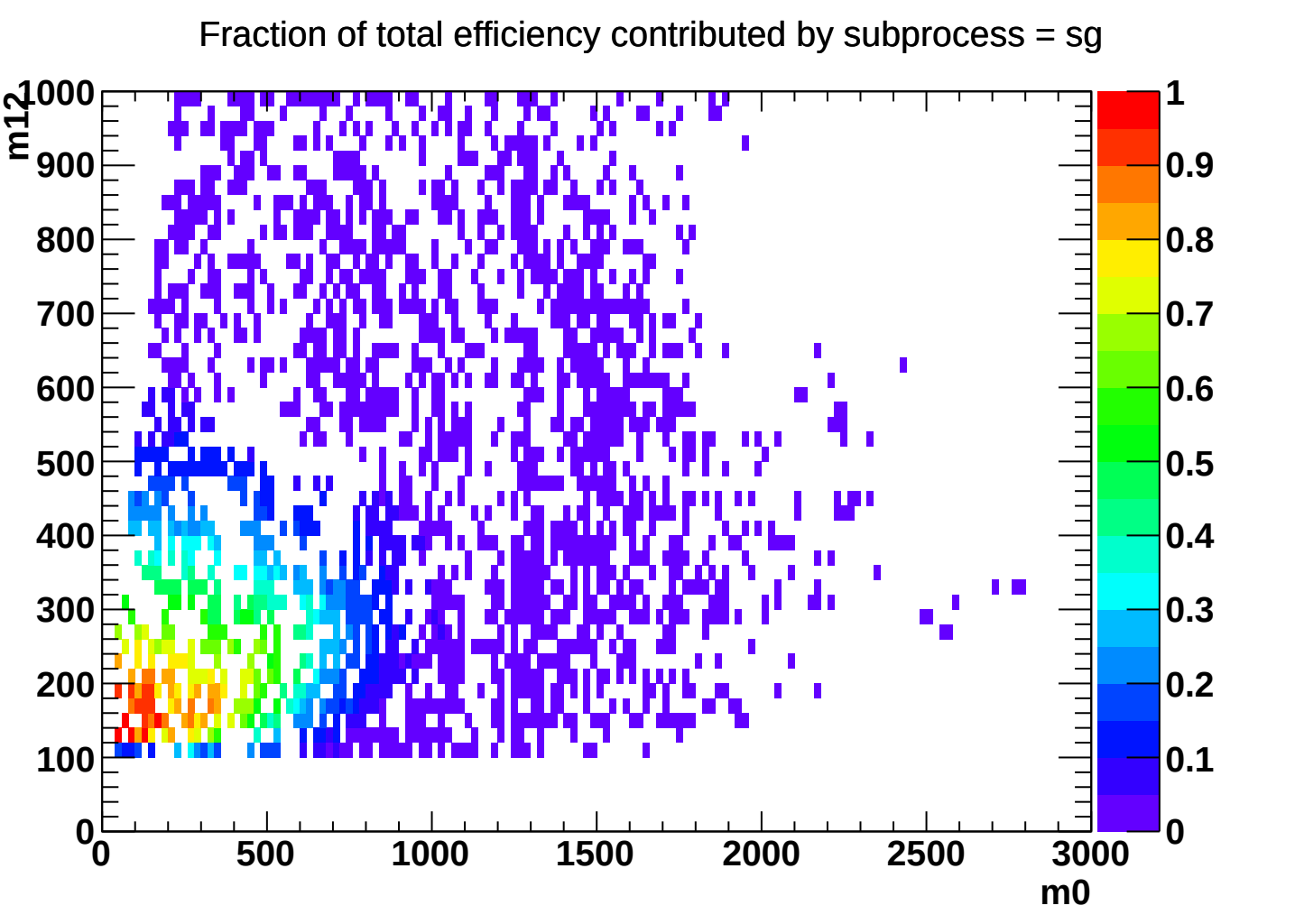

Fraction of total cross section tb
m12
m0
0
100
200
300
400
500
600
700
800
900
1000
0
500
1000
1500
2000
2500
3000
0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1

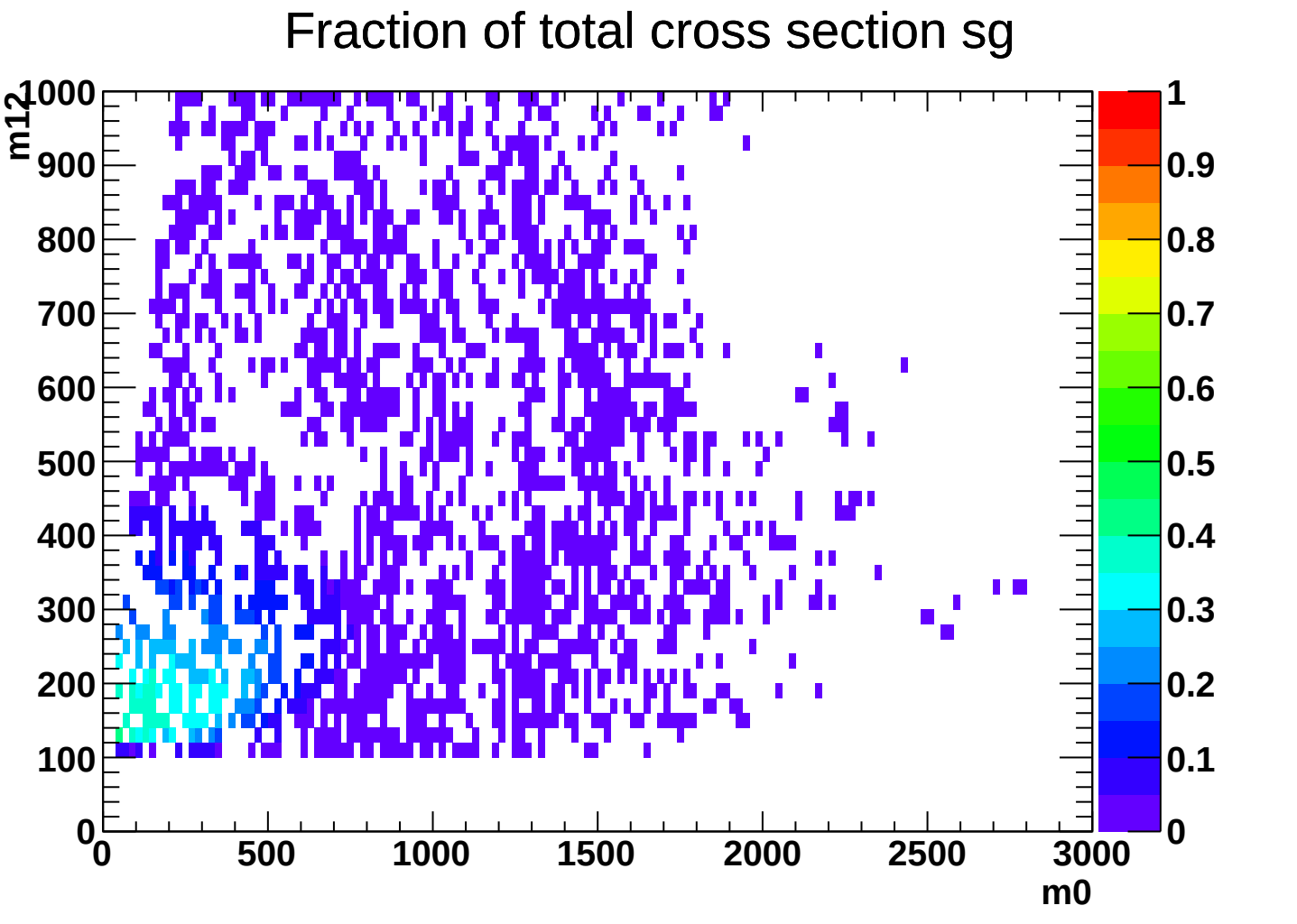

Fraction of total efficiency contributed by subprocess = gg
m12
m0
0
100
200
300
400
500
600
700
800
900
1000
0
500
1000
1500
2000
2500
3000
0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1

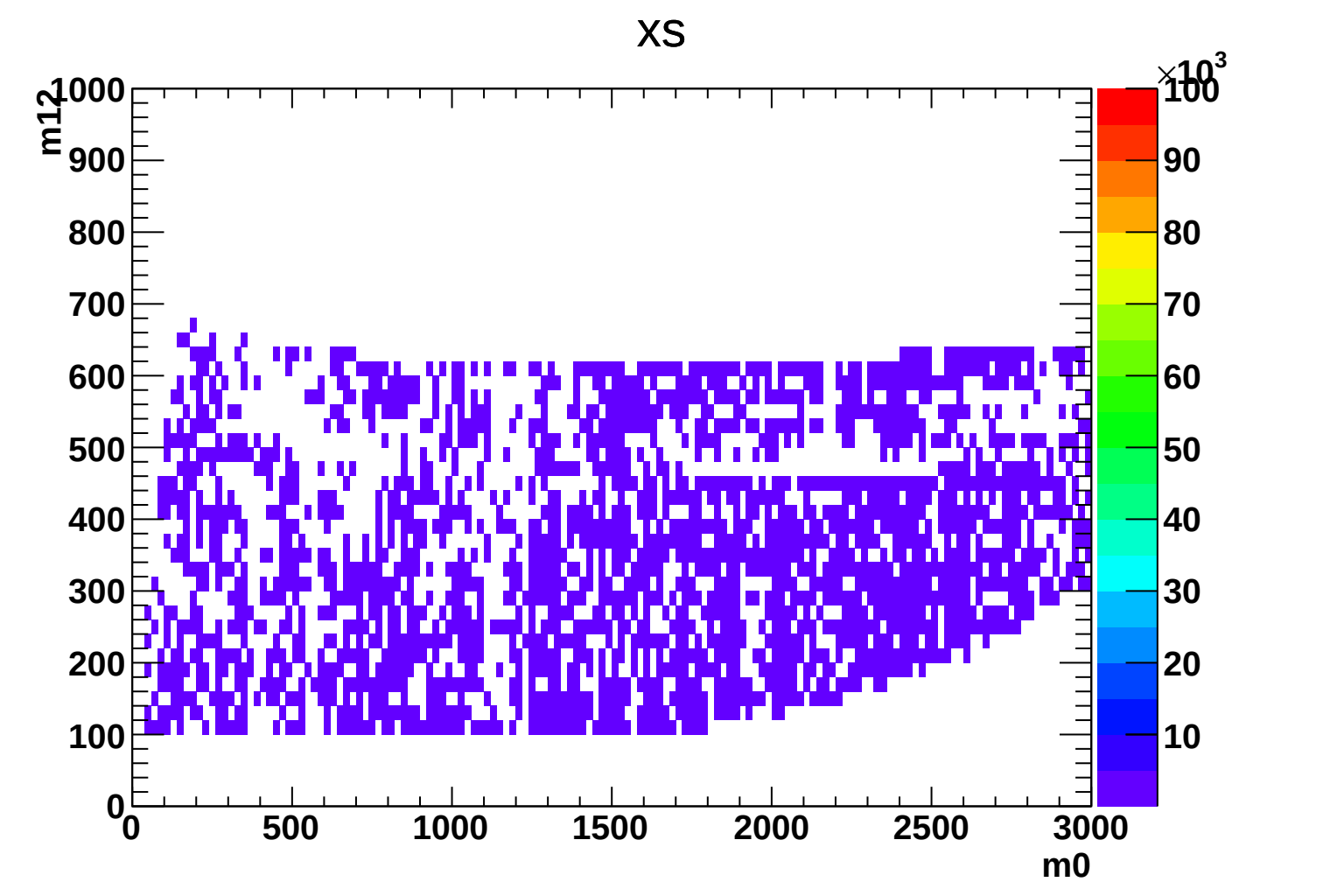

Fraction of total cross section gg
m12
m0
0
100
200
300
400
500
600
700
800
900
1000
0
500
1000
1500
2000
2500
3000
1
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0

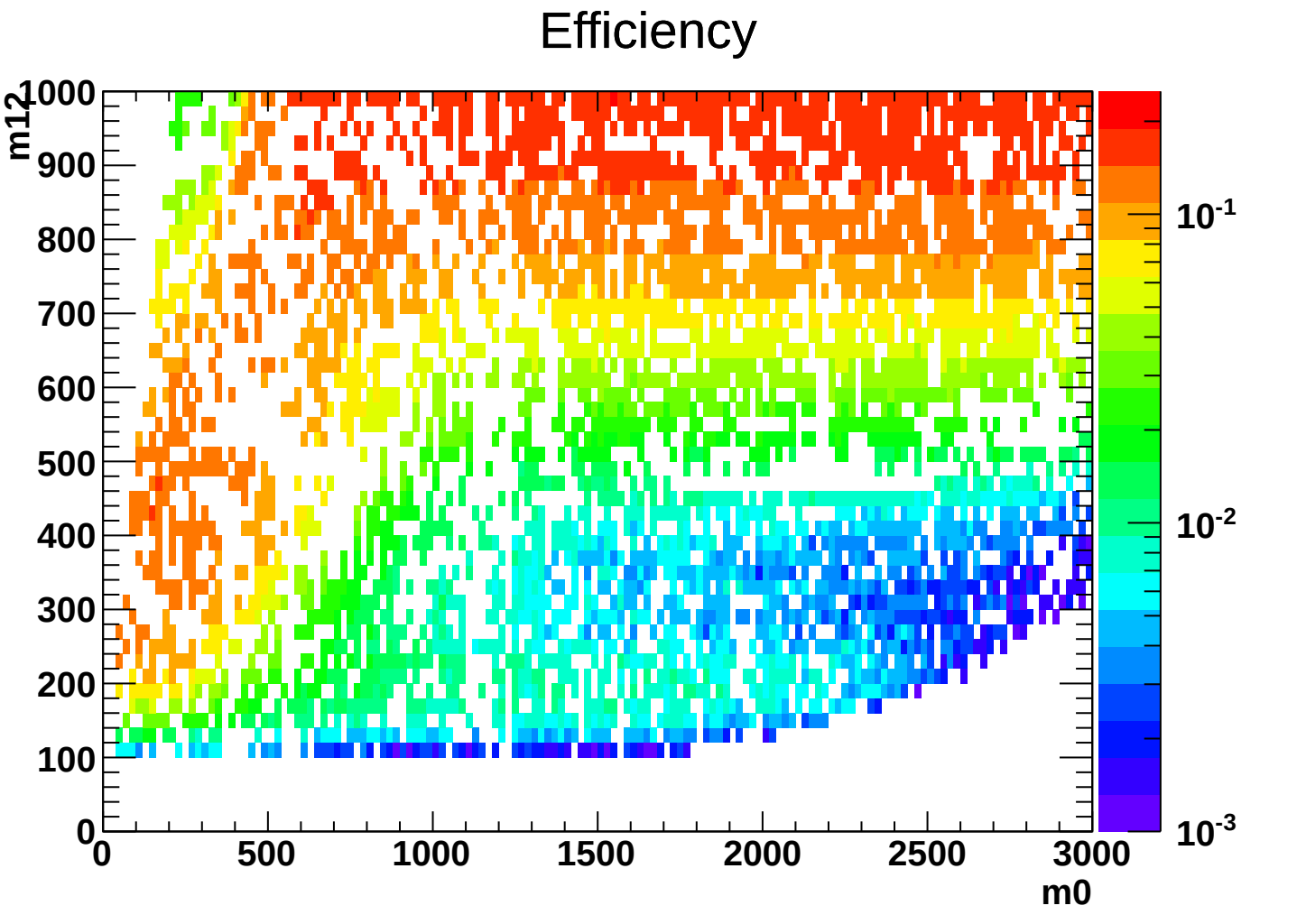

Fraction of total efficiency contributed by subprocess = bb
m12
m0
0
100
200
300
400
500
600
700
800
900
1000
0
500
1000
1500
2000
2500
3000
0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1

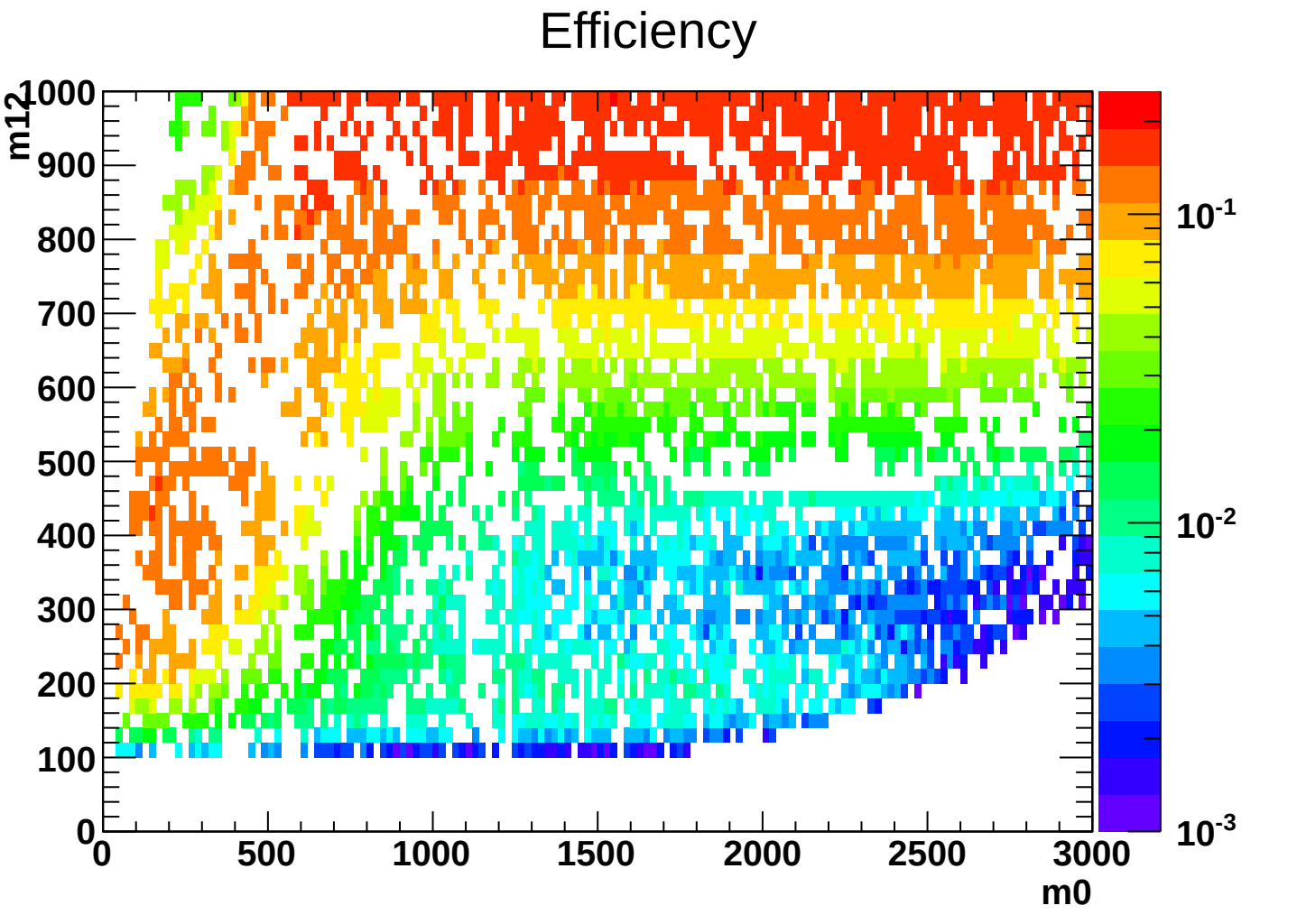

Fraction of total cross section bb
m12
m0
0
100
200
300
400
500
600
700
800
900
1000
0
500
1000
1500
2000
2500
3000
1
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0

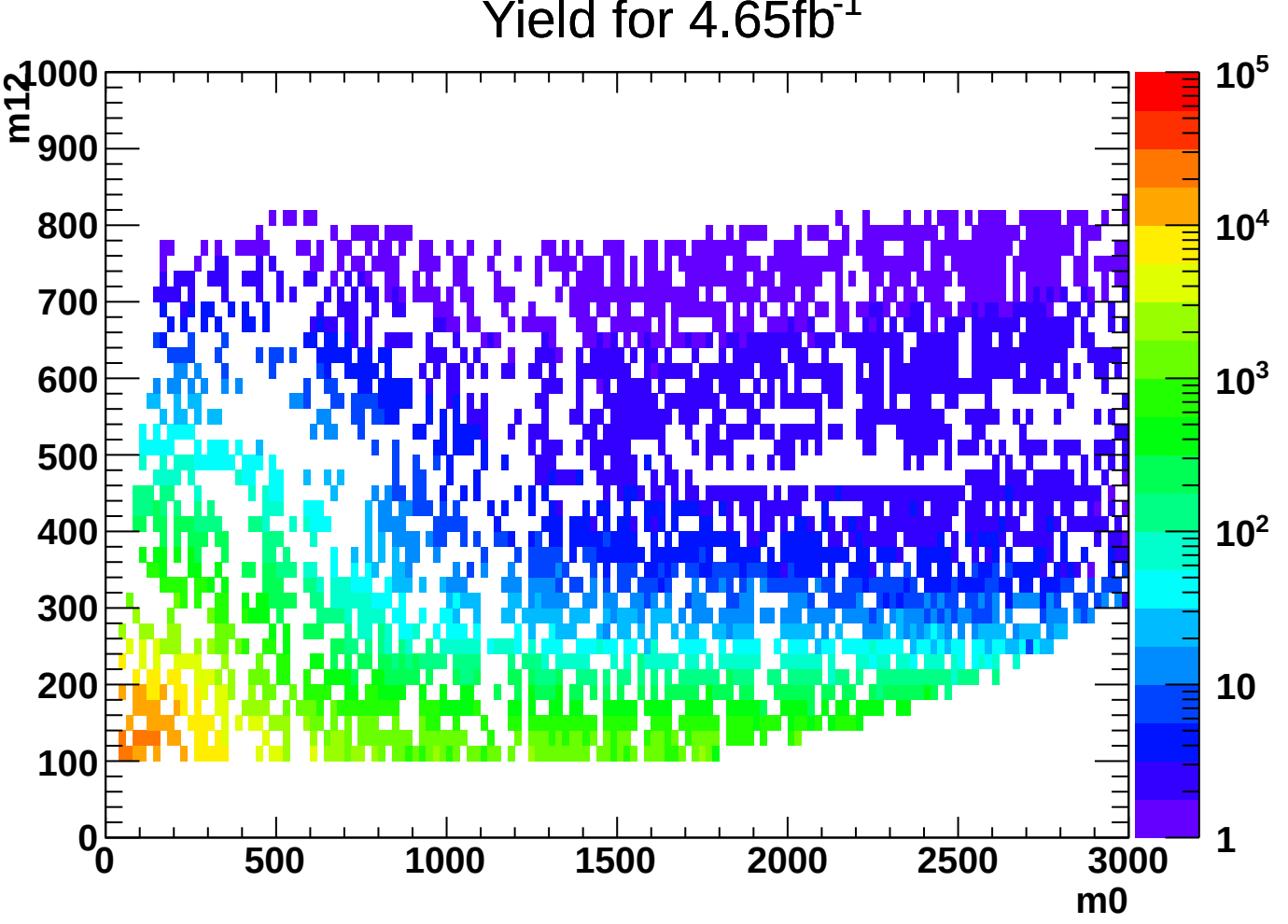

Fraction of total efficiency contributed by subprocess = sg
m12
m0
0
100
200
300
400
500
600
700
800
900
1000
0
500
1000
1500
2000
2500
3000
0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1

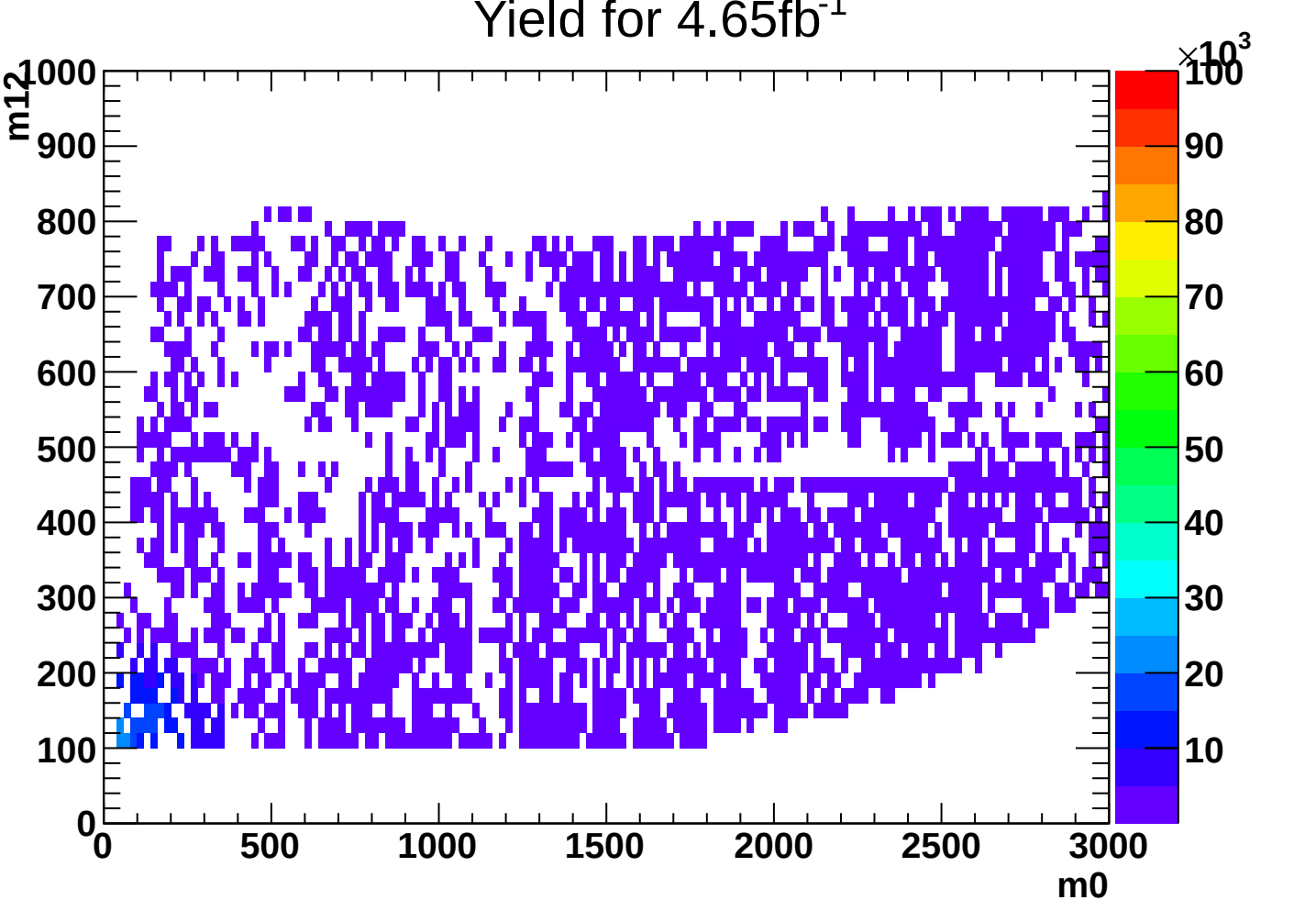

Fraction of total cross section sg
m12
m0
0
100
200
300
400
500
600
700
800
900
1000
0
500
1000
1500
2000
2500
3000
0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1

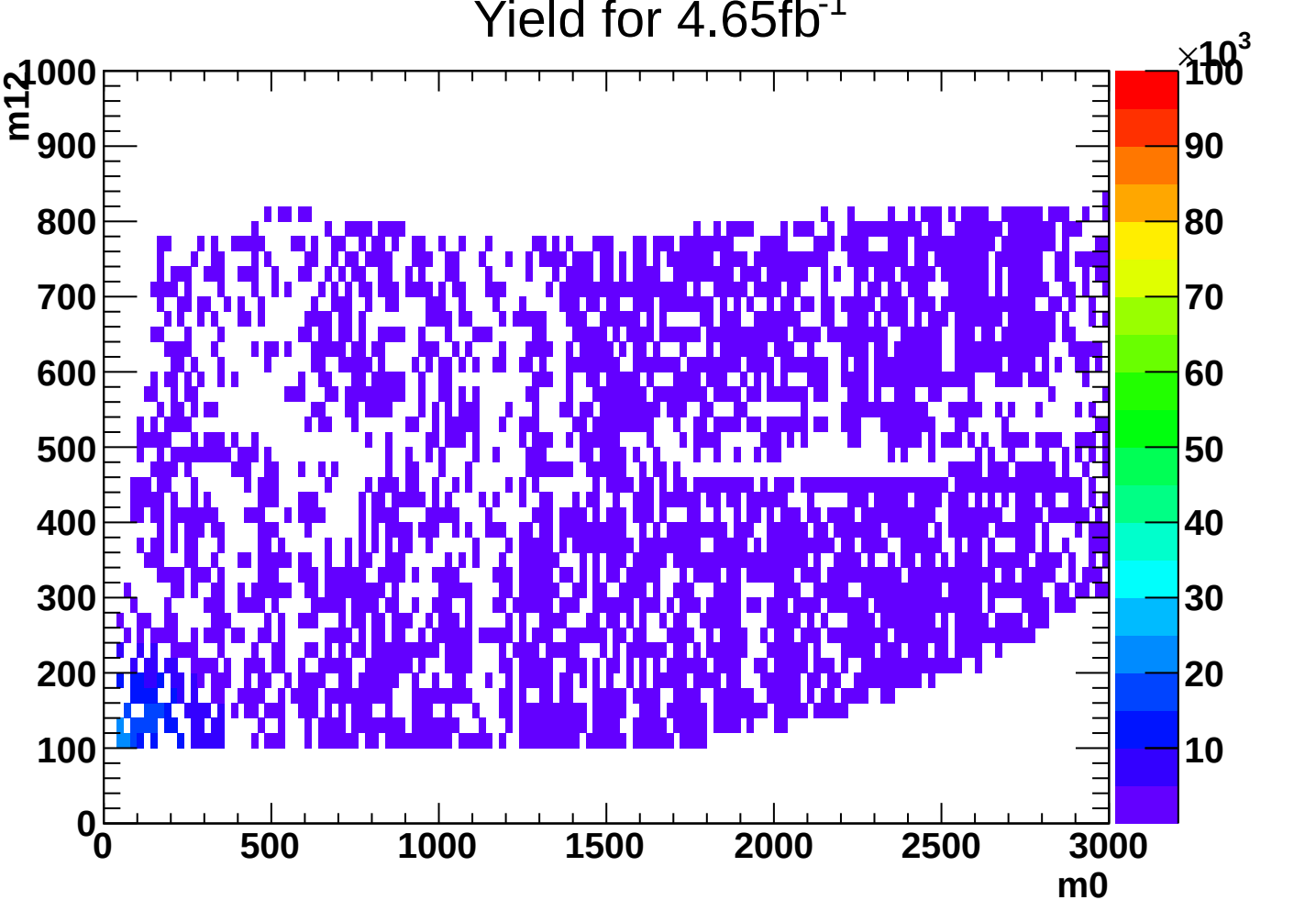

XS
m12
m0
×10^3
0
100
200
300
400
500
600
700
800
900
1000
0
500
1000
1500
2000
2500
3000
10
20
30
40
50
60
70
80
90
100

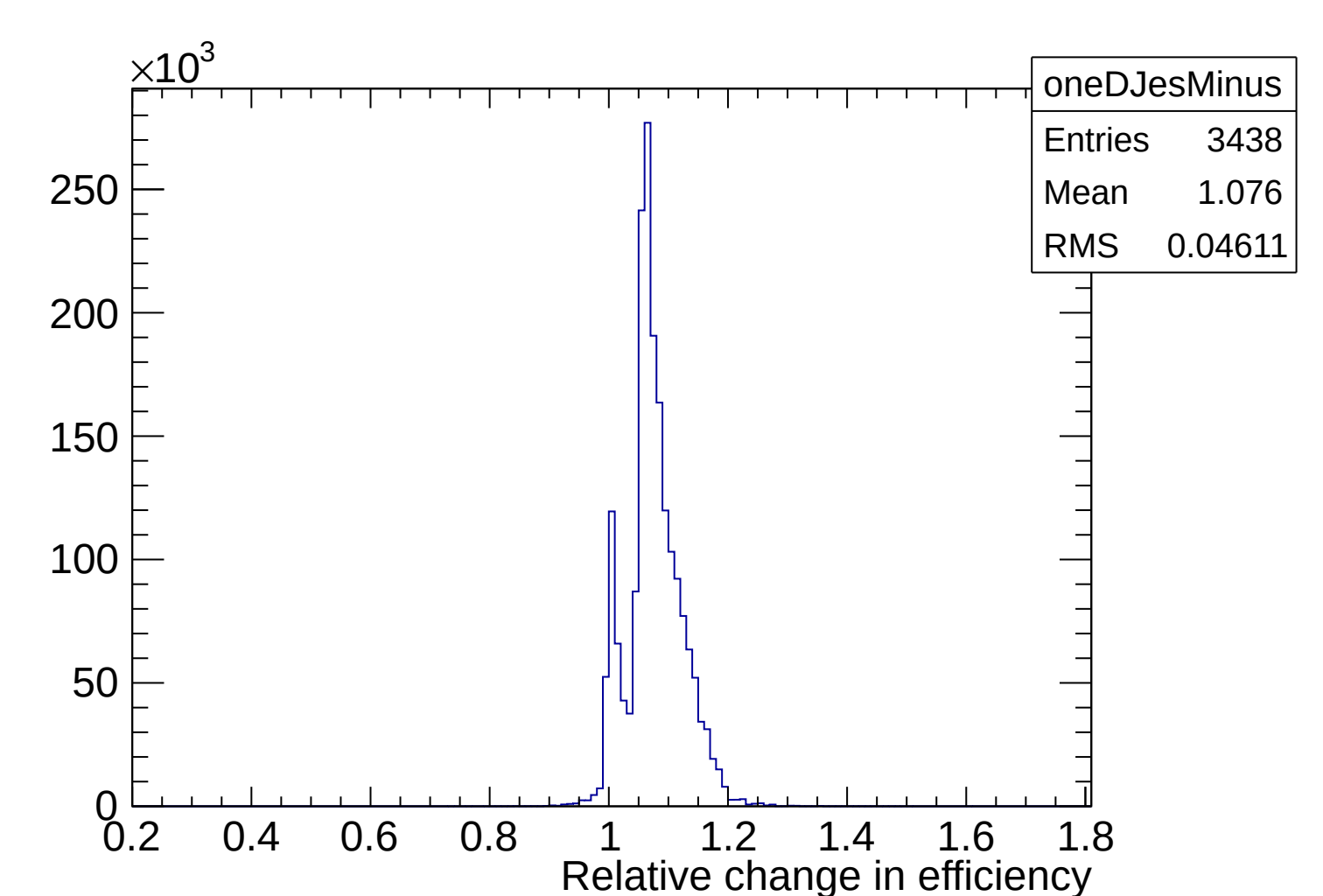

Efficiency
m12
m0
0
100
200
300
400
500
600
700
800
900
1000
0
500
1000
1500
2000
2500
3000
10^{-1}
10^{-2}
10^{-3}

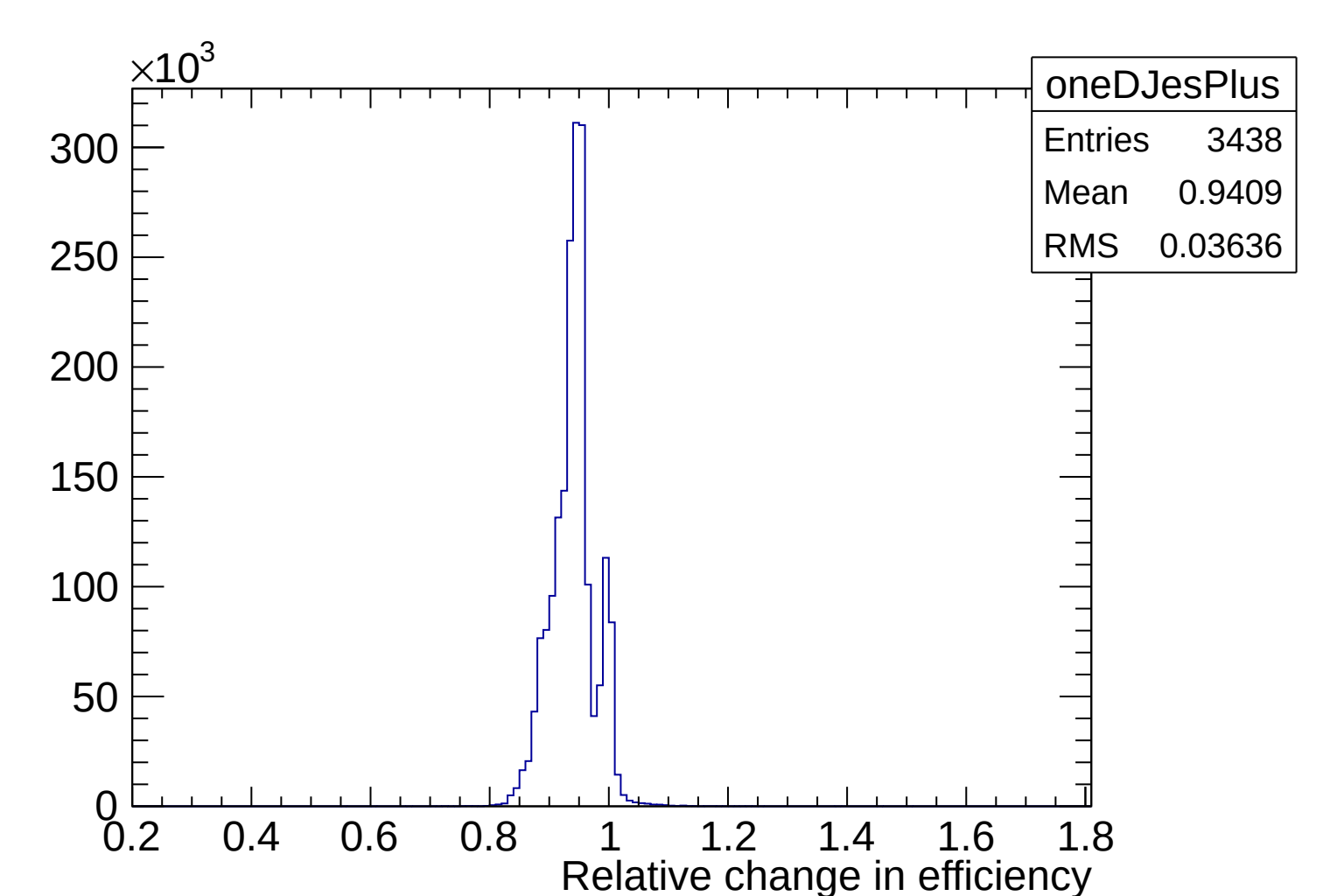

Efficiency
m12
m0
0
100
200
300
400
500
600
700
800
900
1000
0
500
1000
1500
2000
2500
3000
10^{-1}
10^{-2}
10^{-3}

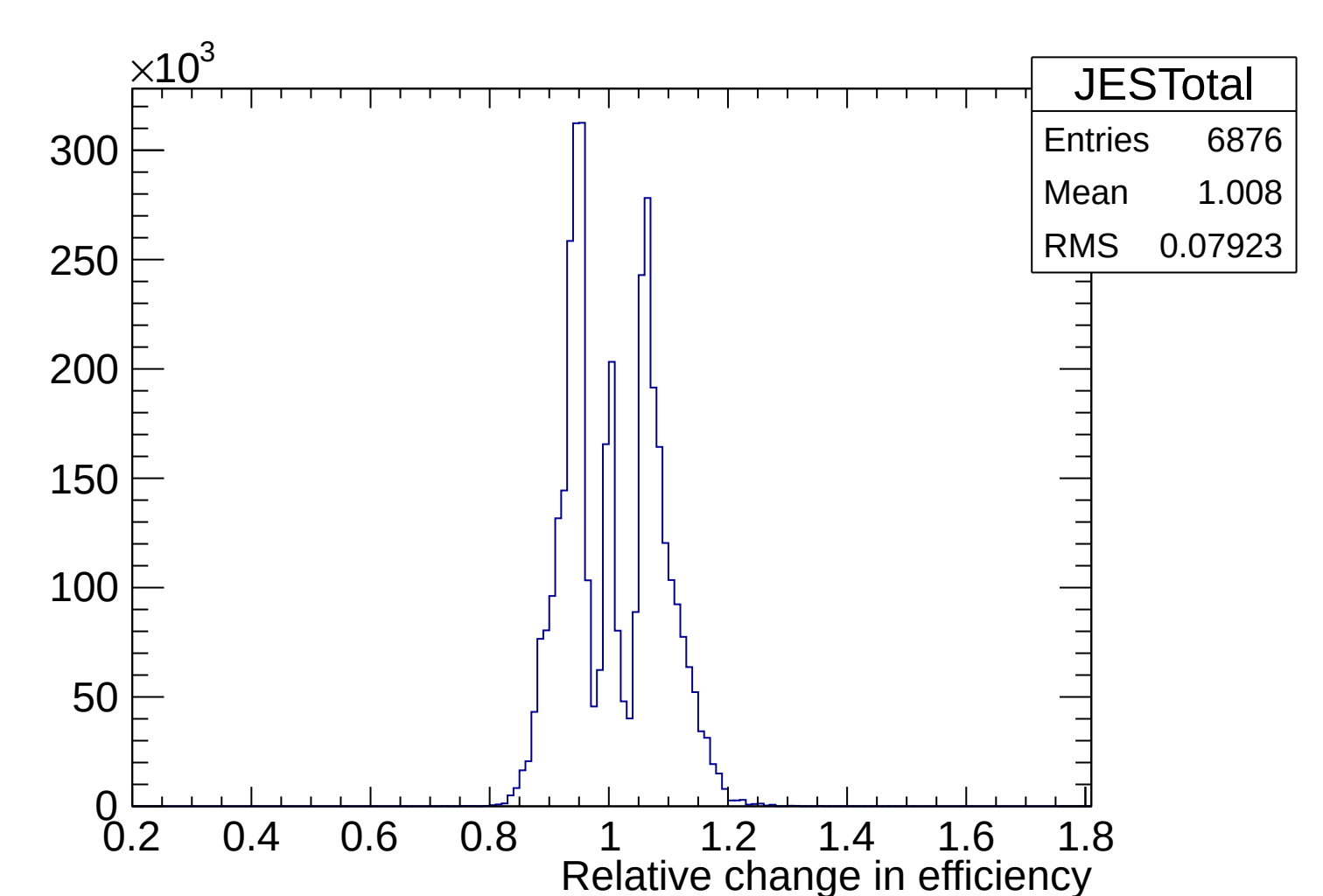

Yield for 4.65fb-1
m12
m0
0
100
200
300
400
500
600
700
800
900
1000
0
500
1000
1500
2000
2500
3000
10^5
10^4
10^3
10^2
10
1

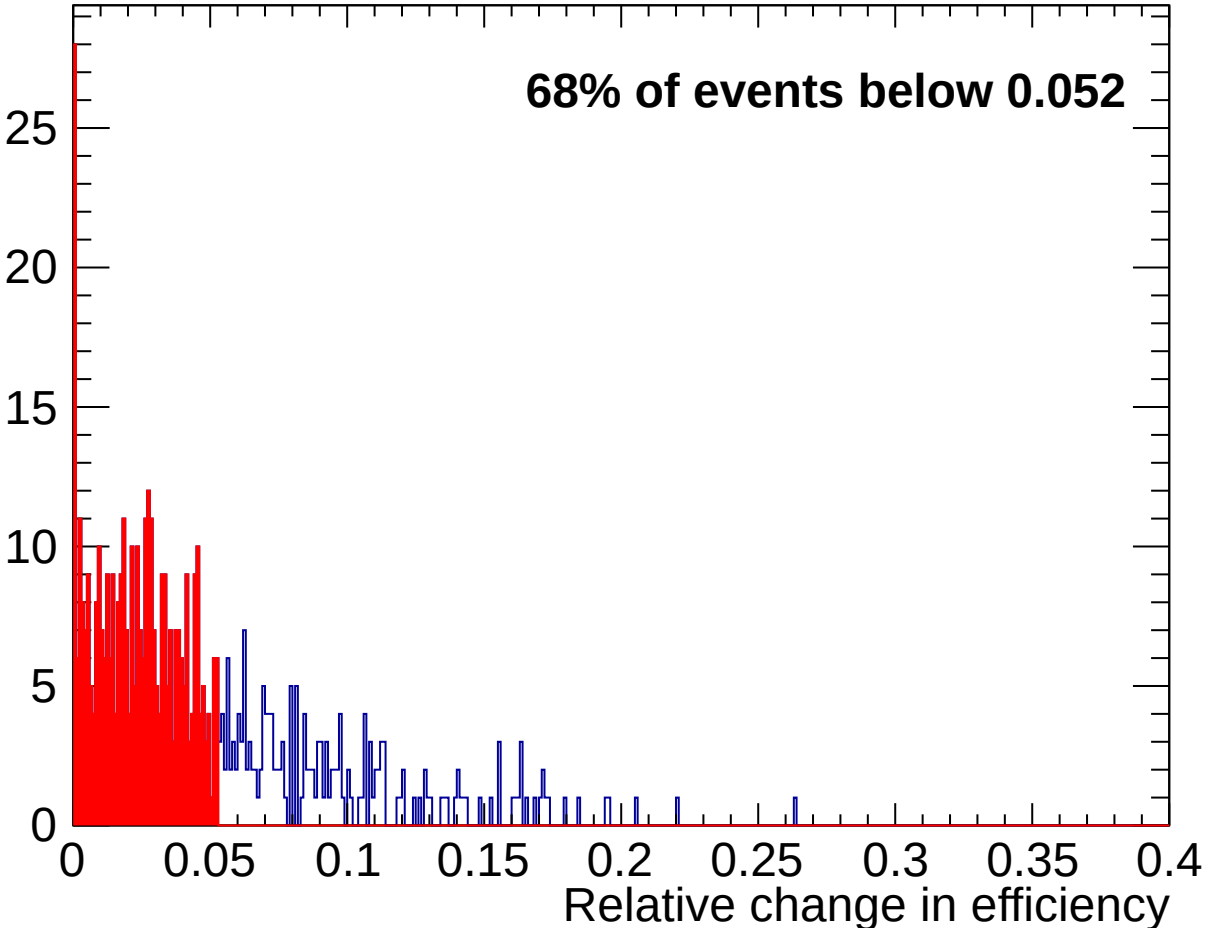

Yield for 4.65fb-1
m12
m0
×10³
0
500
1000
1500
2000
2500
3000
100
200
300
400
500
600
700
800
900
1000
10
20
30
40
50
60
70
80
90
100

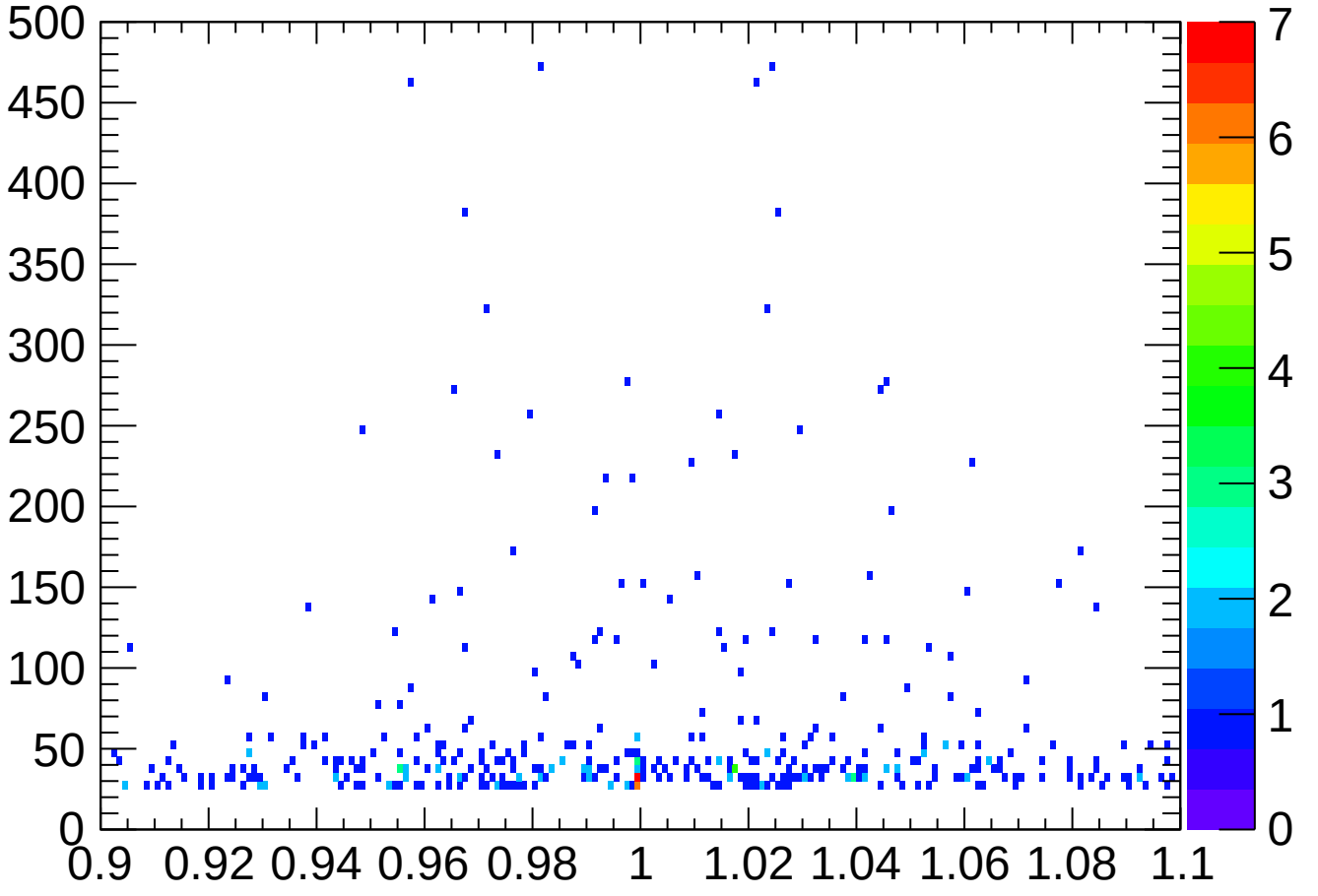

Yield for 4.65fb-1
m12
m0
×10³
0
500
1000
1500
2000
2500
3000
100
200
300
400
500
600
700
800
900
1000
10
20
30
40
50
60
70
80
90
100

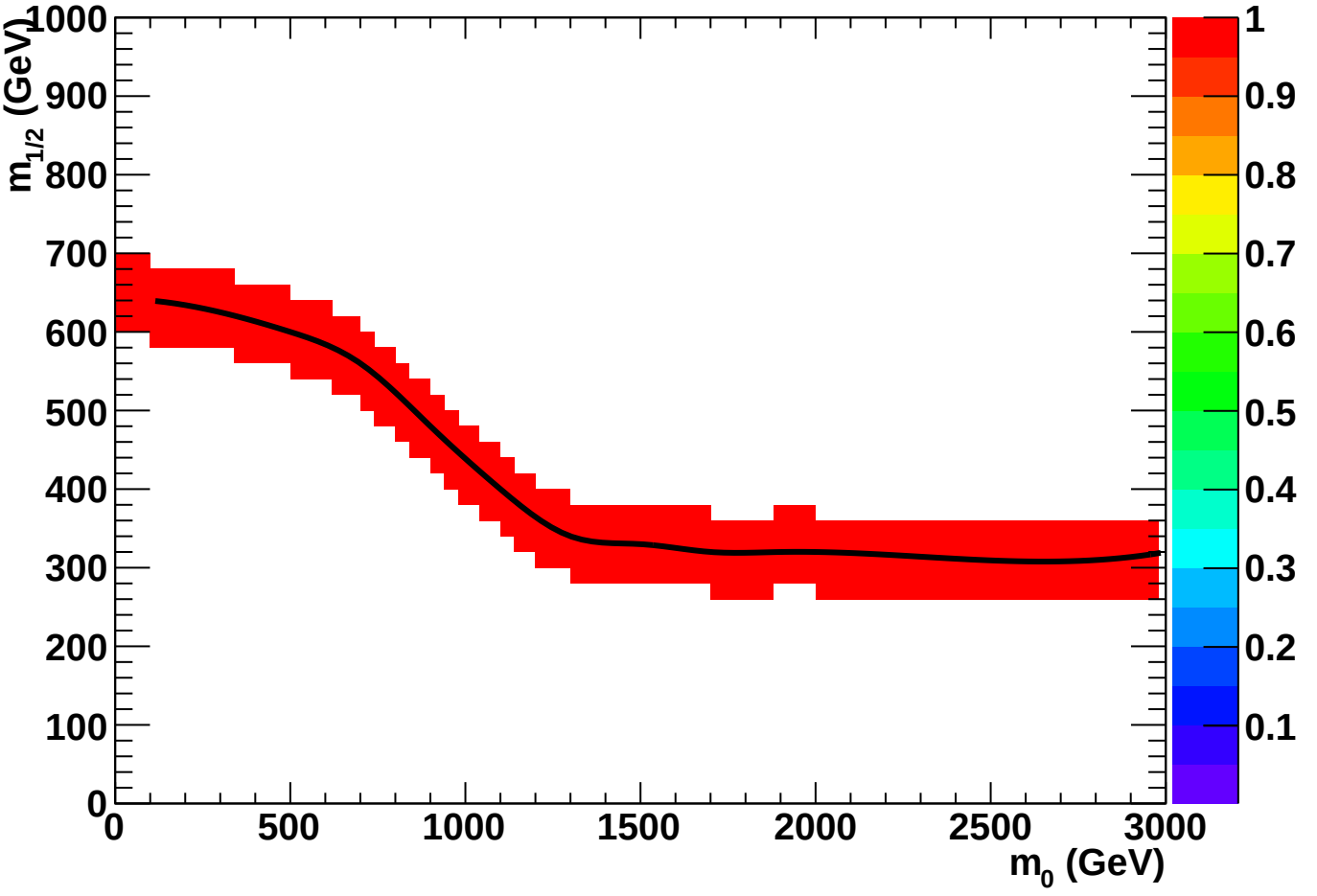

×10^3
250
200
150
100
50
0
0.2
0.4
0.6
0.8
1
1.2
1.4
1.6
1.8
Relative change in efficiency
oneDJesMinus
Entries 3438
Mean 1.076
RMS 0.04611

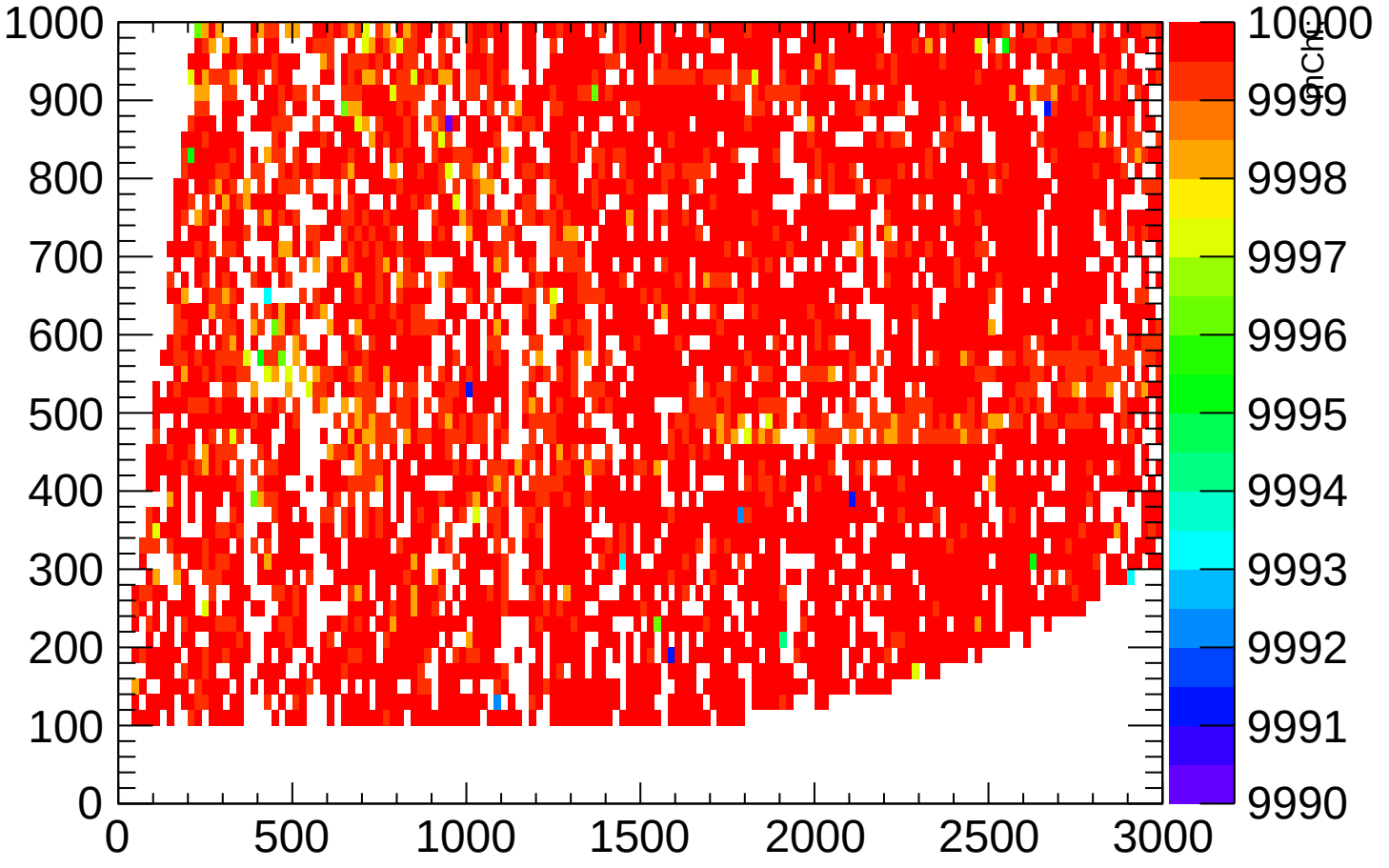

×10^3
300
250
200
150
100
50
0
0.2
0.4
0.6
0.8
1
1.2
1.4
1.6
1.8
Relative change in efficiency
oneDJesPlus
Entries 3438
Mean 0.9409
RMS 0.03636

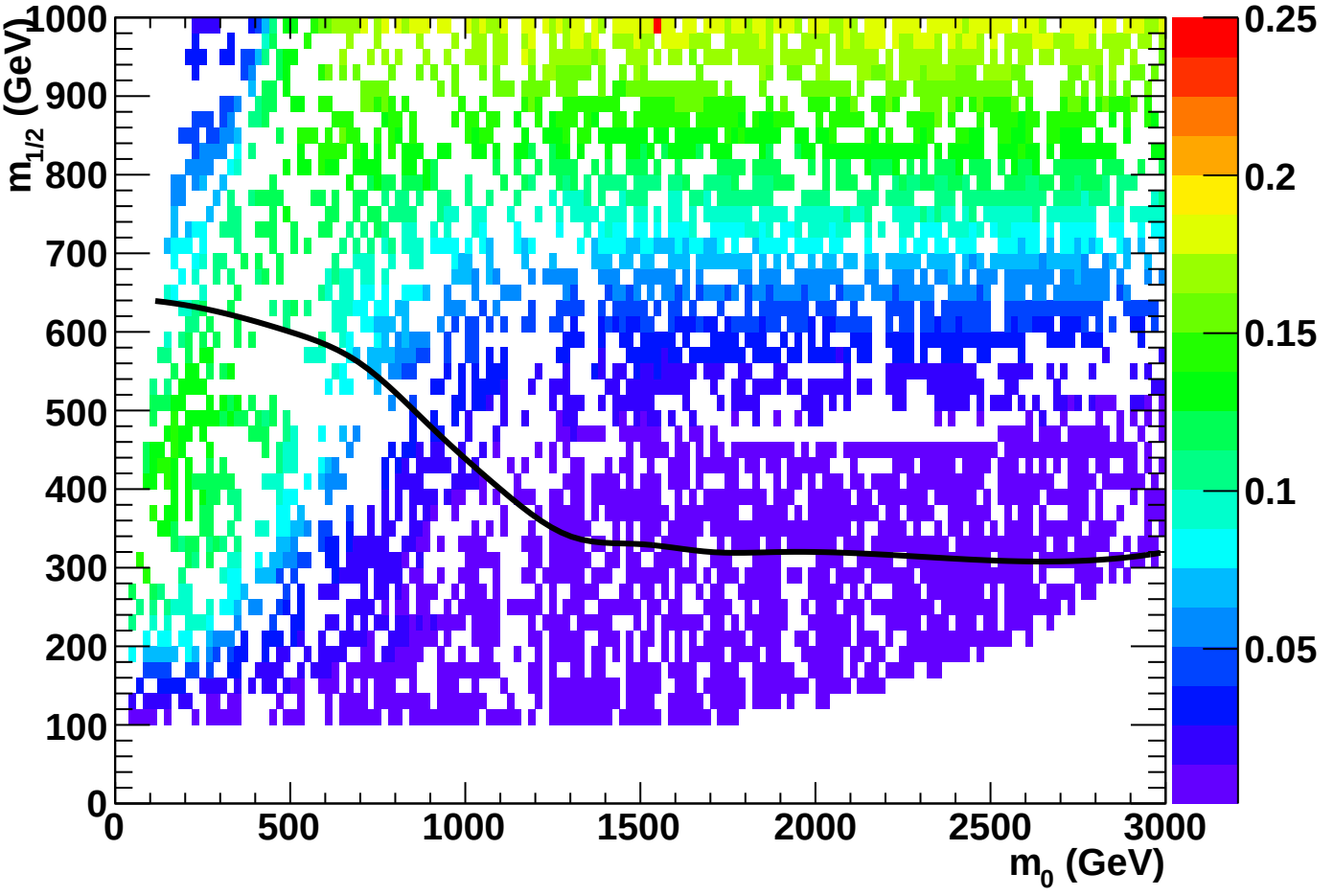

JESTotal
Entries 6876
Mean 1.008
RMS 0.07923
×10^3
300
250
200
150
100
50
0
0.2
0.4
0.6
0.8
1
1.2
1.4
1.6
1.8
Relative change in efficiency

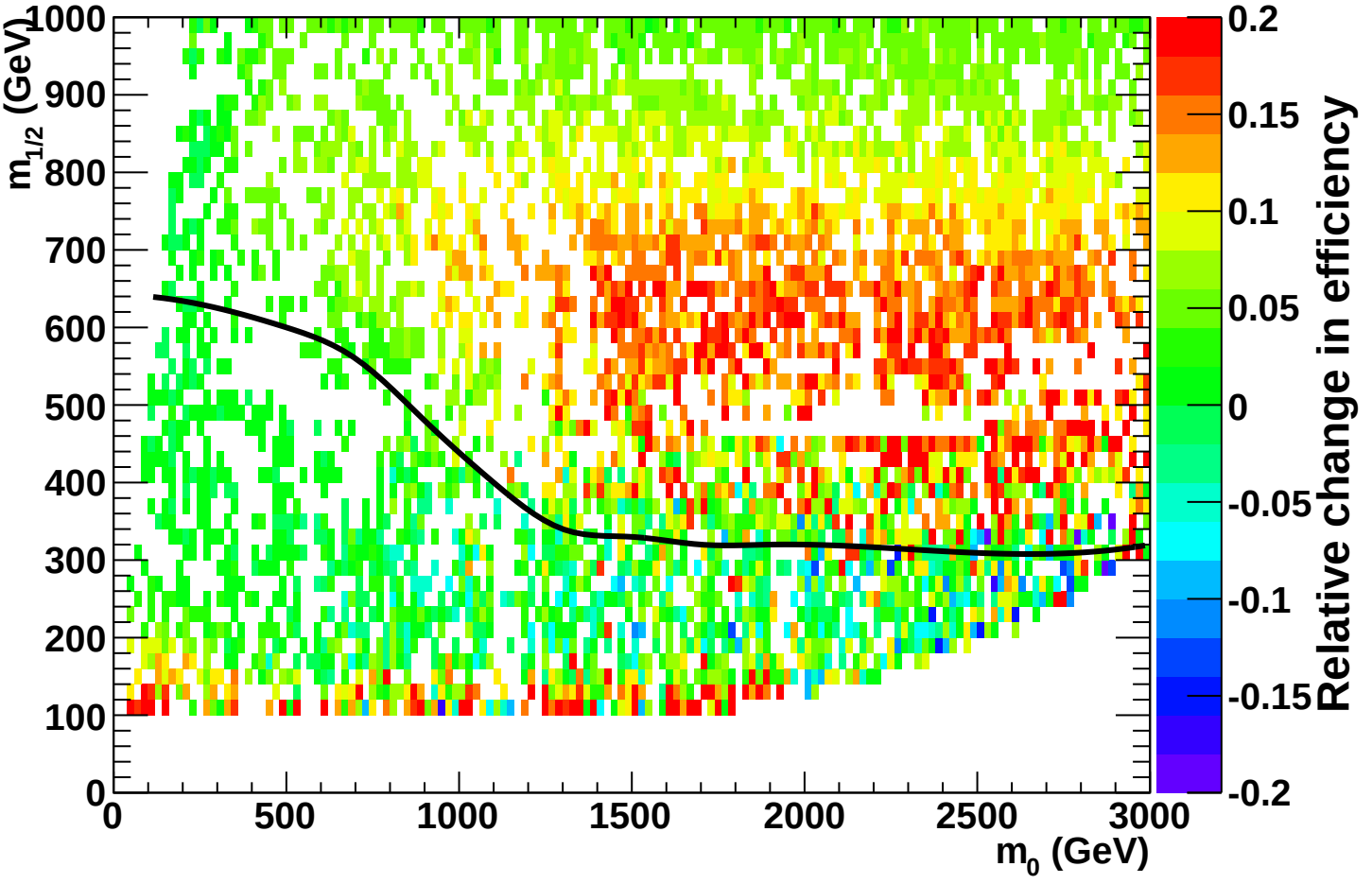

68% of events below 0.052
25
20
15
10
5
0
0
0.05
0.1
0.15
0.2
0.25
0.3
0.35
0.4
Relative change in efficiency

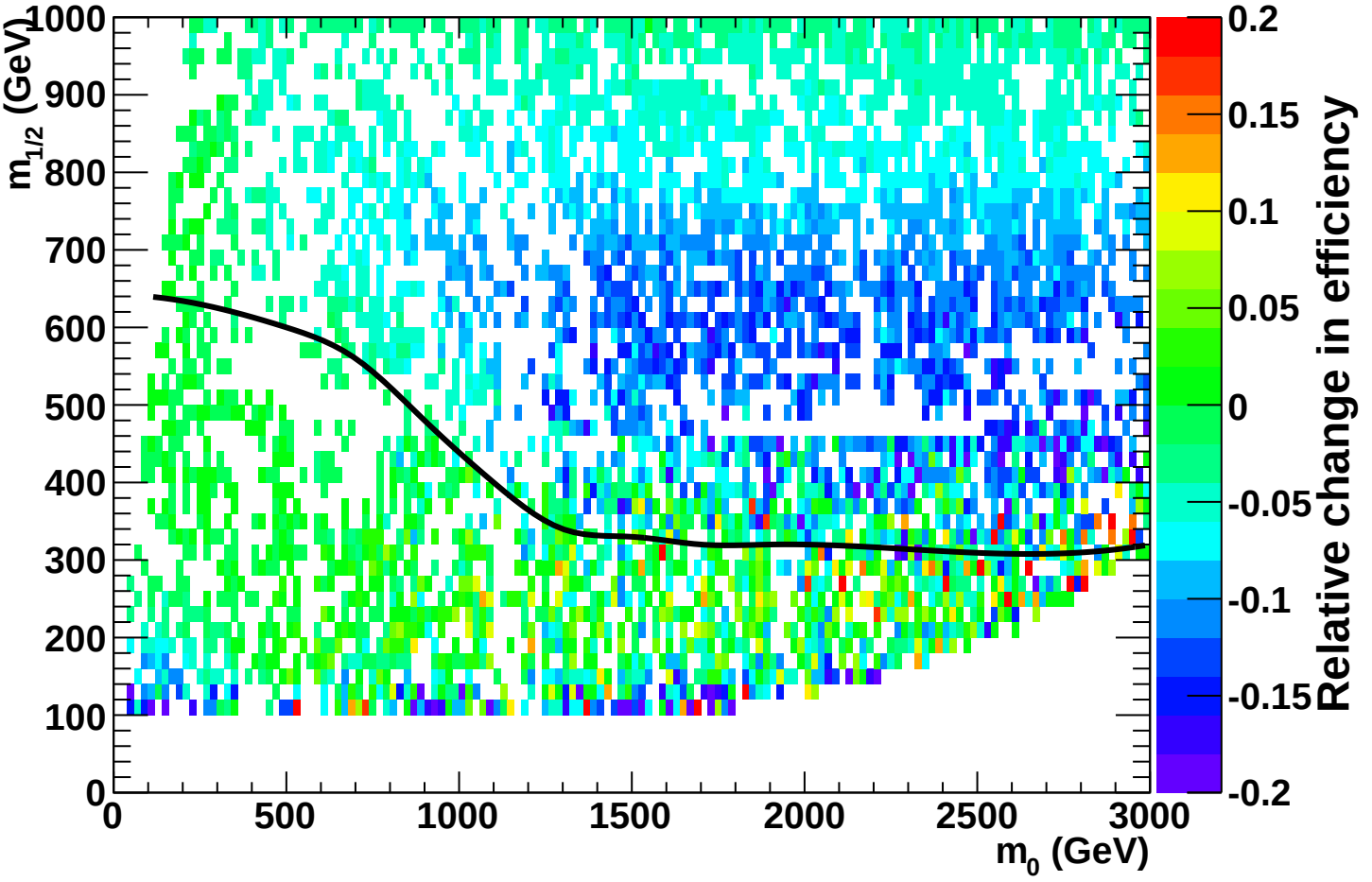

500
450
400
350
300
250
200
150
100
50
0
0.9
0.92
0.94
0.96
0.98
1
1.02
1.04
1.06
1.08
1.1
7
6
5
4
3
2
1
0


$m_{1/2}$ (GeV)
1000
900
800
700
600
500
400
300
200
100
0
0
500
1000
1500
2000
2500
3000
m_0 (GeV)
1
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1


1000
900
800
700
600
500
400
300
200
100
0
0
500
1000
1500
2000
2500
3000
10000
9999
9998
9997
9996
9995
9994
9993
9992
9991
9990
nch


$m_{1/2}$ (GeV)
1000
900
800
700
600
500
400
300
200
100
0
0
500
1000
1500
2000
2500
3000
m_0 (GeV)
0.25
0.2
0.15
0.1
0.05


$m_{1/2}$ (GeV)
1000
900
800
700
600
500
400
300
200
100
0
0
500
1000
1500
2000
2500
3000
m_0 (GeV)
0.2
0.15
0.1
0.05
0
-0.05
-0.1
-0.15
-0.2
Relative change in efficiency


$m_{1/2}$ (GeV)
1000
900
800
700
600
500
400
300
200
100
0
0
500
1000
1500
2000
2500
3000
m_0 (GeV)
0.2
0.15
0.1
0.05
0
-0.05
-0.1
-0.15
-0.2
Relative change in efficiency