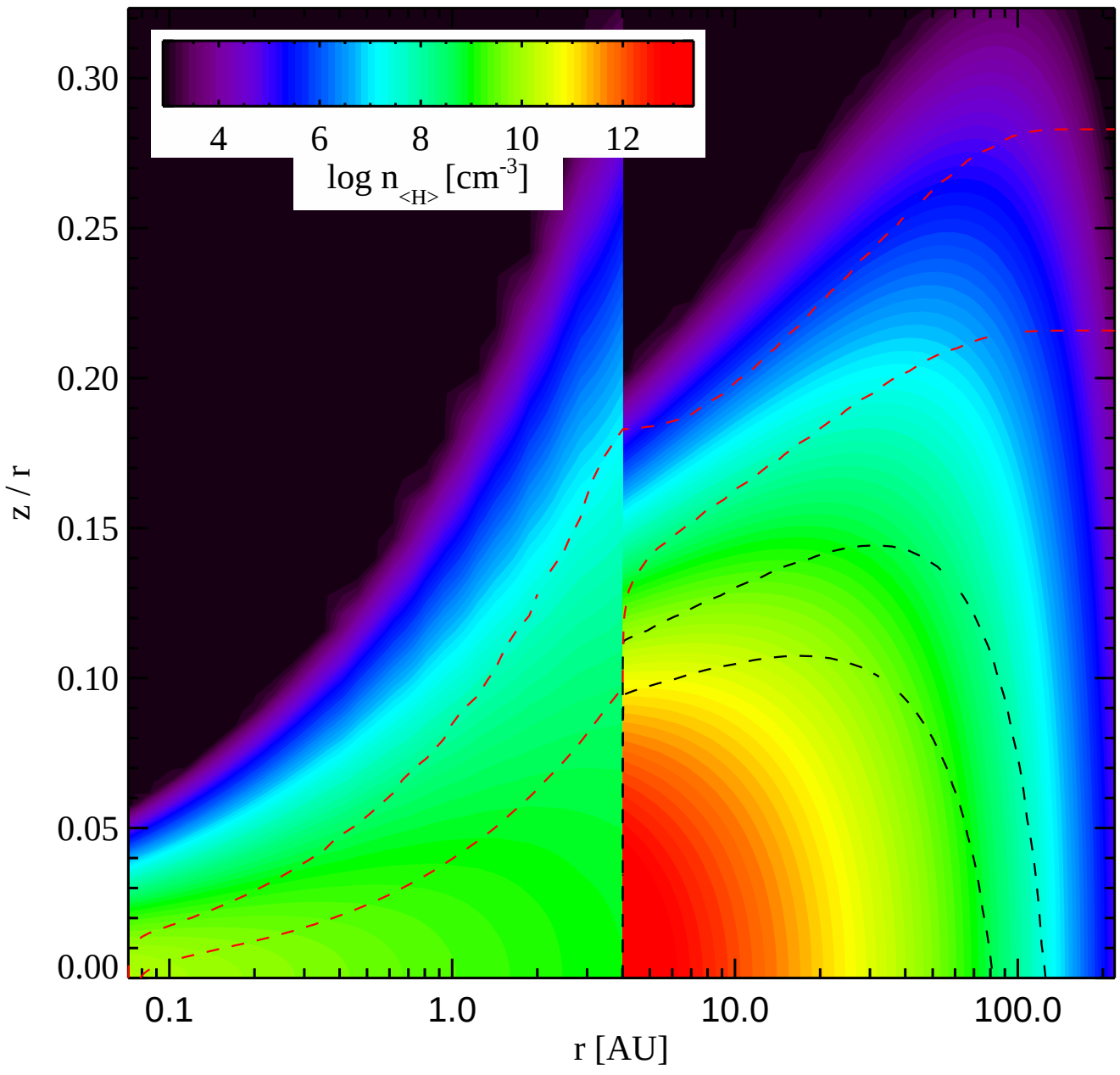
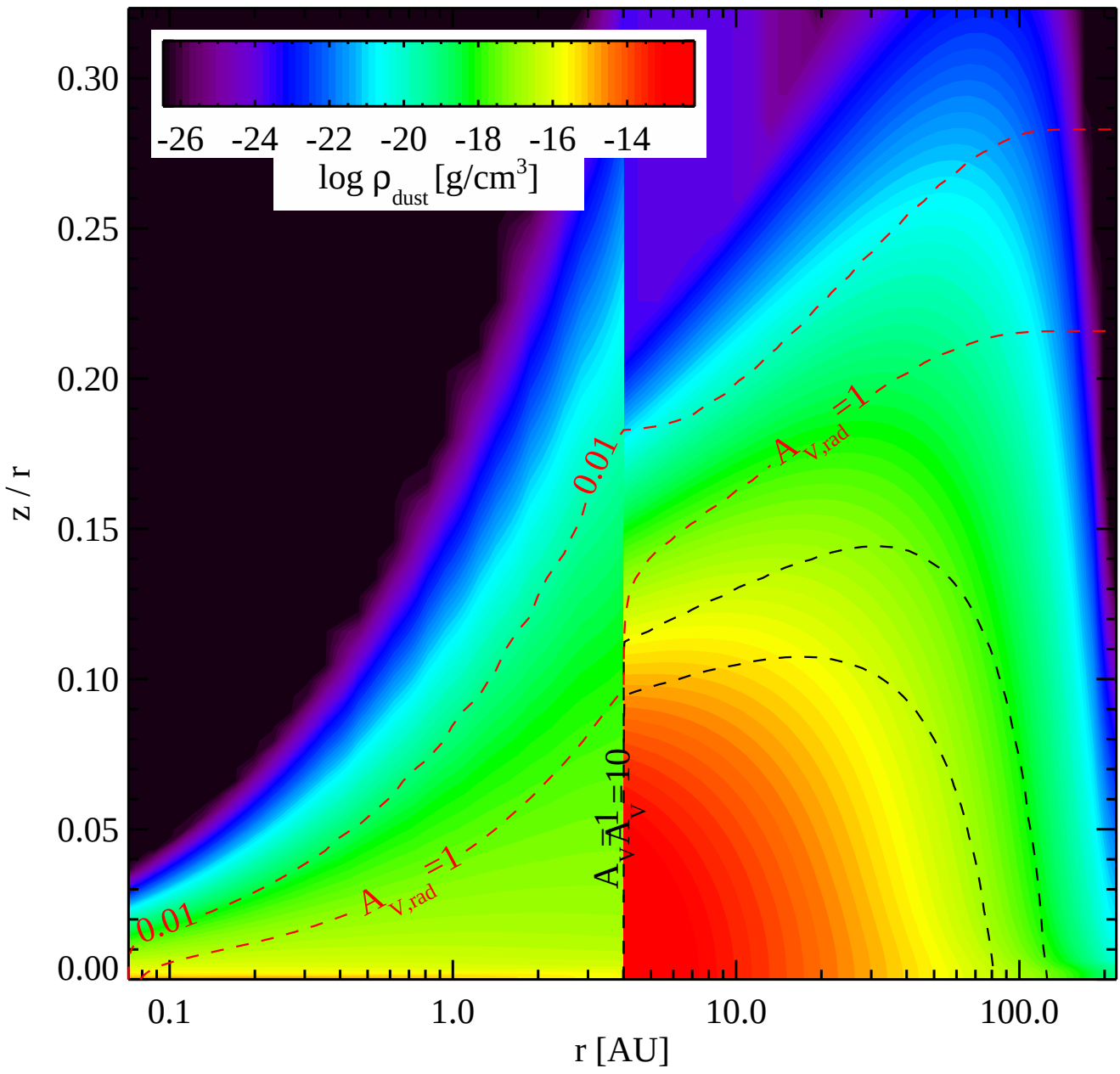
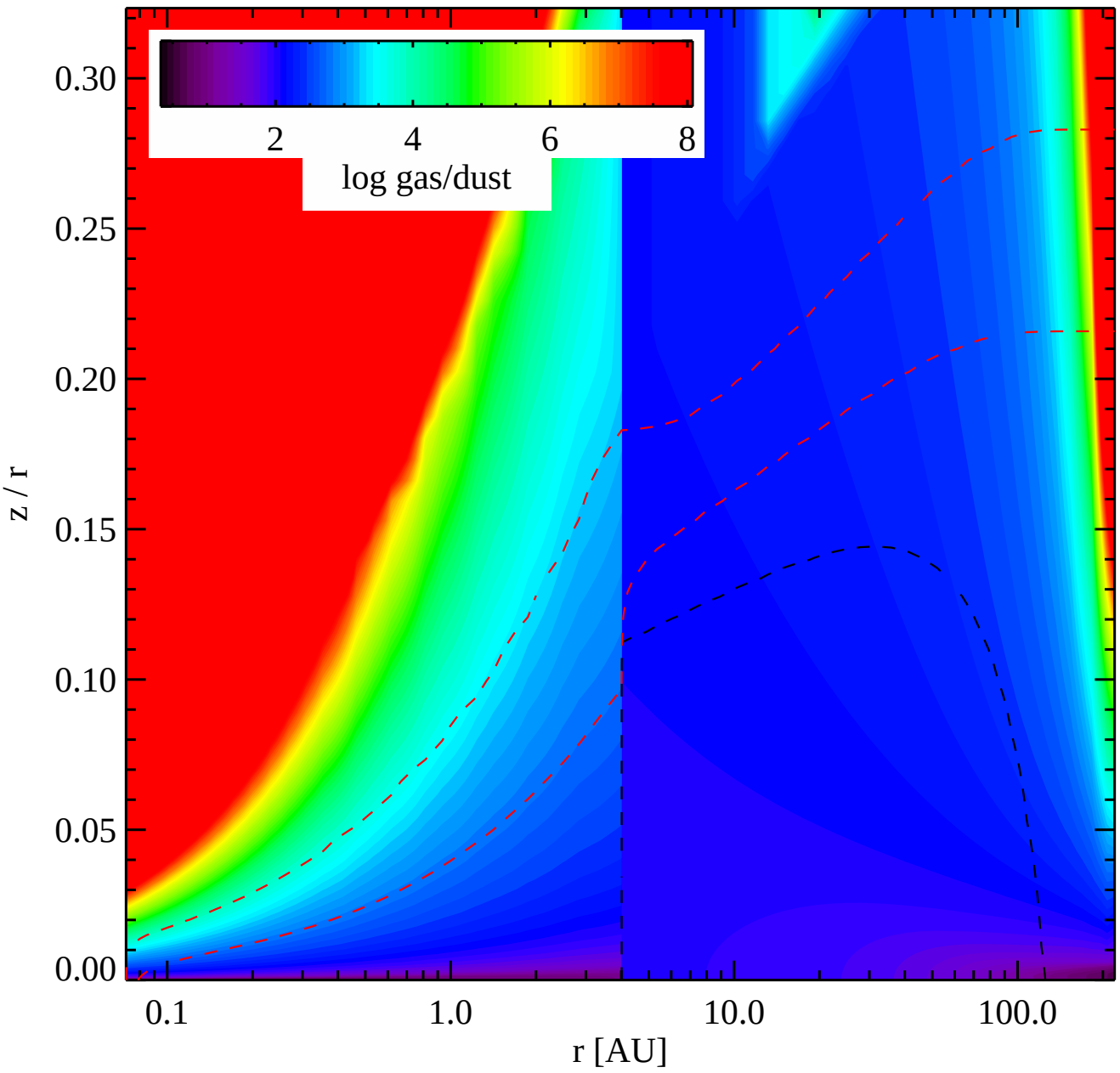
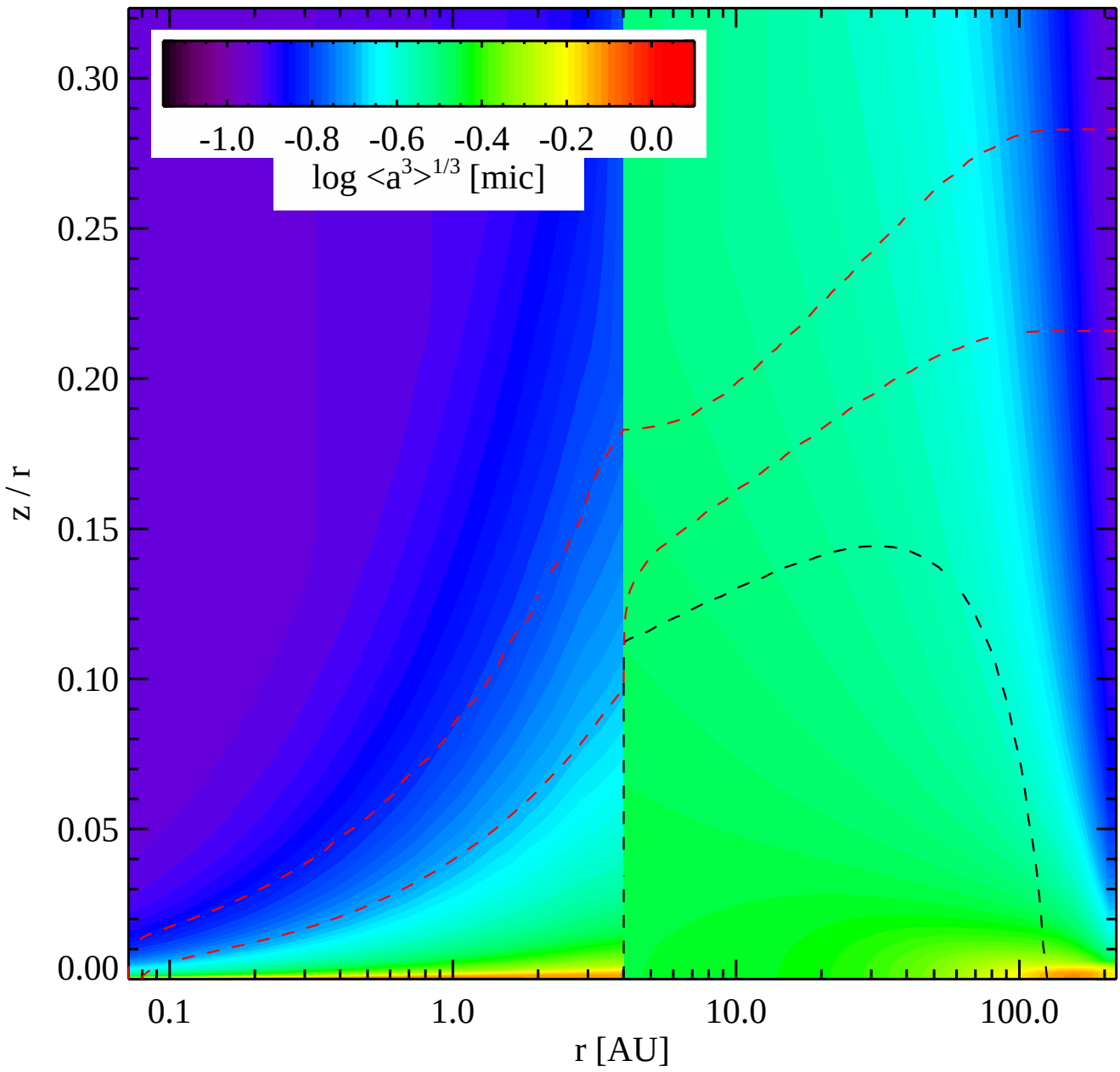
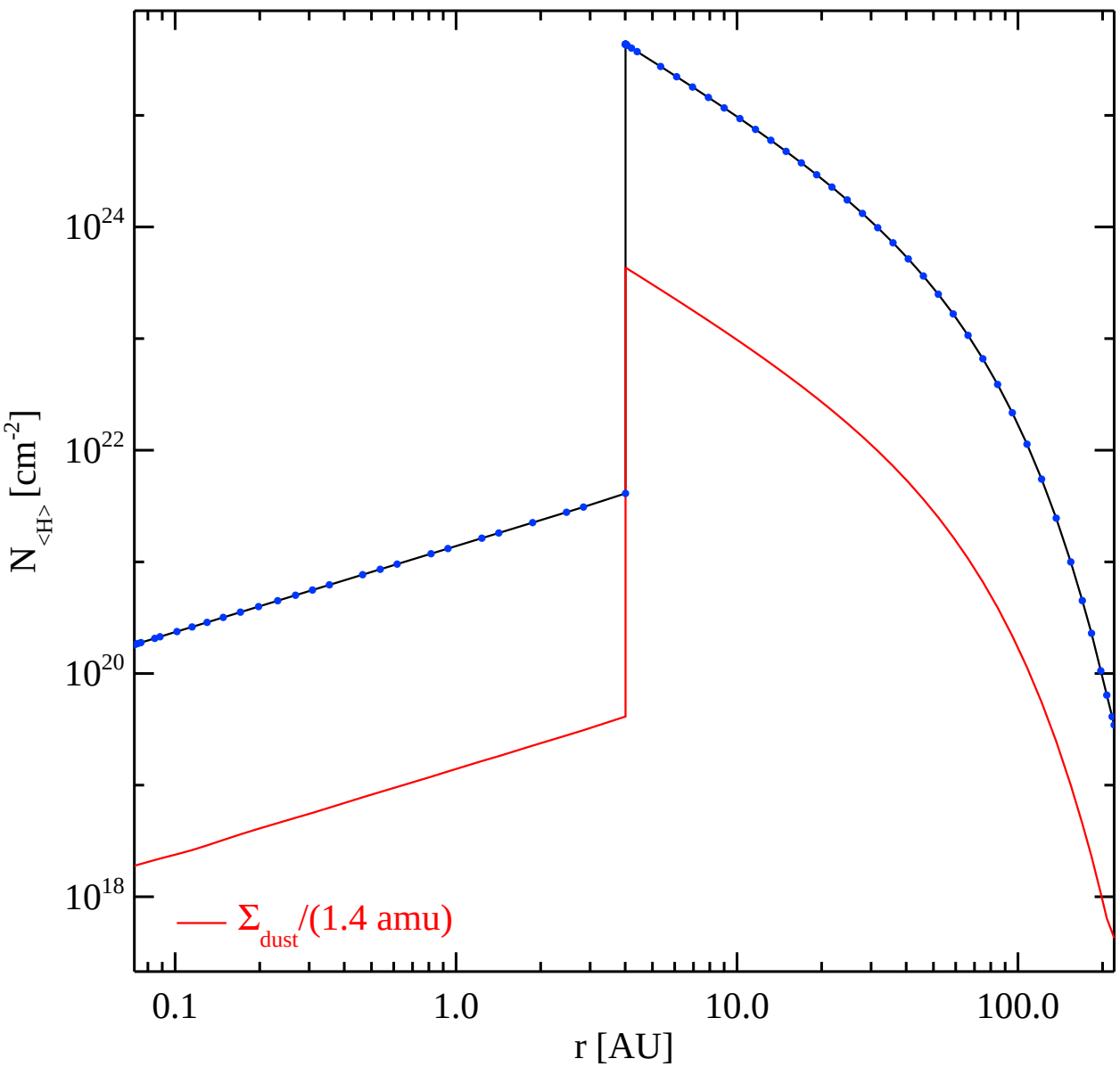
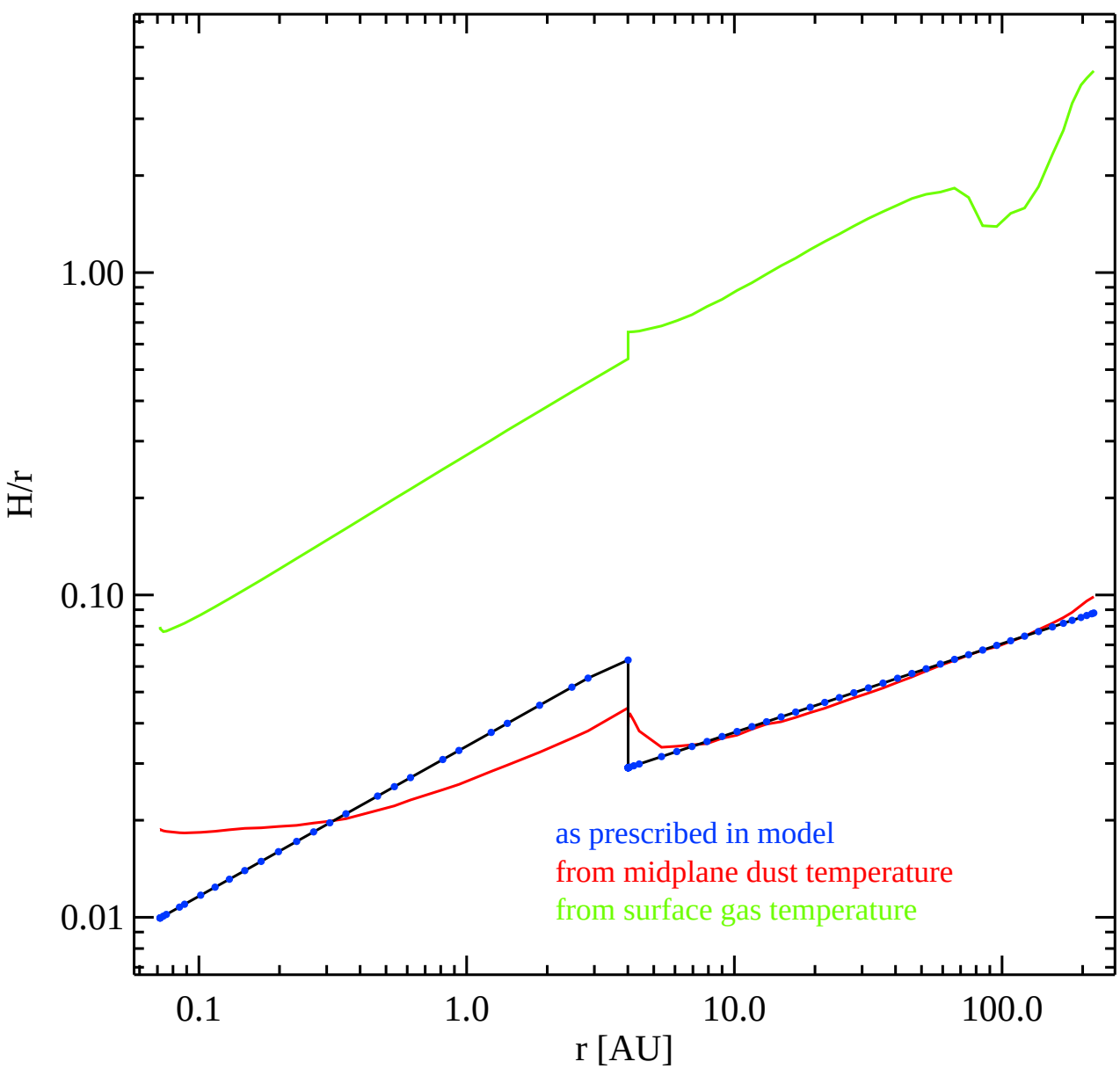

4
6
8
10
12
log n<H> [cm-3]
0.30
0.25
0.20
0.15
0.10
0.05
0.00
z / r
0.1
1.0
10.0
100.0
r [AU]

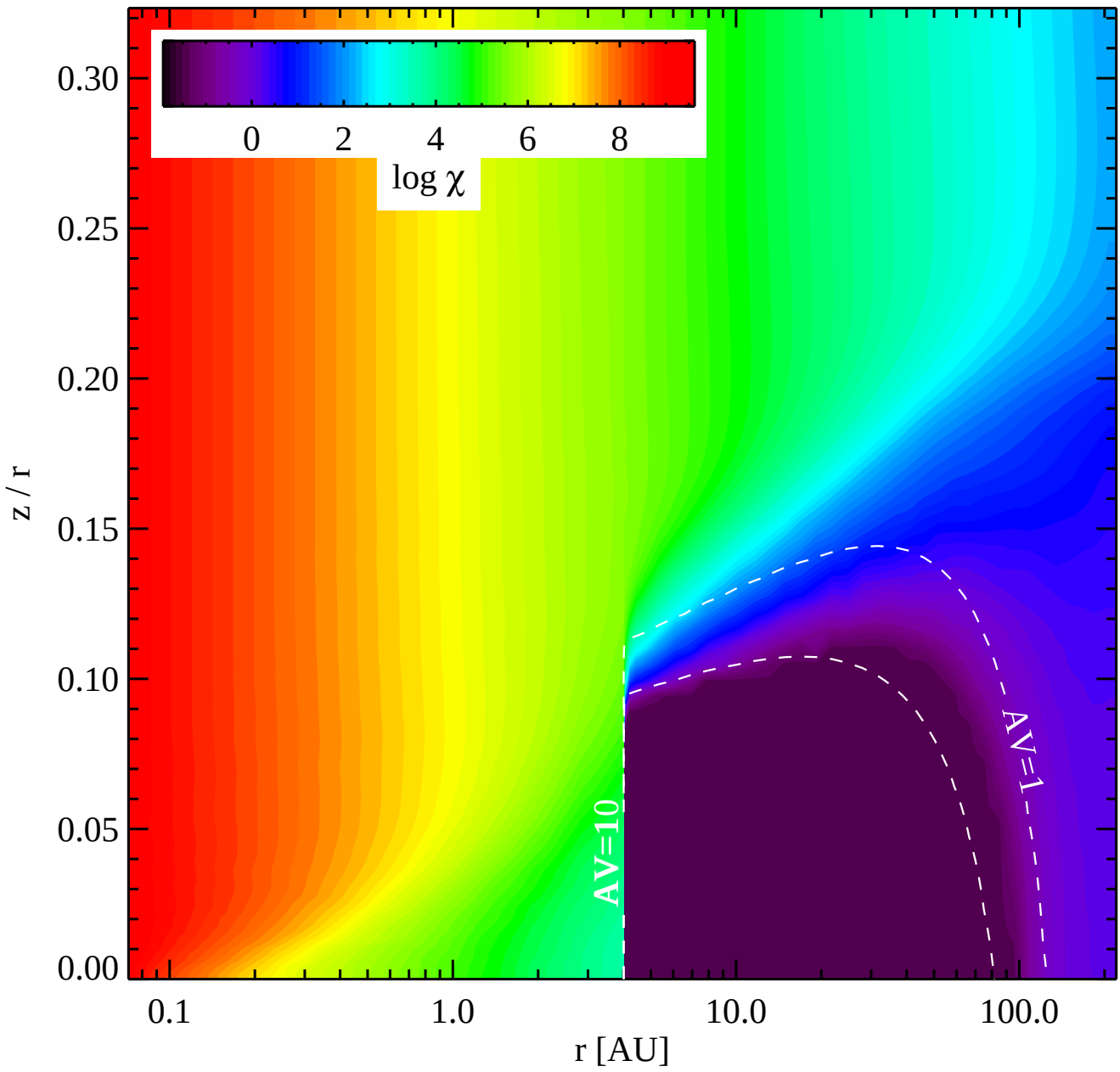

-26 -24 -22 -20 -18 -16 -14
log ρ dust [g/cm3]
0.30
0.25
0.20
0.15
0.10
0.05
0.00
z / r
0.1
1.0
10.0
100.0
r [AU]
0.01
AV,rad=1
0.01
AV,rad=1
AV=1
AV=10

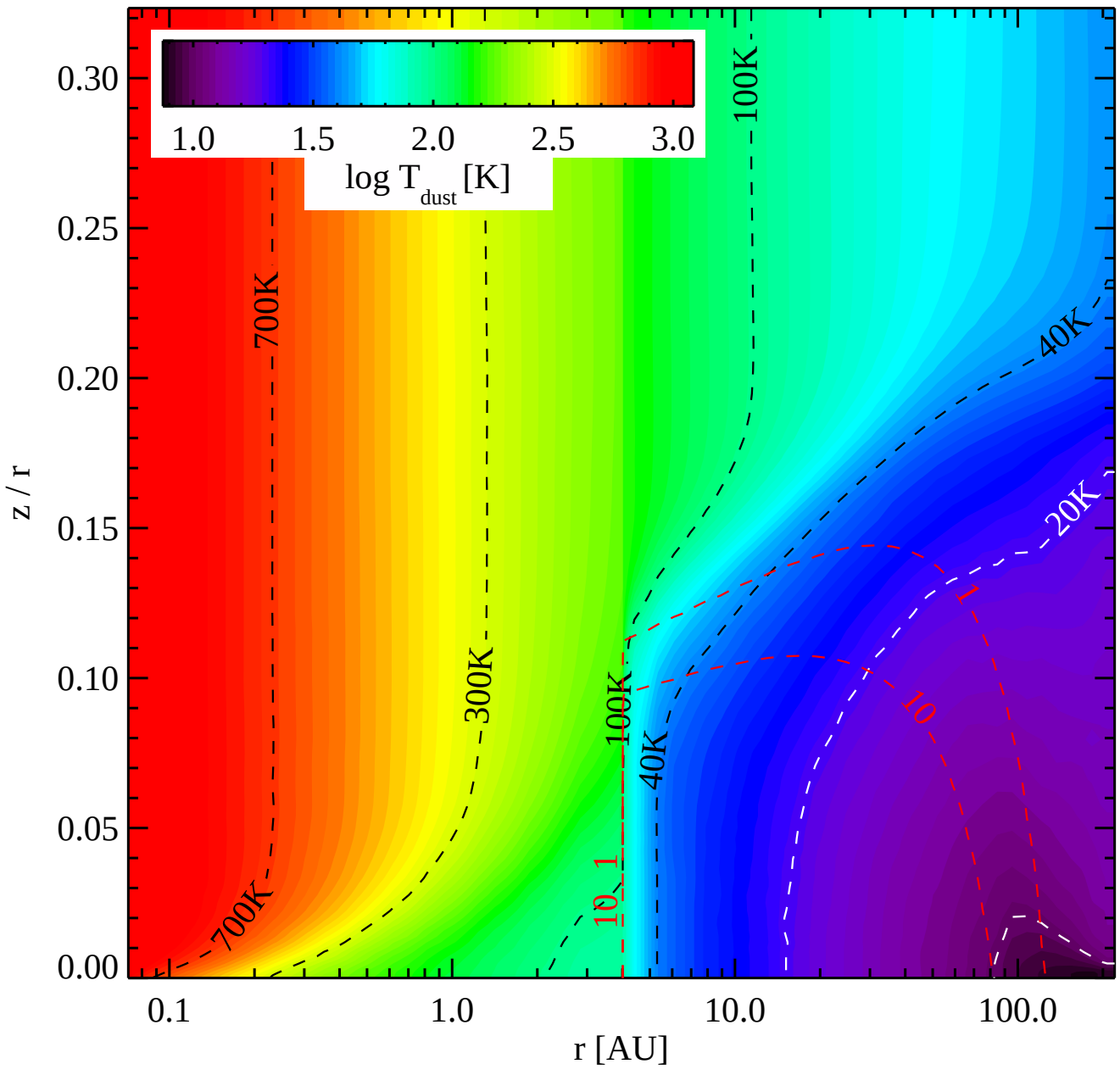

2
4
6
8
log gas/dust
0.30
0.25
0.20
0.15
0.10
0.05
0.00
z / r
0.1
1.0
10.0
100.0
r [AU]

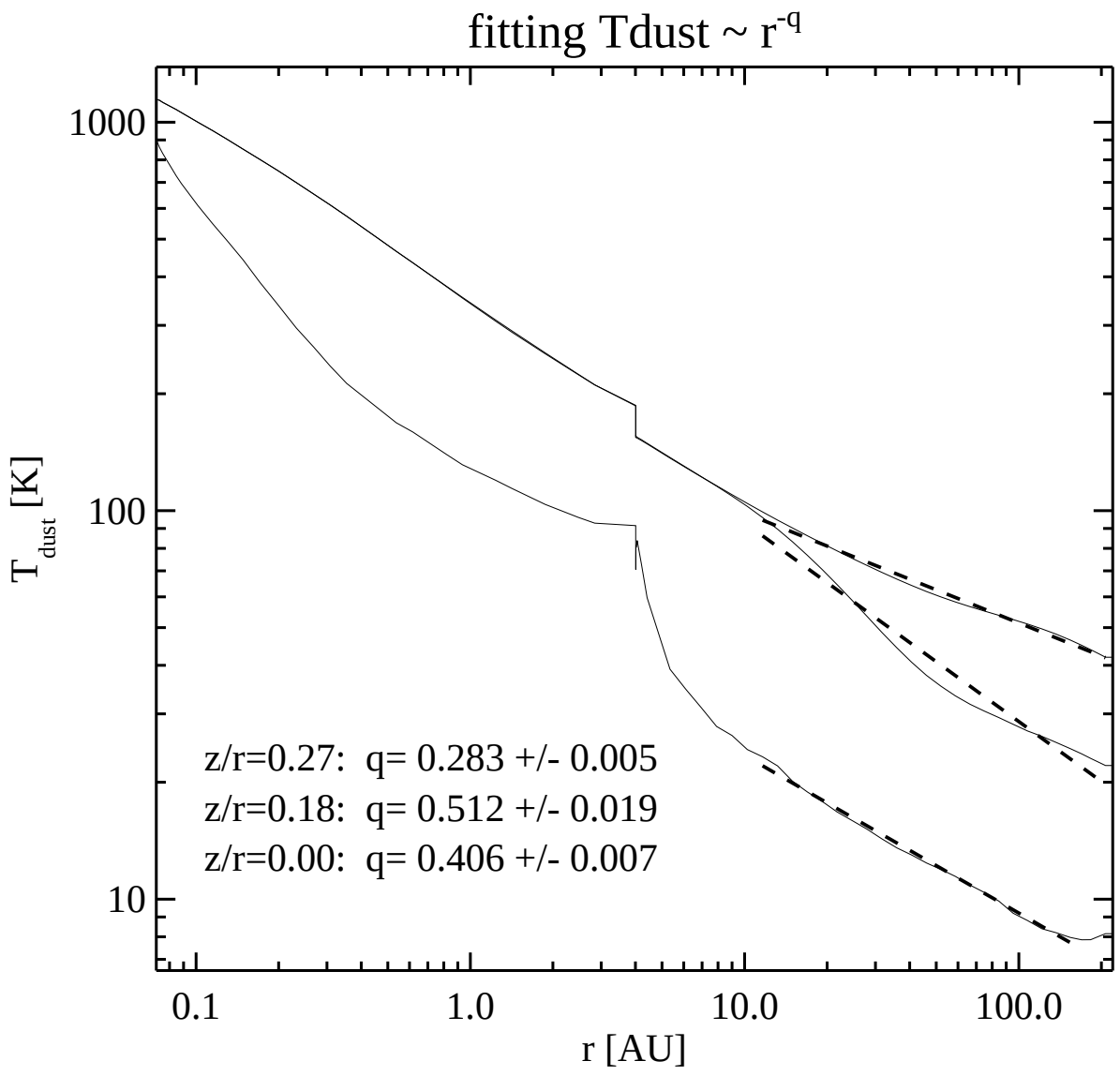

-1.0
-0.8
-0.6
-0.4
-0.2
0.0
log <a^3>^1/3 [mic]
0.30
0.25
0.20
0.15
0.10
0.05
0.00
z / r
0.1
1.0
10.0
100.0
r [AU]

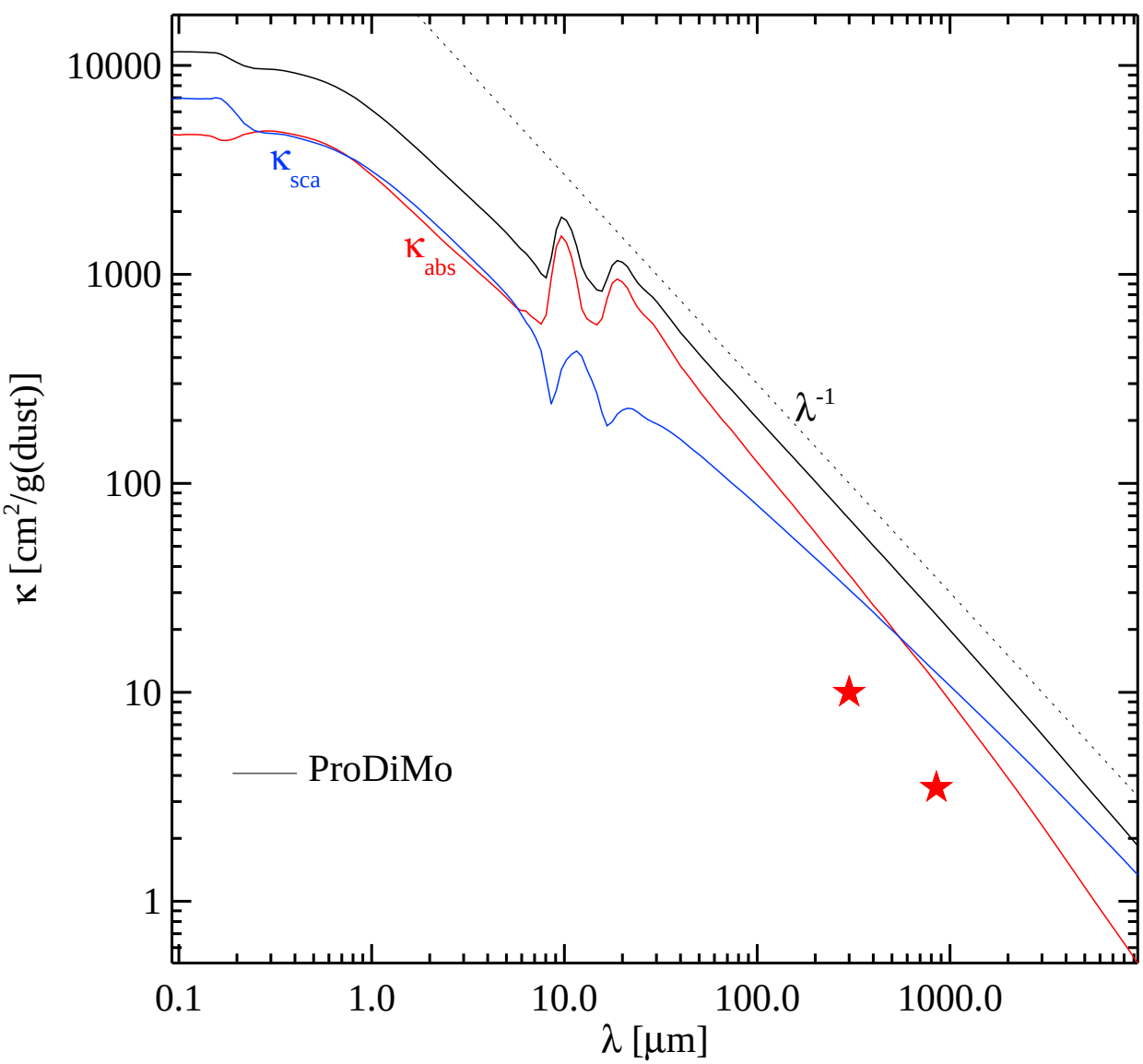

10^{24}
10^{22}
10^{20}
10^{18}
$N_{<H>}$ [cm^{-2}]
0.1
1.0
10.0
100.0
r [AU]
Σ_{dust}/(1.4 amu)

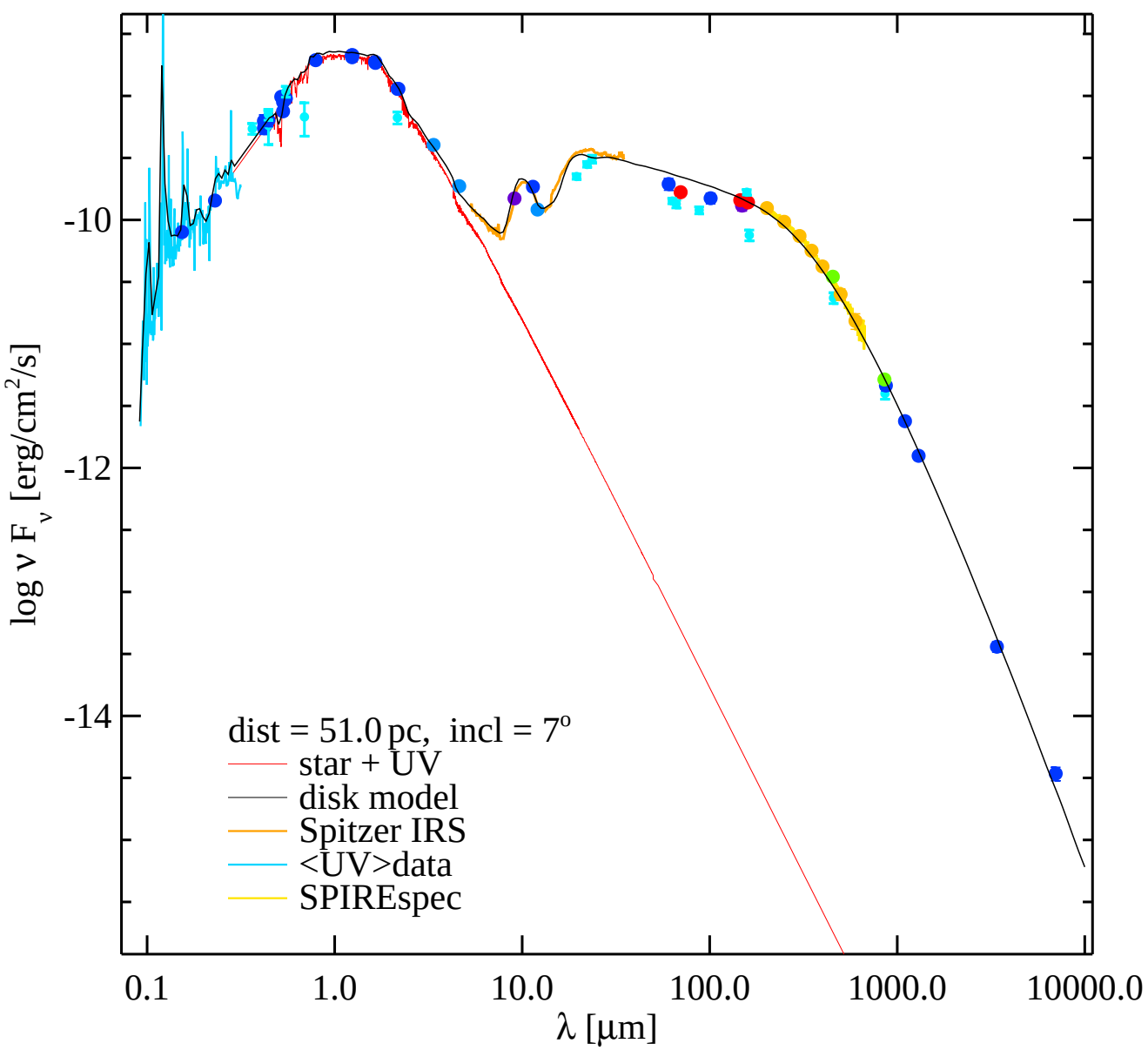

1.00
0.10
0.01
H/r
0.1
1.0
10.0
100.0
r [AU]
as prescribed in model
from midplane dust temperature
from surface gas temperature

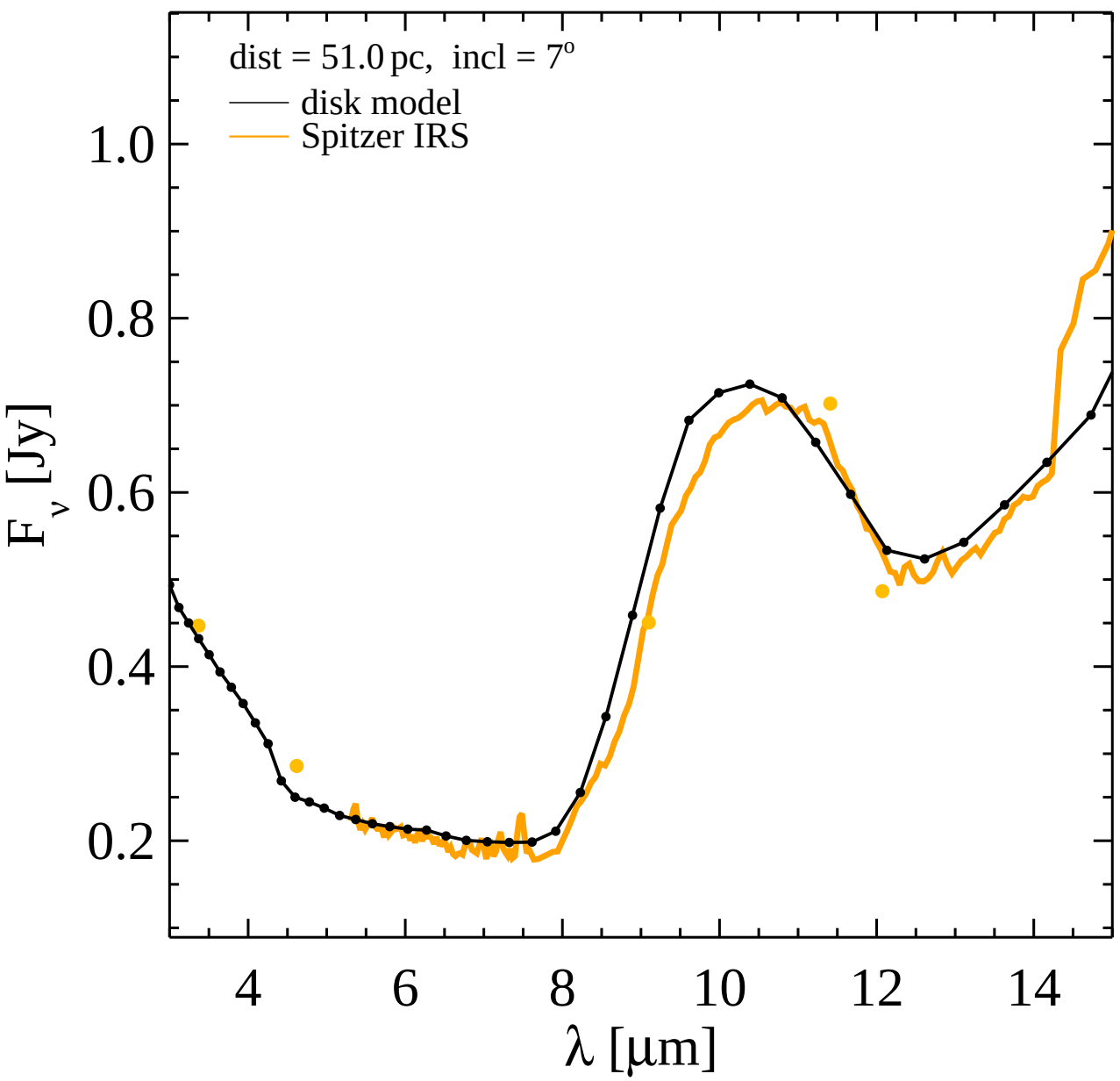

0
2
4
6
8
log χ
0.30
0.25
0.20
0.15
0.10
0.05
0.00
z / r
0.1
1.0
10.0
100.0
r [AU]
AV=10
AV=1

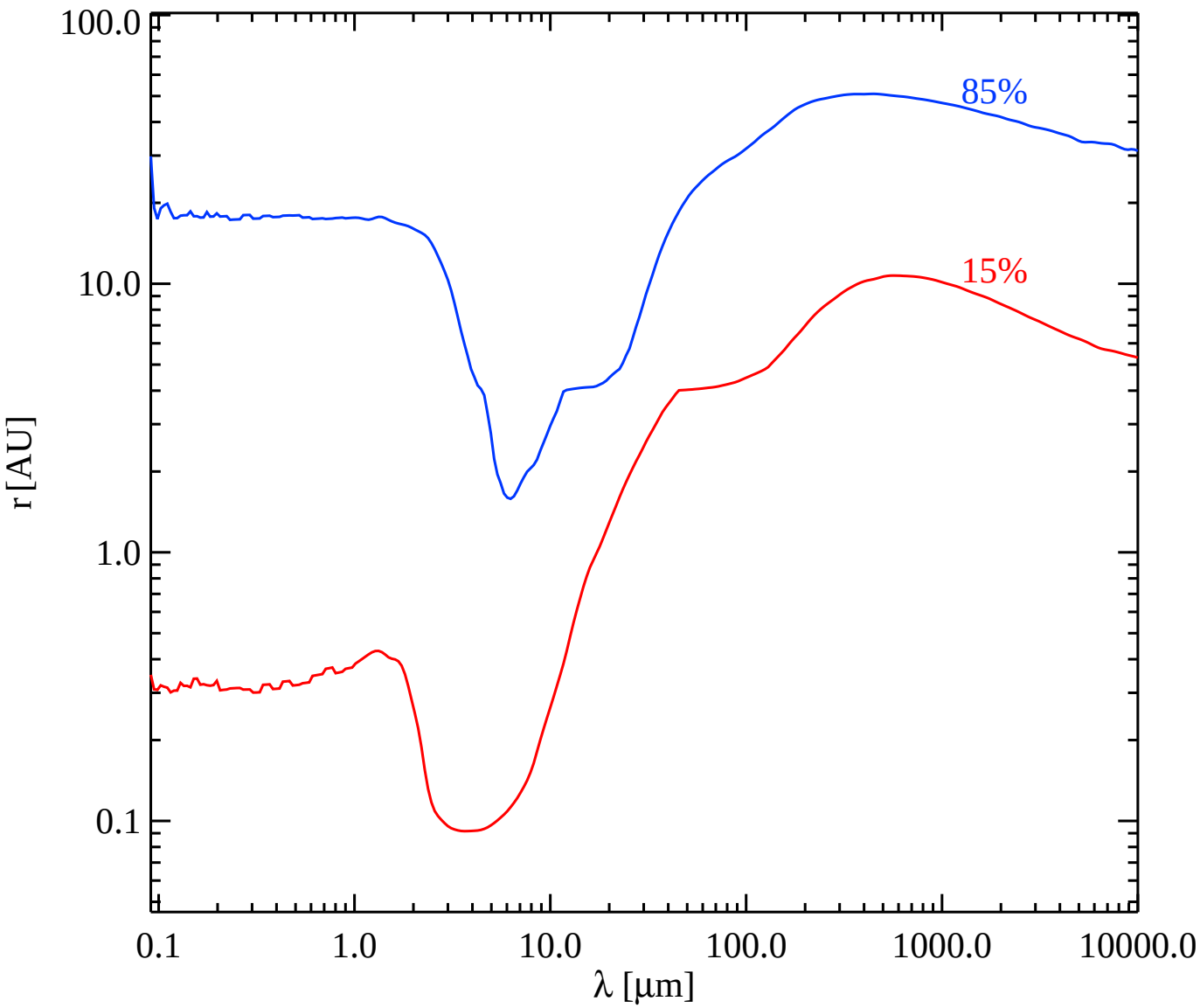

1.0
1.5
2.0
2.5
3.0
log T dust [K]
0.30
0.25
0.20
0.15
0.10
0.05
0.00
z / r
0.1
1.0
10.0
100.0
r [AU]
700K
700K
300K
100K
100K
40K
40K
20K
10
1
10
1

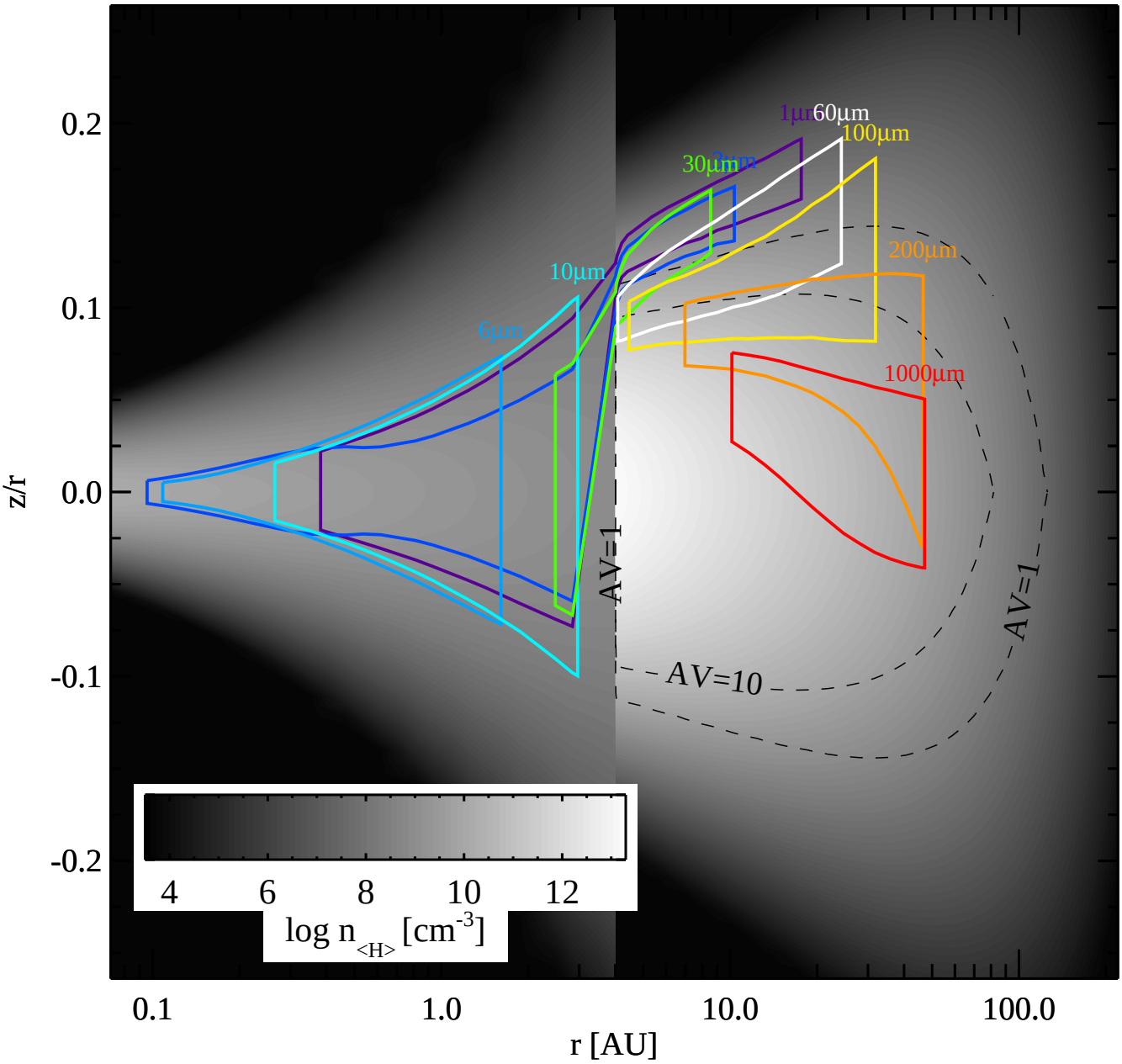

fitting Tdust ~ r^-q
1000
100
10
T dust [K]
0.1
1.0
10.0
100.0
r [AU]
z/r=0.27: q= 0.283 +/- 0.005
z/r=0.18: q= 0.512 +/- 0.019
z/r=0.00: q= 0.406 +/- 0.007

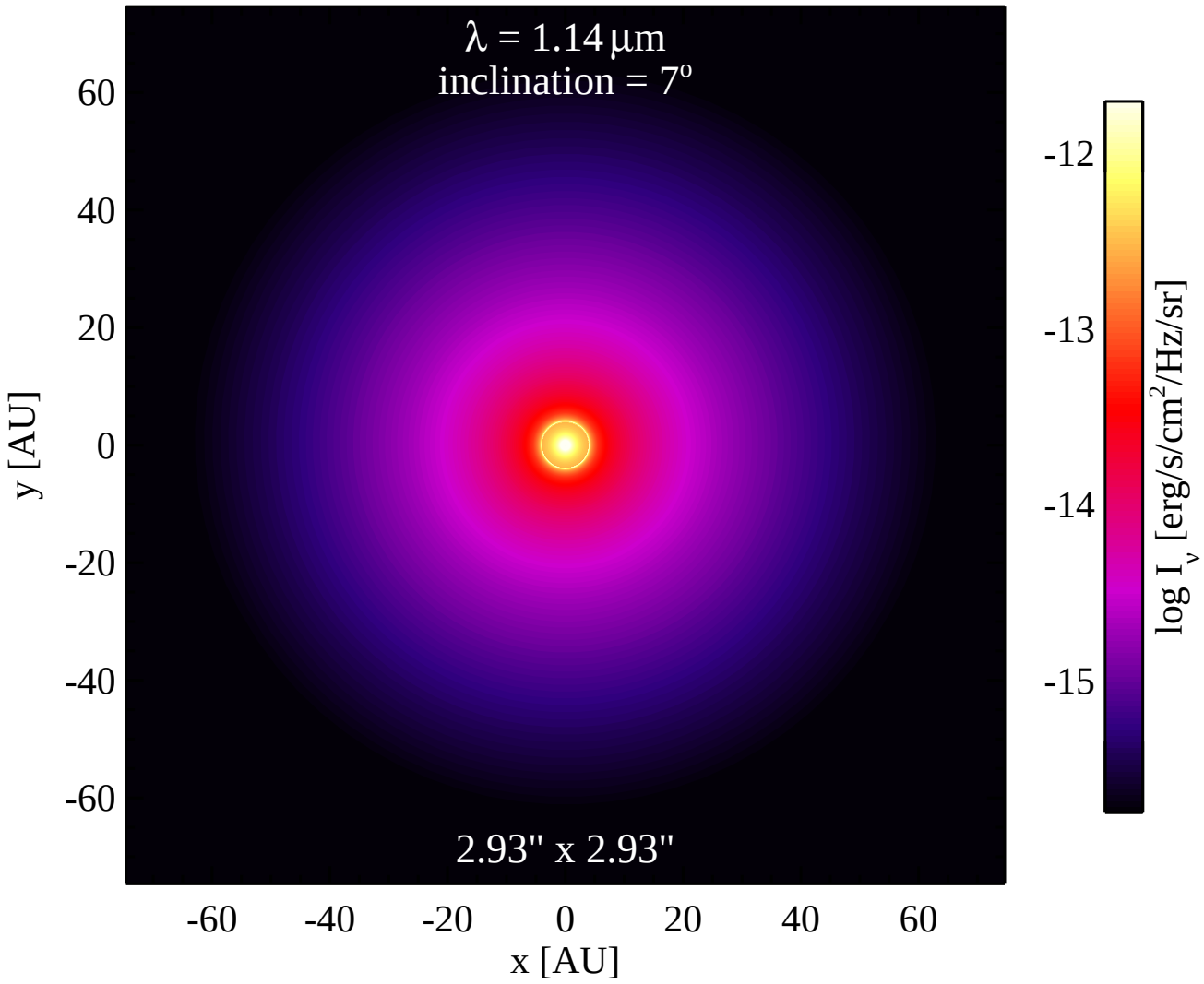

10000
1000
100
10
1
κ [cm²/g(dust)]
κsca
κabs
λ-1
ProDiMo
0.1
1.0
10.0
100.0
1000.0
λ [μm]

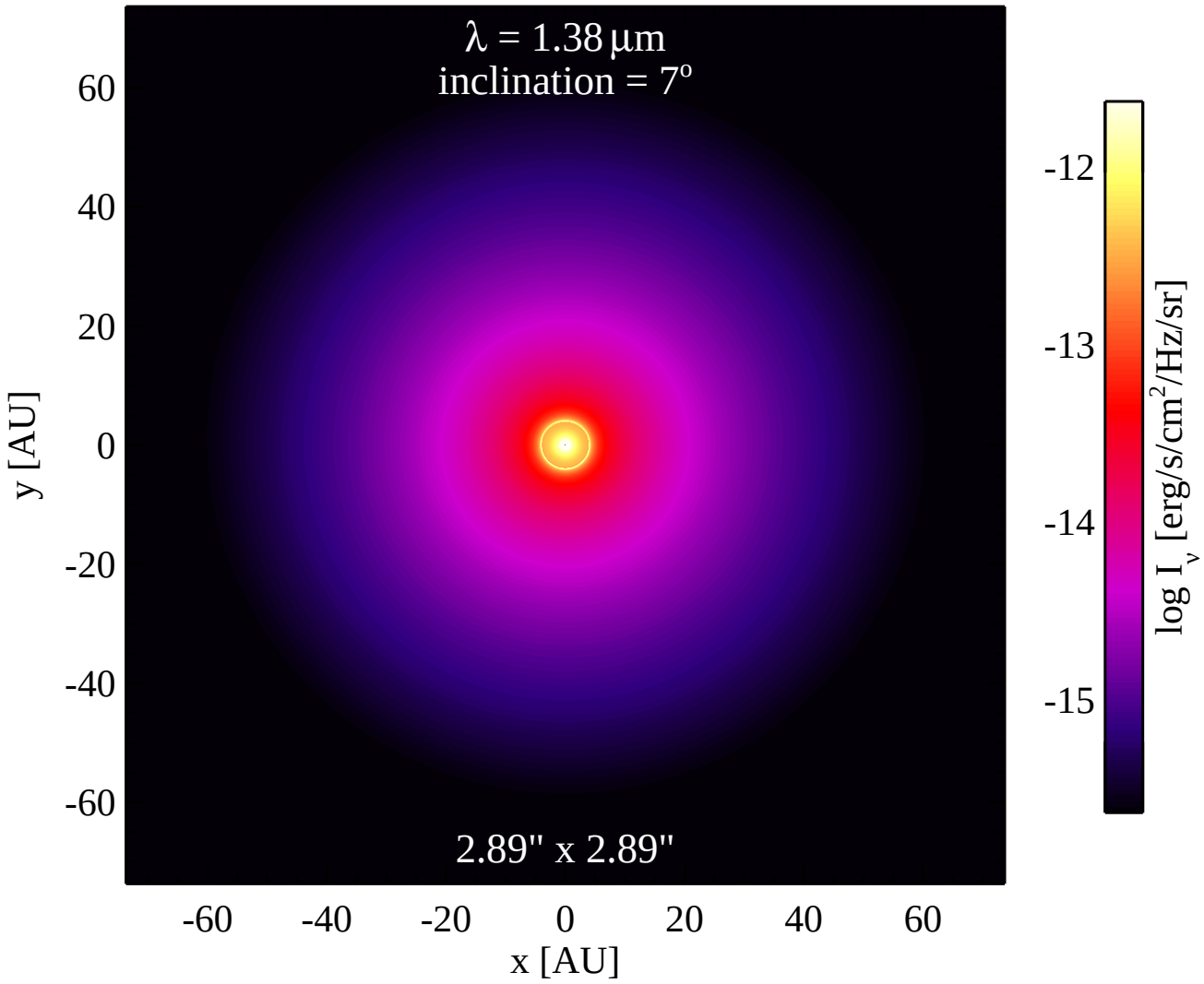

-10
-12
-14
log ν F_ν [erg/cm²/s]
0.1
1.0
10.0
100.0
1000.0
10000.0
λ [μm]
dist = 51.0 pc, incl = 7°
star + UV
disk model
Spitzer IRS
<UV>data
SPIREspec

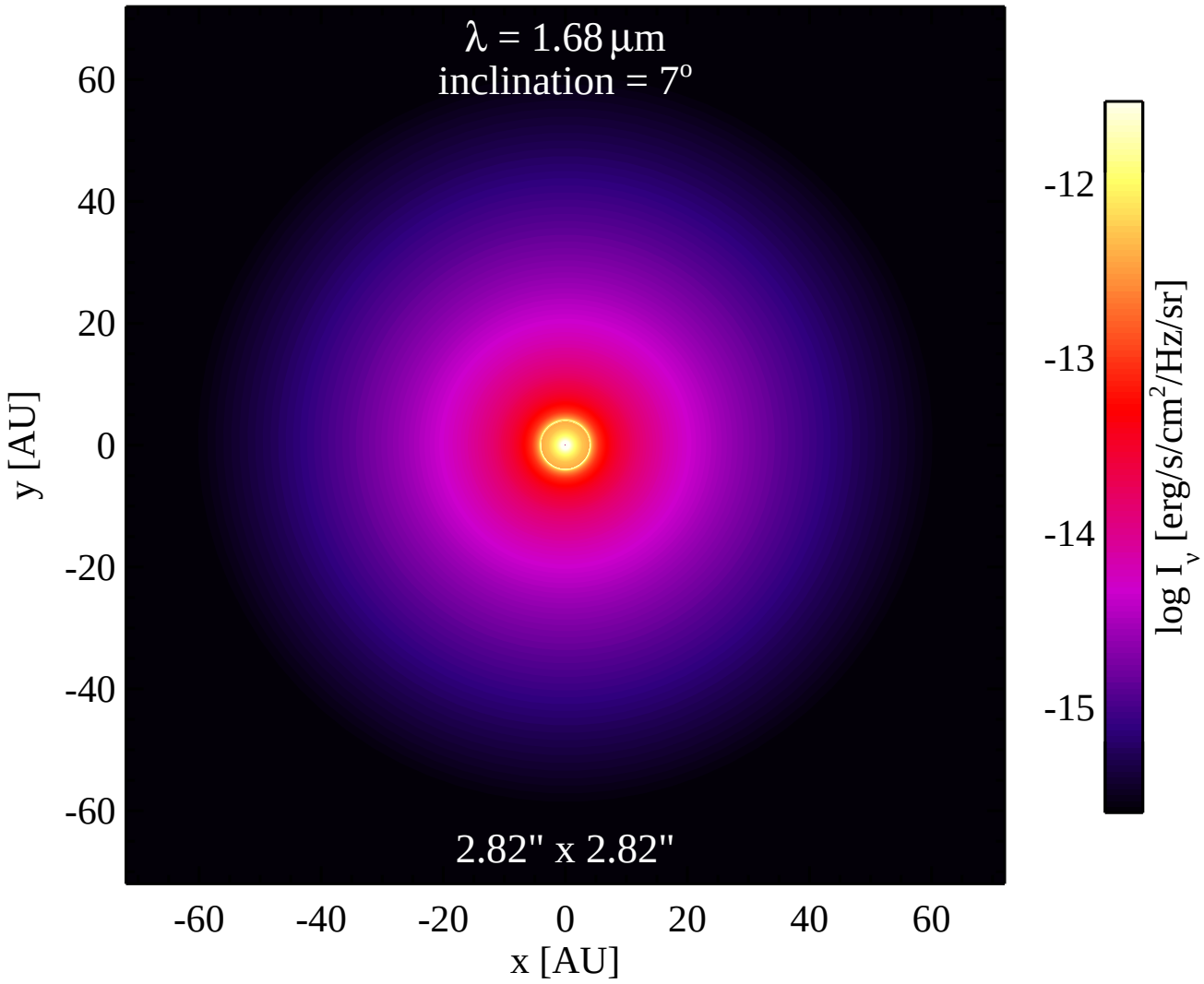

dist = 51.0 pc, incl = 7°
disk model
Spitzer IRS
1.0
0.8
0.6
0.4
0.2
F_ν [Jy]
4
6
8
10
12
14
λ [μm]

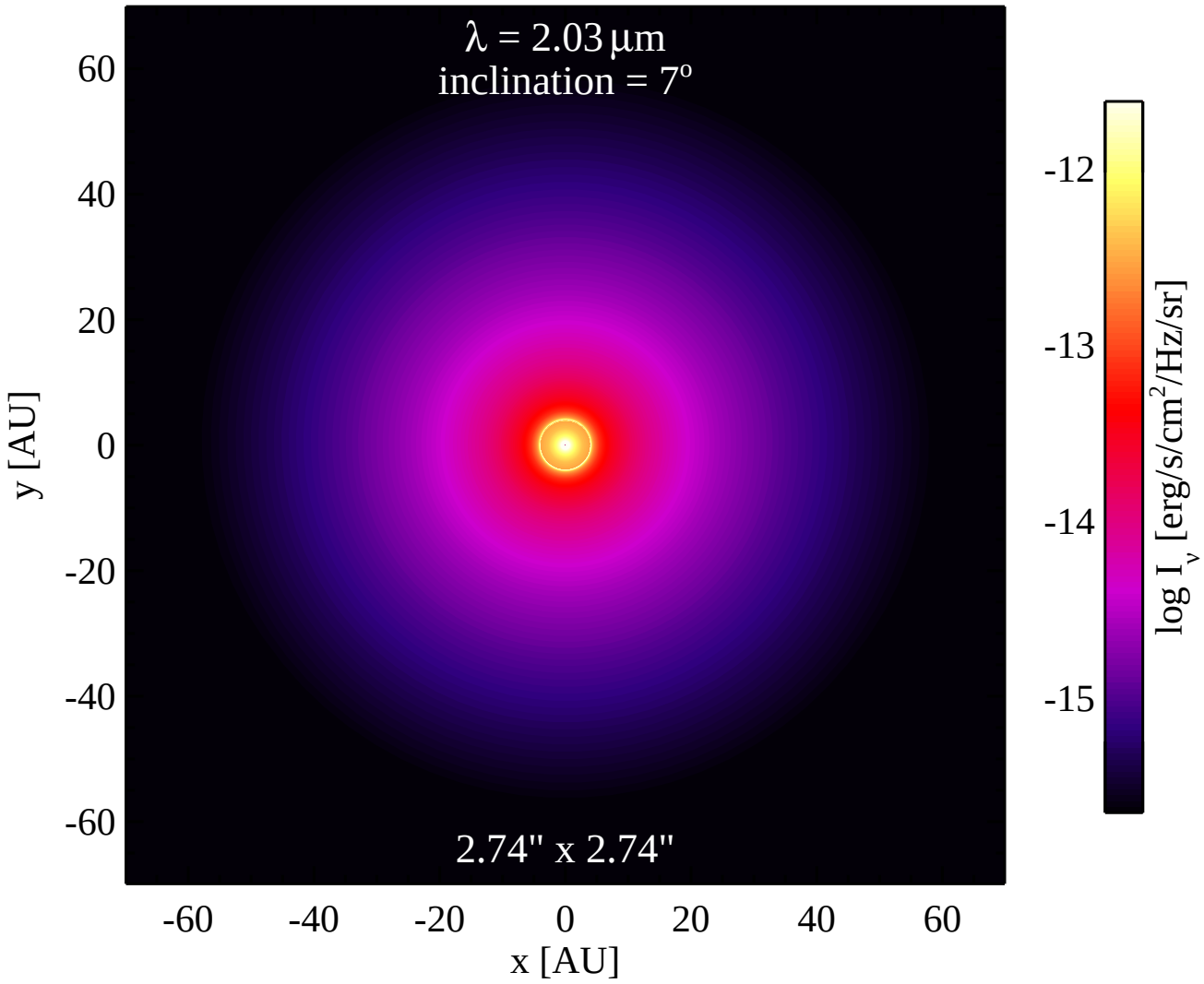

100.0
10.0
1.0
0.1
r [AU]
85%
15%
0.1
1.0
10.0
100.0
1000.0
10000.0
λ [μm]

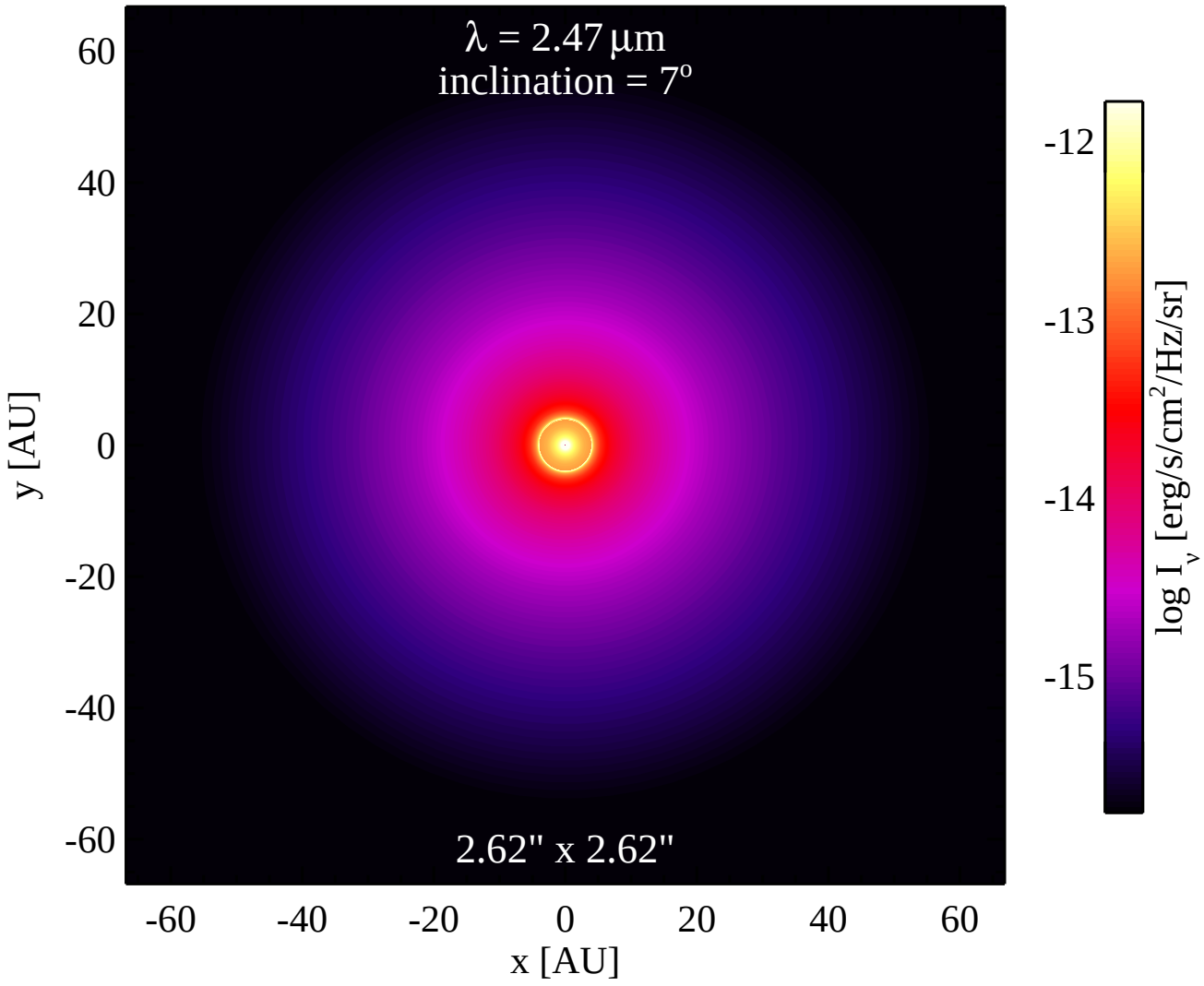

0.2
0.1
0.0
-0.1
-0.2
z/r
0.1
1.0
10.0
100.0
r [AU]
1µm
60µm
100µm
30µm
2µm
10µm
6µm
200µm
1000µm
AV=1
AV=10
AV=1
4
6
8
10
12
log n<H> [cm-3]

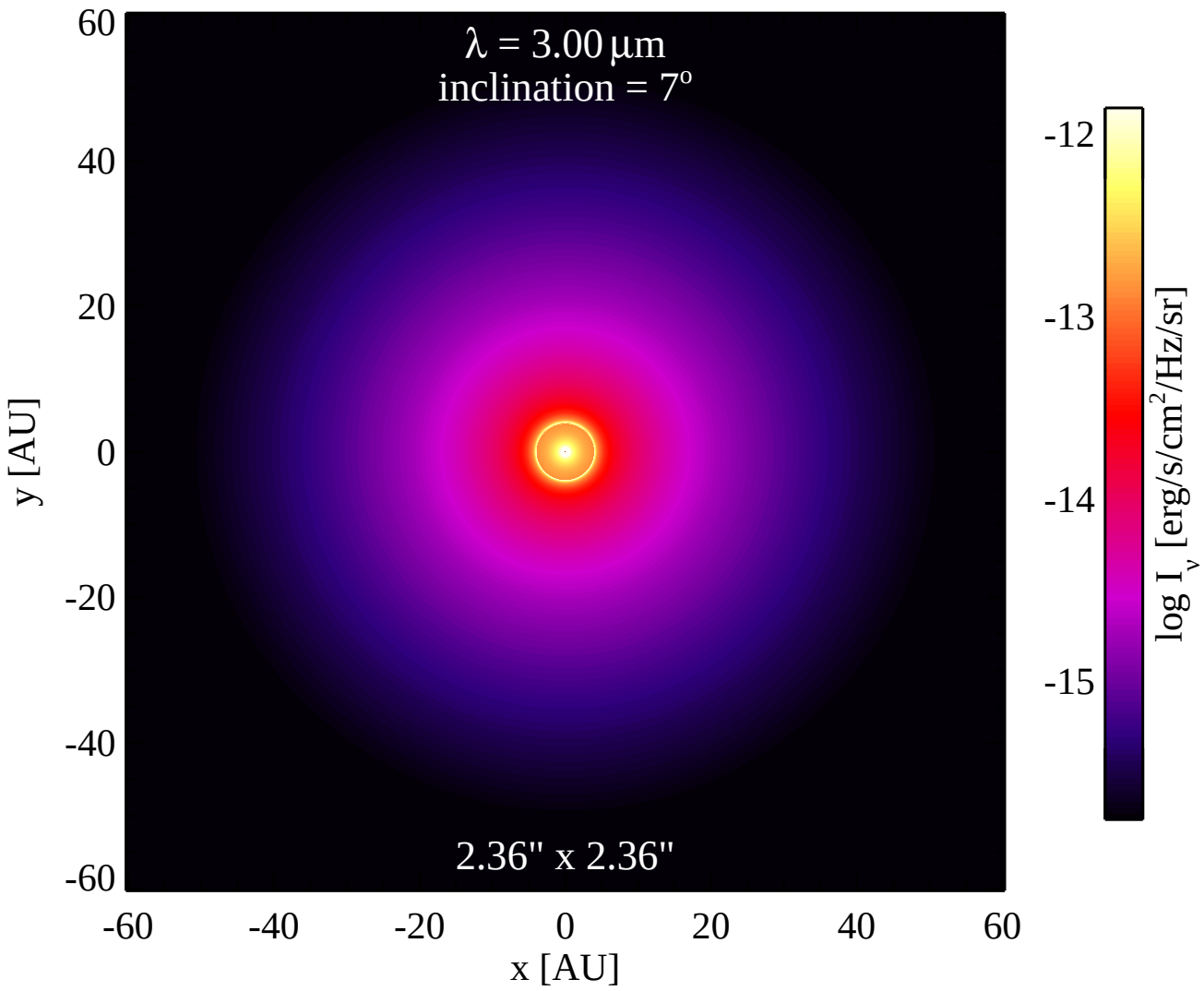

λ = 1.14 μm
inclination = 7°
2.93" x 2.93"
60
40
20
0
-20
-40
-60
y [AU]
-60
-40
-20
0
20
40
60
x [AU]
-12
-13
-14
-15
log I_ν [erg/s/cm²/Hz/sr]

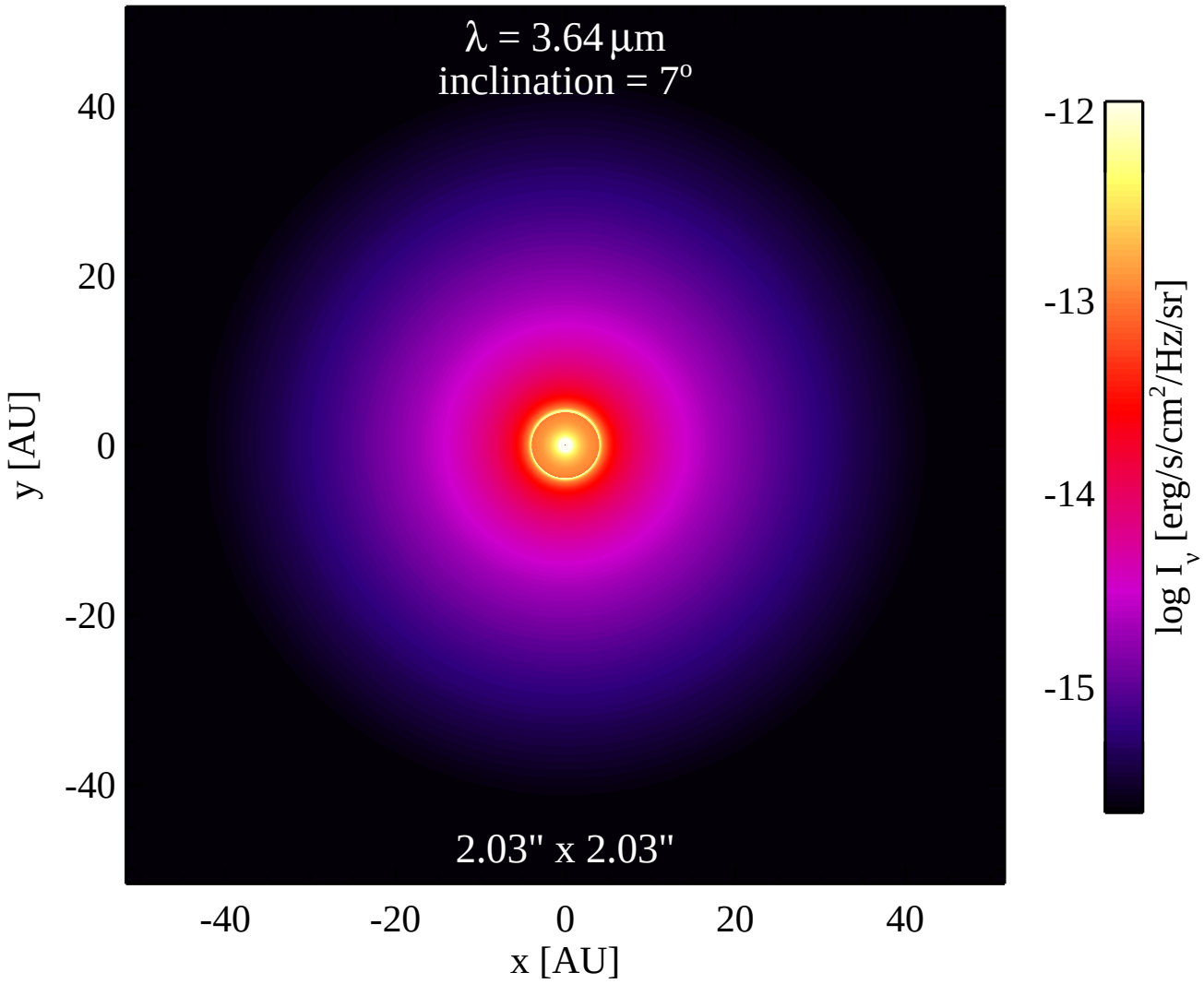

λ = 1.38 μm
inclination = 7°
2.89" x 2.89"
60
40
20
0
-20
-40
-60
y [AU]
-60
-40
-20
0
20
40
60
x [AU]
-12
-13
-14
-15
log I_ν [erg/s/cm²/Hz/sr]

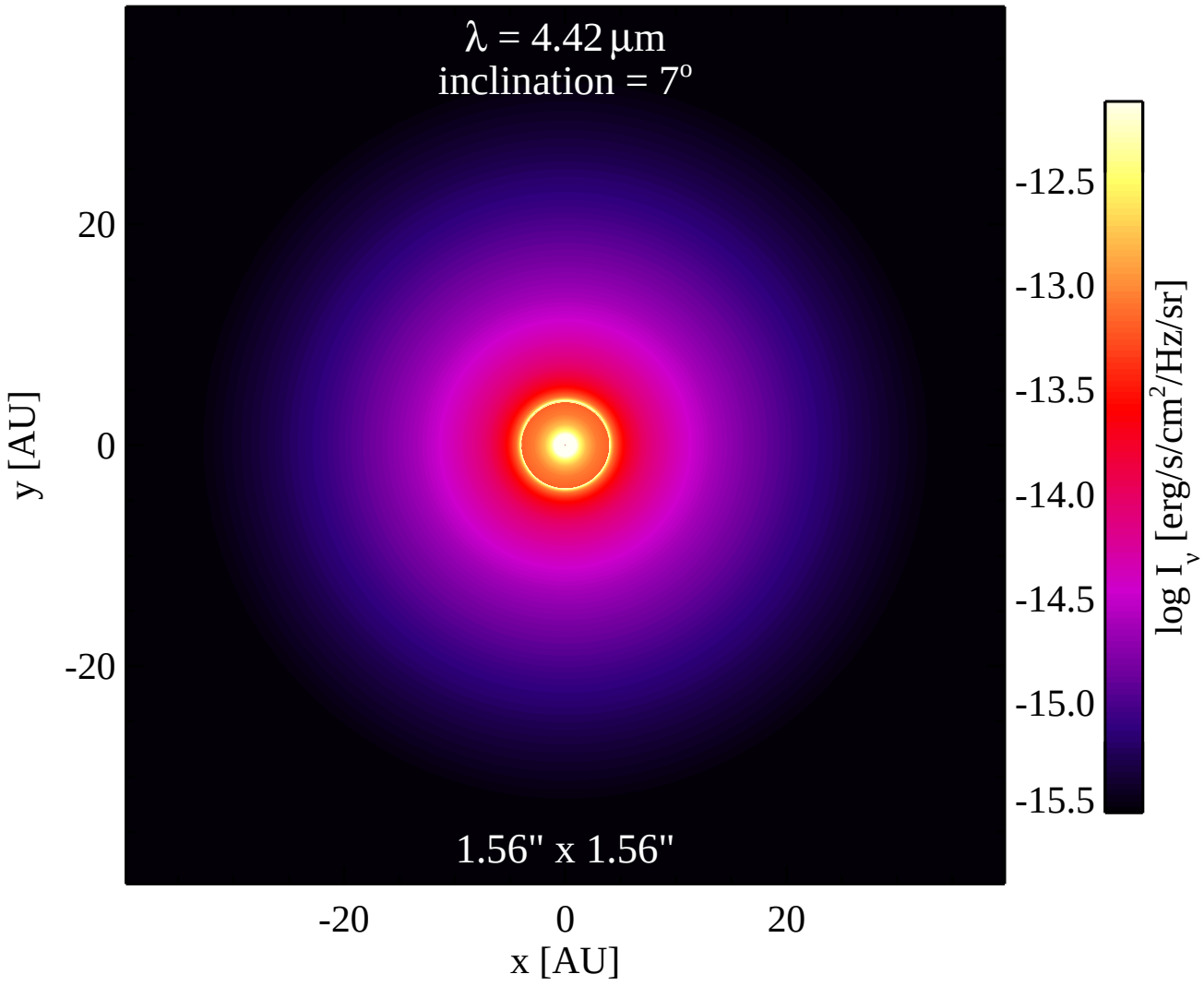

λ = 1.68 μm
inclination = 7°
2.82" x 2.82"
60
40
20
0
-20
-40
-60
y [AU]
-60
-40
-20
0
20
40
60
x [AU]
-12
-13
-14
-15
log I_ν [erg/s/cm²/Hz/sr]

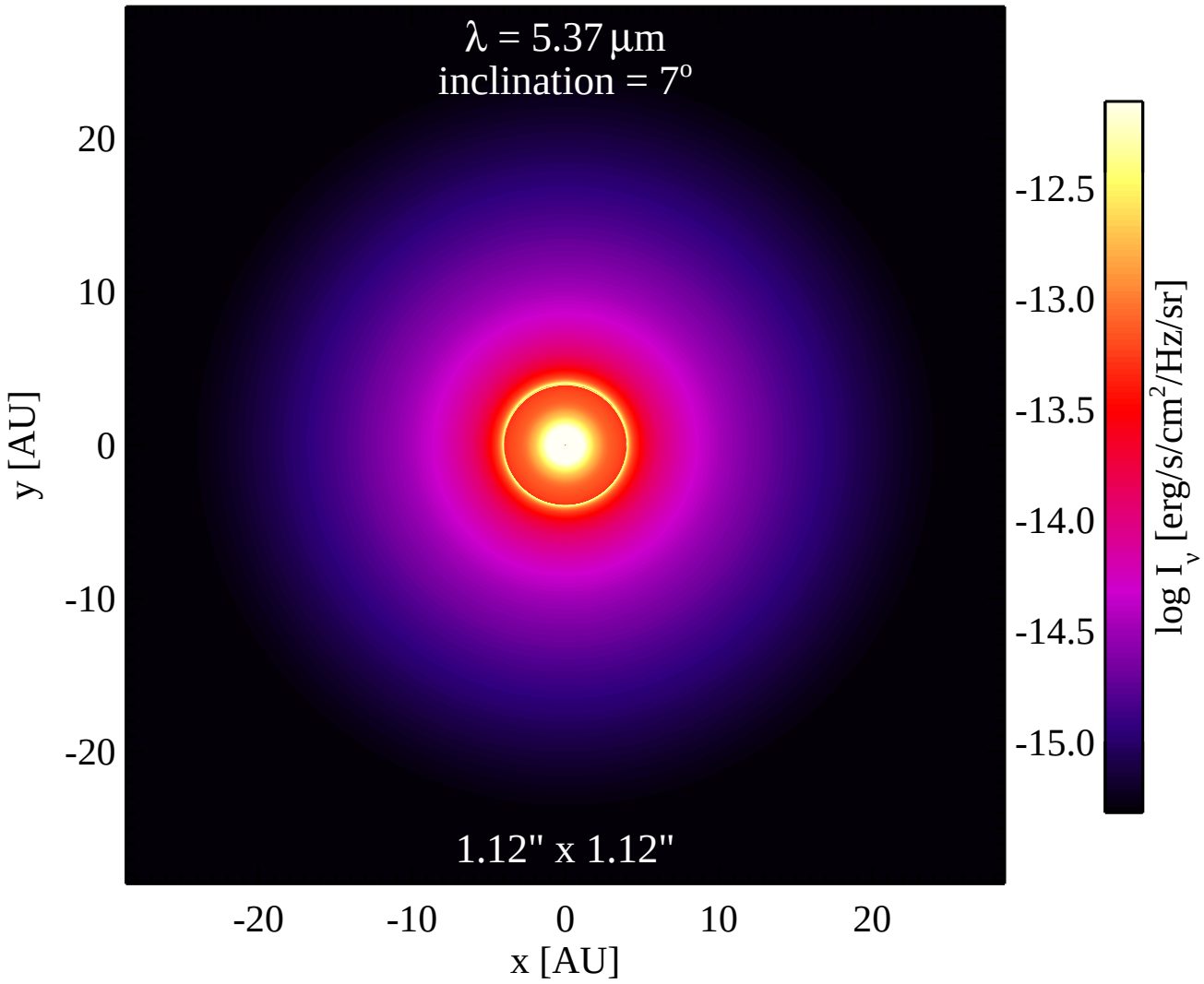

λ = 2.03 μm
inclination = 7°
2.74" x 2.74"
60
40
20
0
-20
-40
-60
y [AU]
-60
-40
-20
0
20
40
60
x [AU]
-12
-13
-14
-15
log I_ν [erg/s/cm²/Hz/sr]

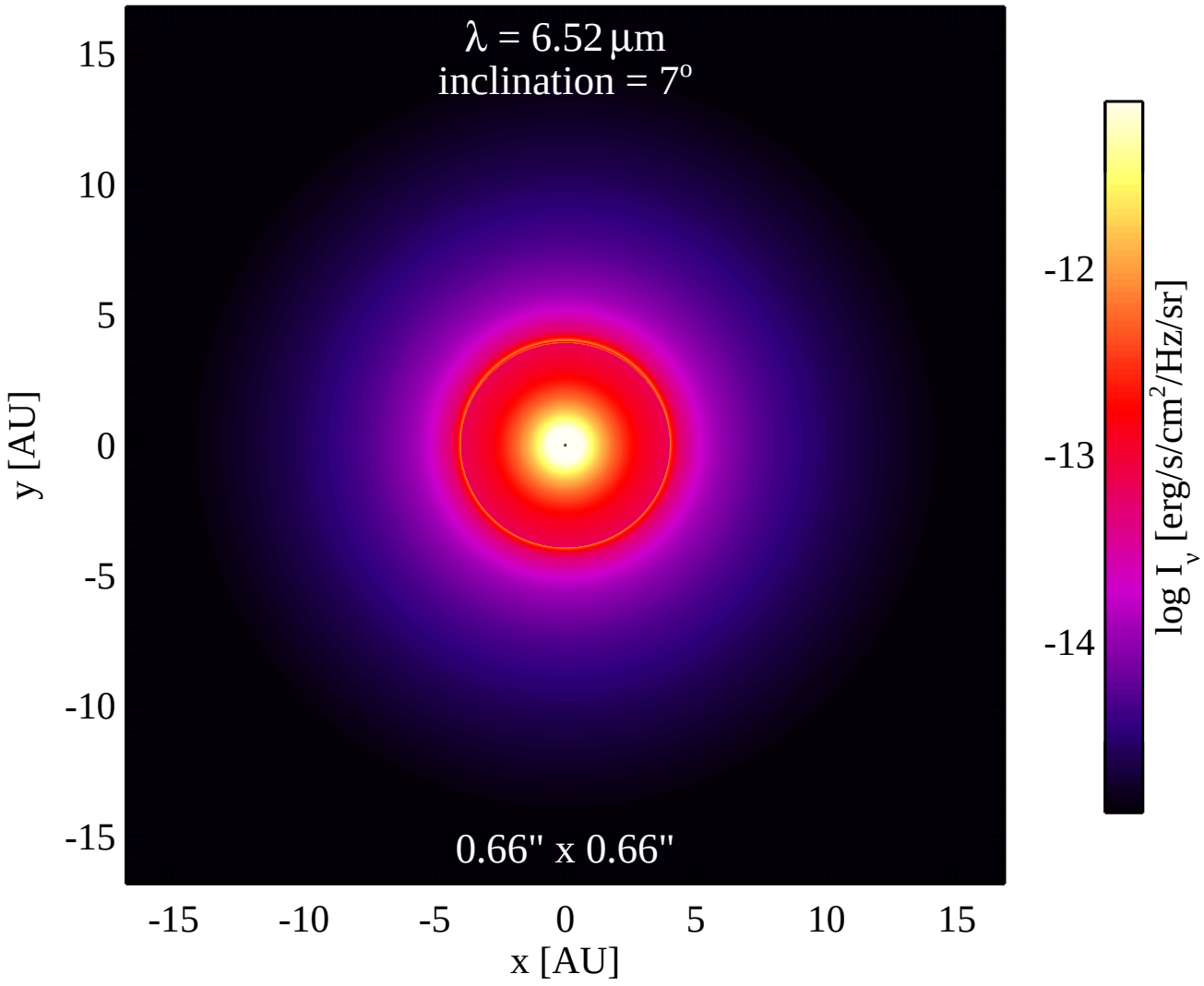

λ = 2.47 μm
inclination = 7°
2.62" x 2.62"
60
40
20
0
-20
-40
-60
y [AU]
-60
-40
-20
0
20
40
60
x [AU]
-12
-13
-14
-15
log I_ν [erg/s/cm²/Hz/sr]

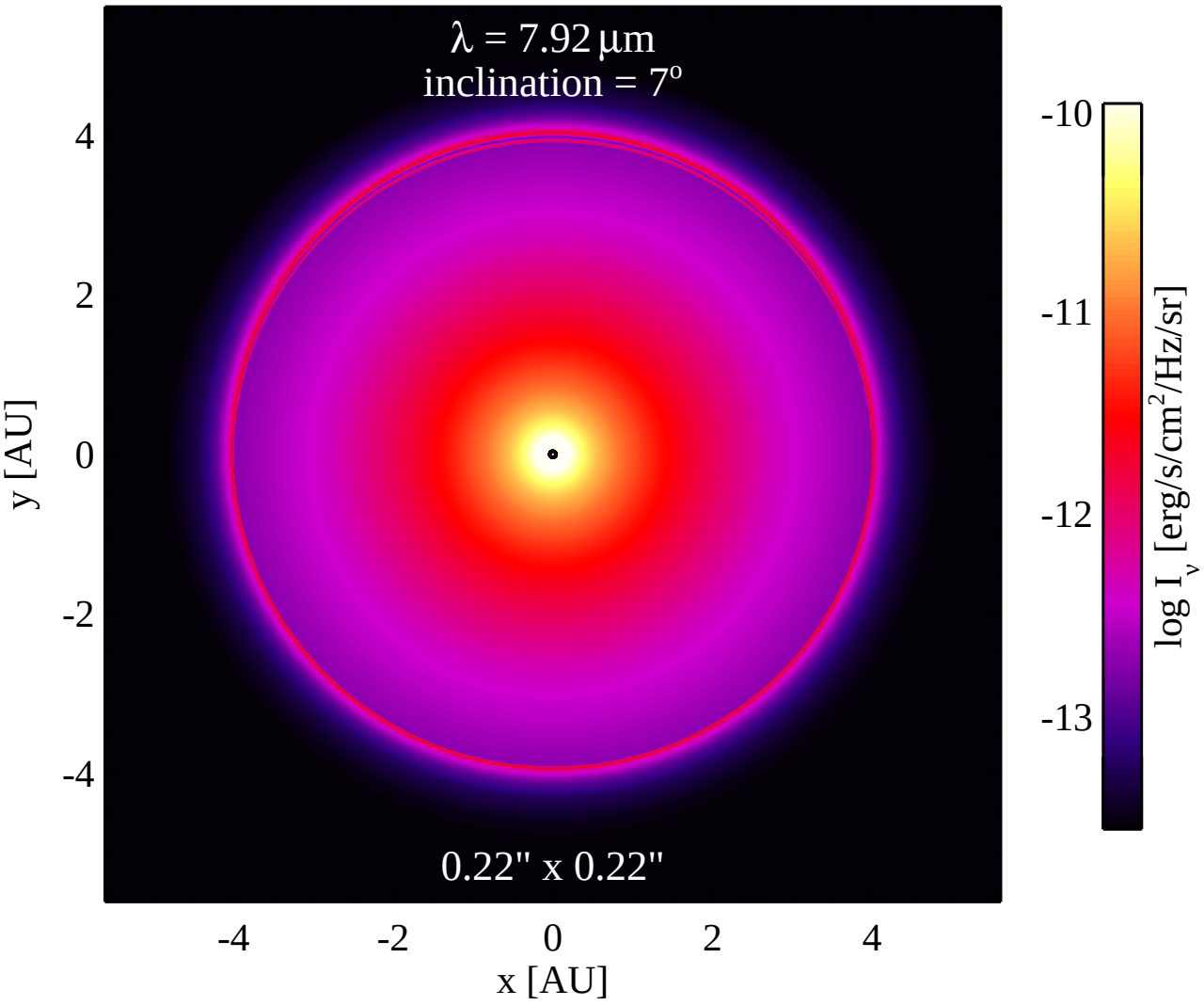

λ = 3.00 μm
inclination = 7°
2.36" x 2.36"
60
40
20
0
-20
-40
-60
y [AU]
-60
-40
-20
0
20
40
60
x [AU]
-12
-13
-14
-15
log I_ν [erg/s/cm²/Hz/sr]

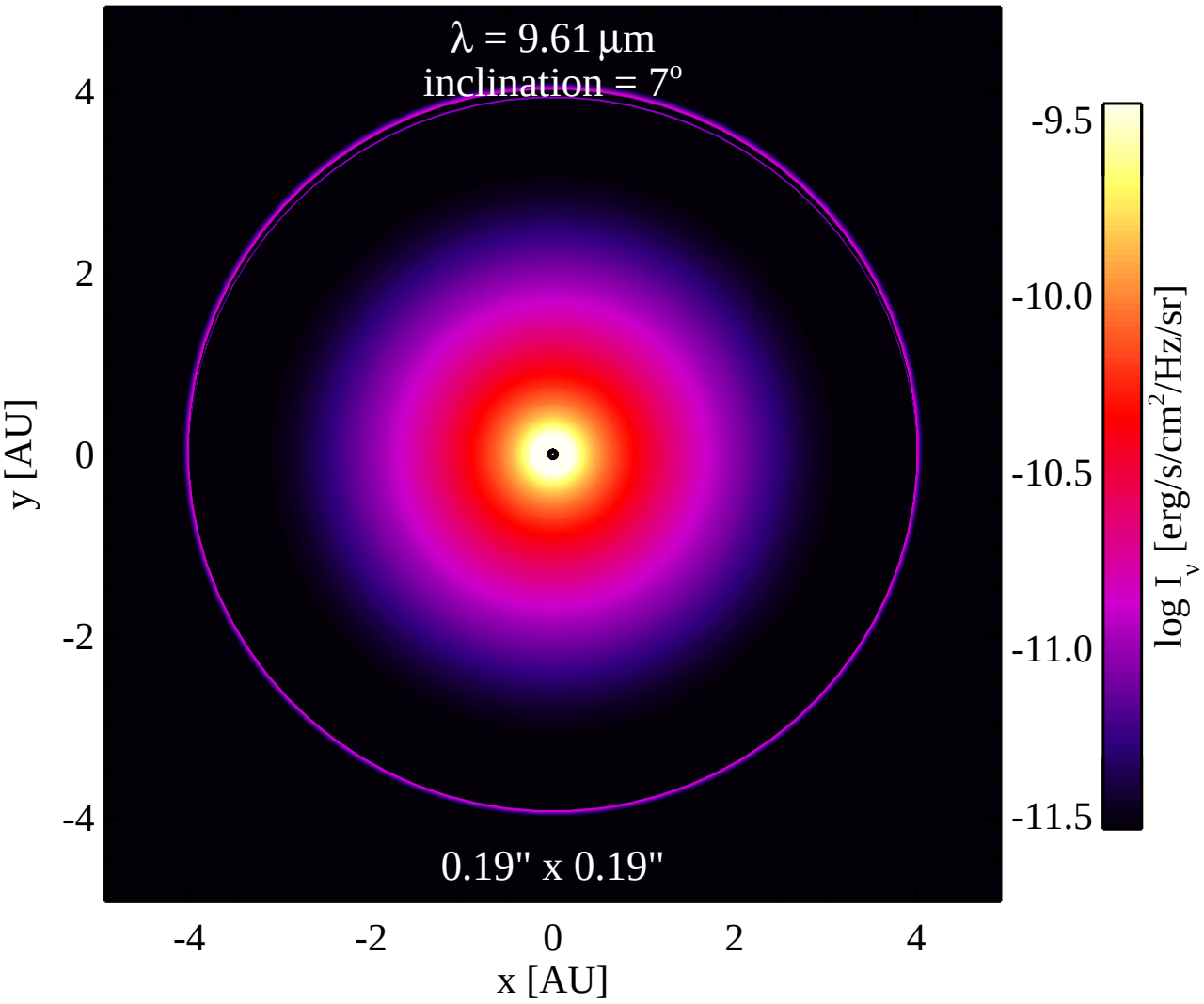

λ = 3.64 μm
inclination = 7°
2.03" x 2.03"
40
20
0
-20
-40
y [AU]
-40
-20
0
20
40
x [AU]
-12
-13
-14
-15
log I_ν [erg/s/cm²/Hz/sr]

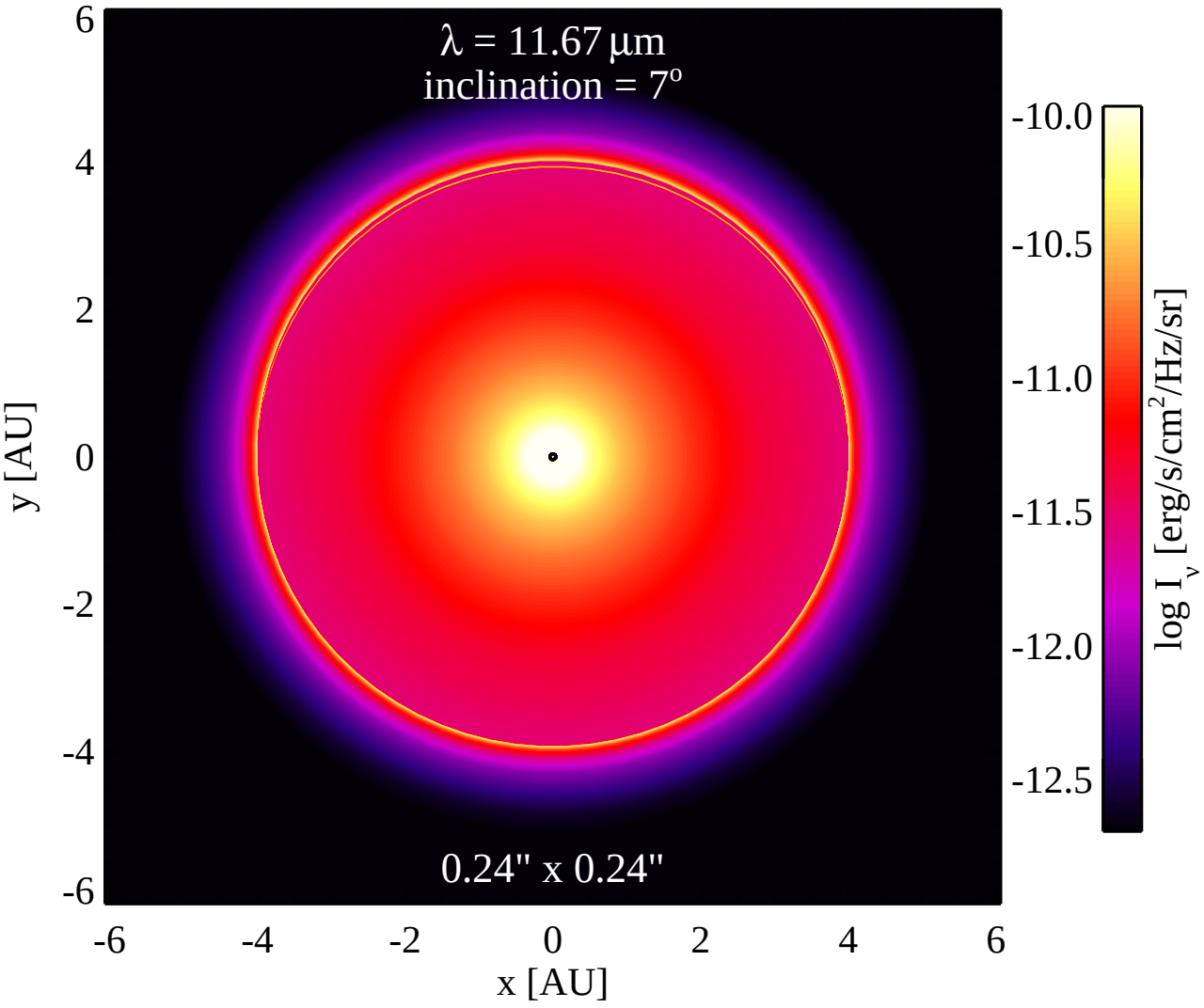

λ = 4.42 μm
inclination = 7°
1.56" x 1.56"
20
0
-20
y [AU]
-20
0
20
x [AU]
-12.5
-13.0
-13.5
-14.0
-14.5
-15.0
-15.5
log I_ν [erg/s/cm²/Hz/sr]

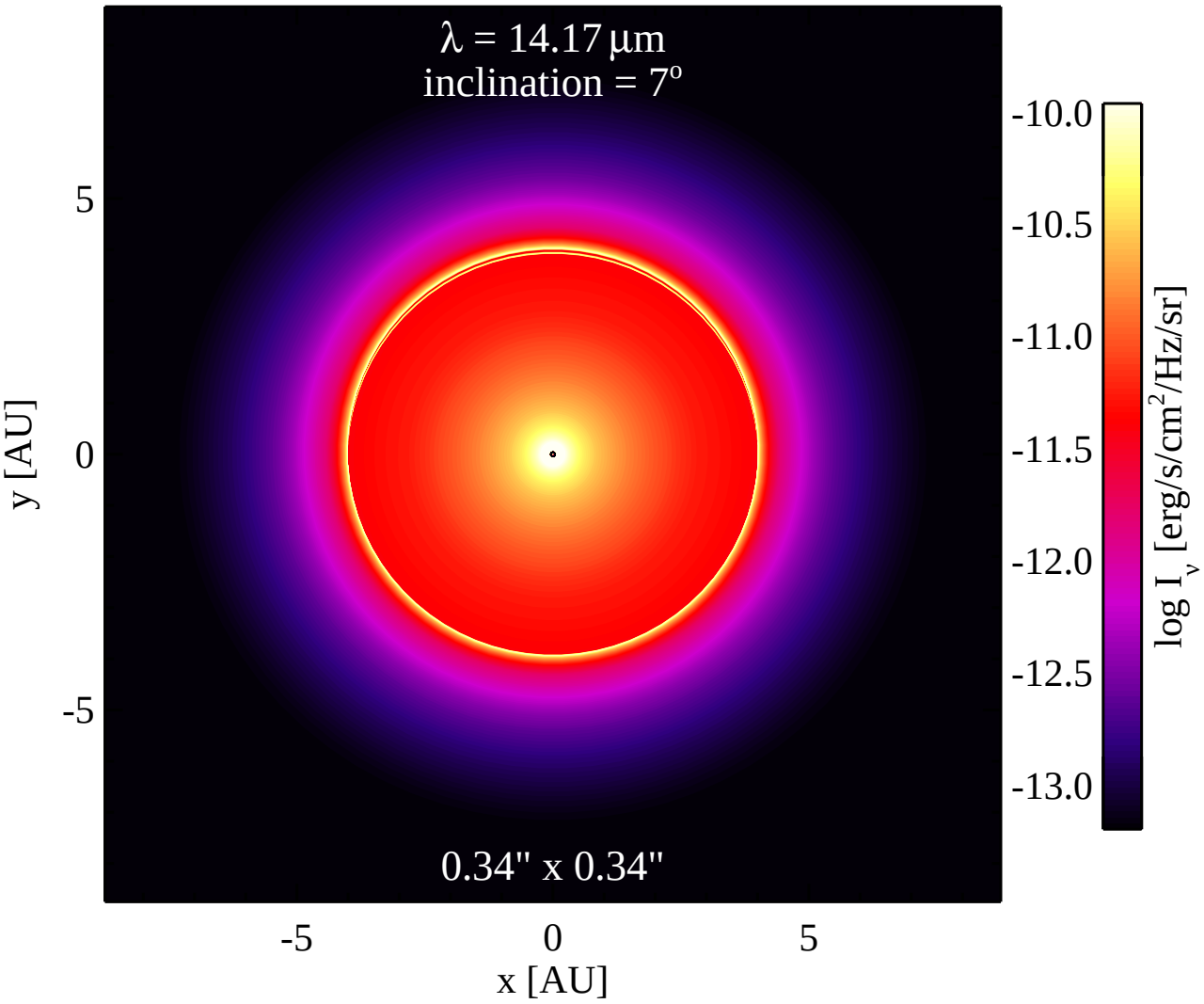

λ = 5.37 μm
inclination = 7°
1.12" x 1.12"
20
10
0
-10
-20
y [AU]
-20
-10
0
10
20
x [AU]
-12.5
-13.0
-13.5
-14.0
-14.5
-15.0
log I_ν [erg/s/cm²/Hz/sr]

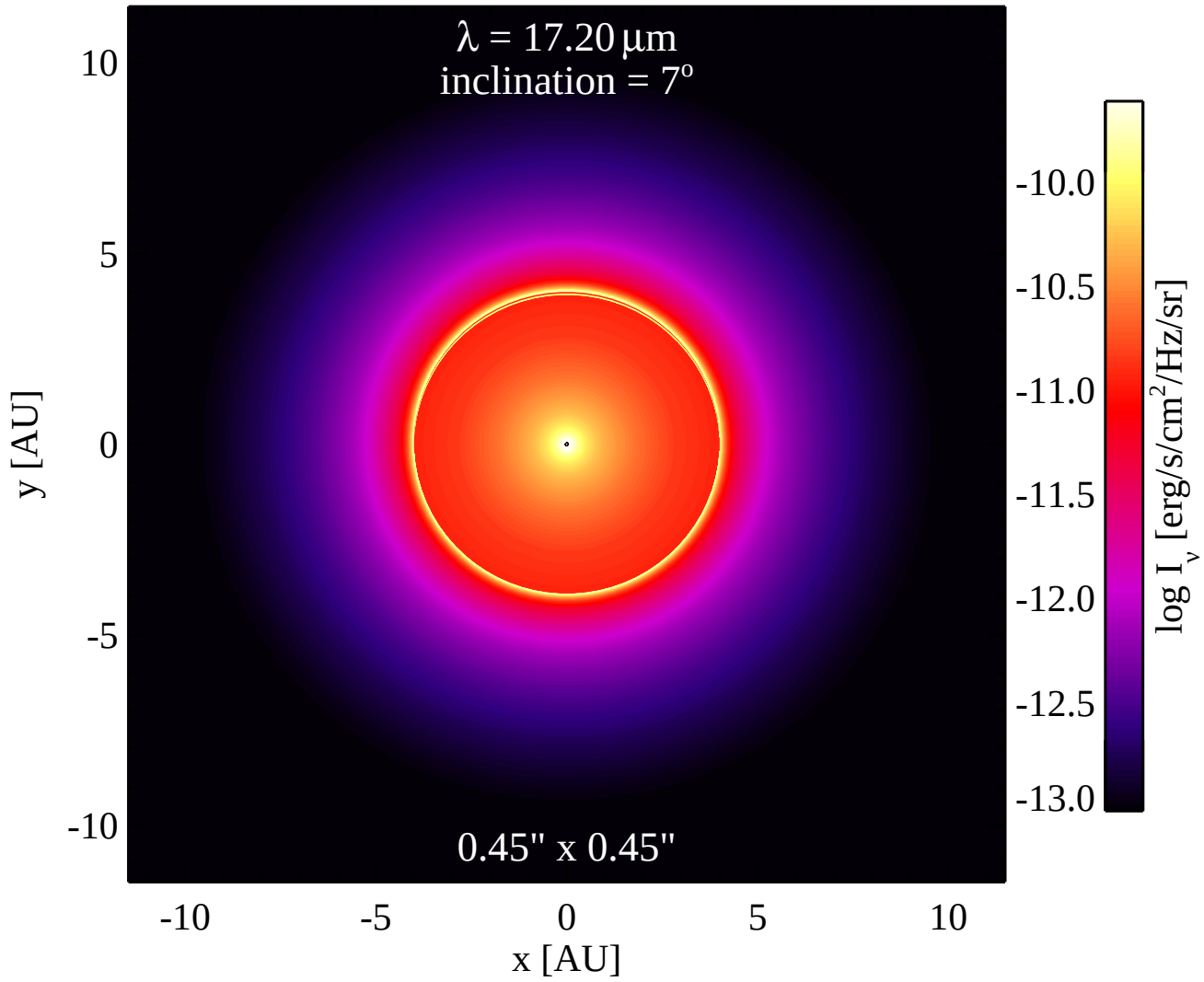

λ = 6.52 μm
inclination = 7°
0.66" x 0.66"
15
10
5
0
-5
-10
-15
y [AU]
-15
-10
-5
0
5
10
15
x [AU]
-12
-13
-14
log I_ν [erg/s/cm²/Hz/sr]

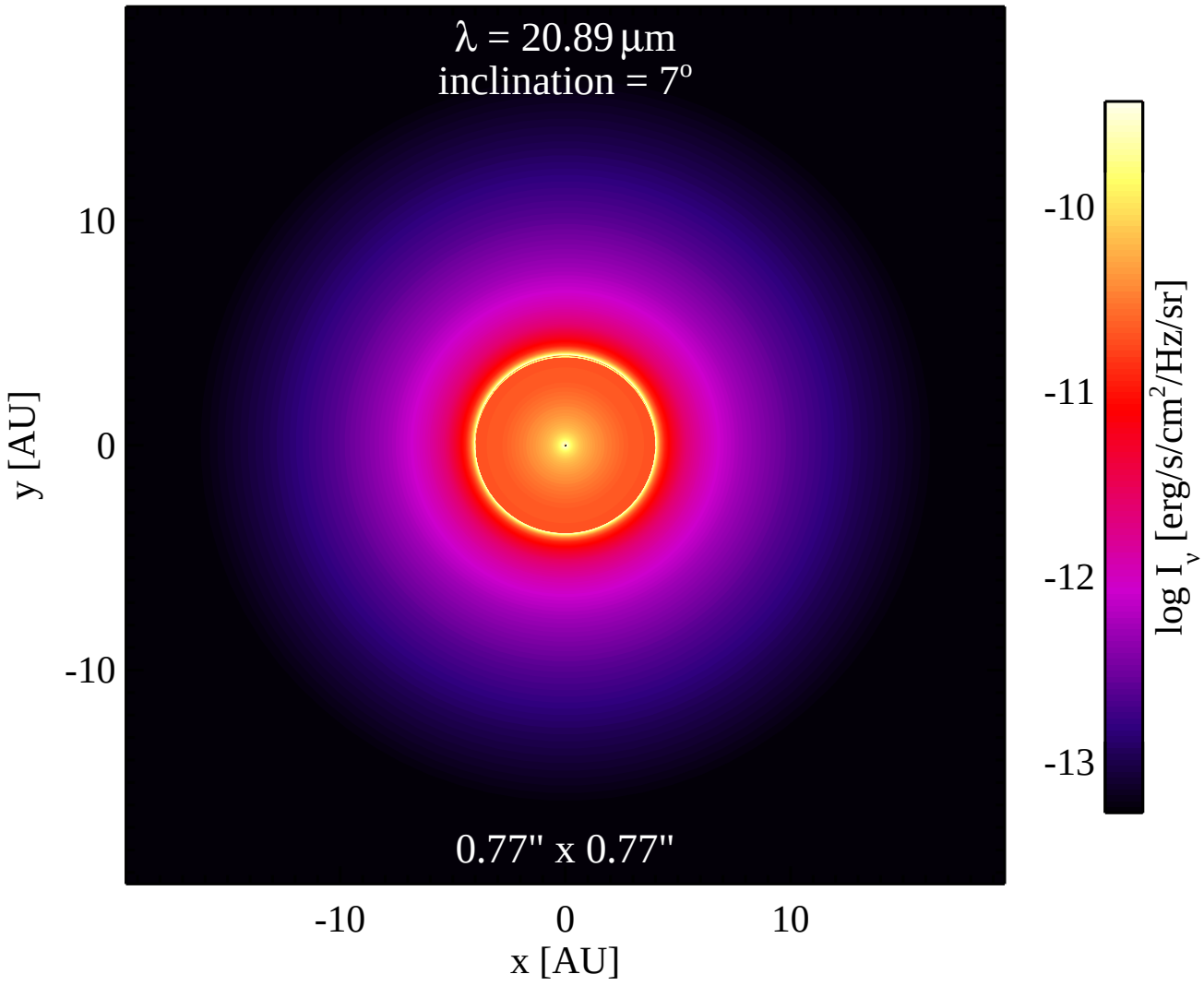

λ = 7.92 μm
inclination = 7°
0.22" x 0.22"
y [AU]
x [AU]
4
2
0
-2
-4
-4
-2
0
2
4
-10
-11
-12
-13
log I_ν [erg/s/cm²/Hz/sr]

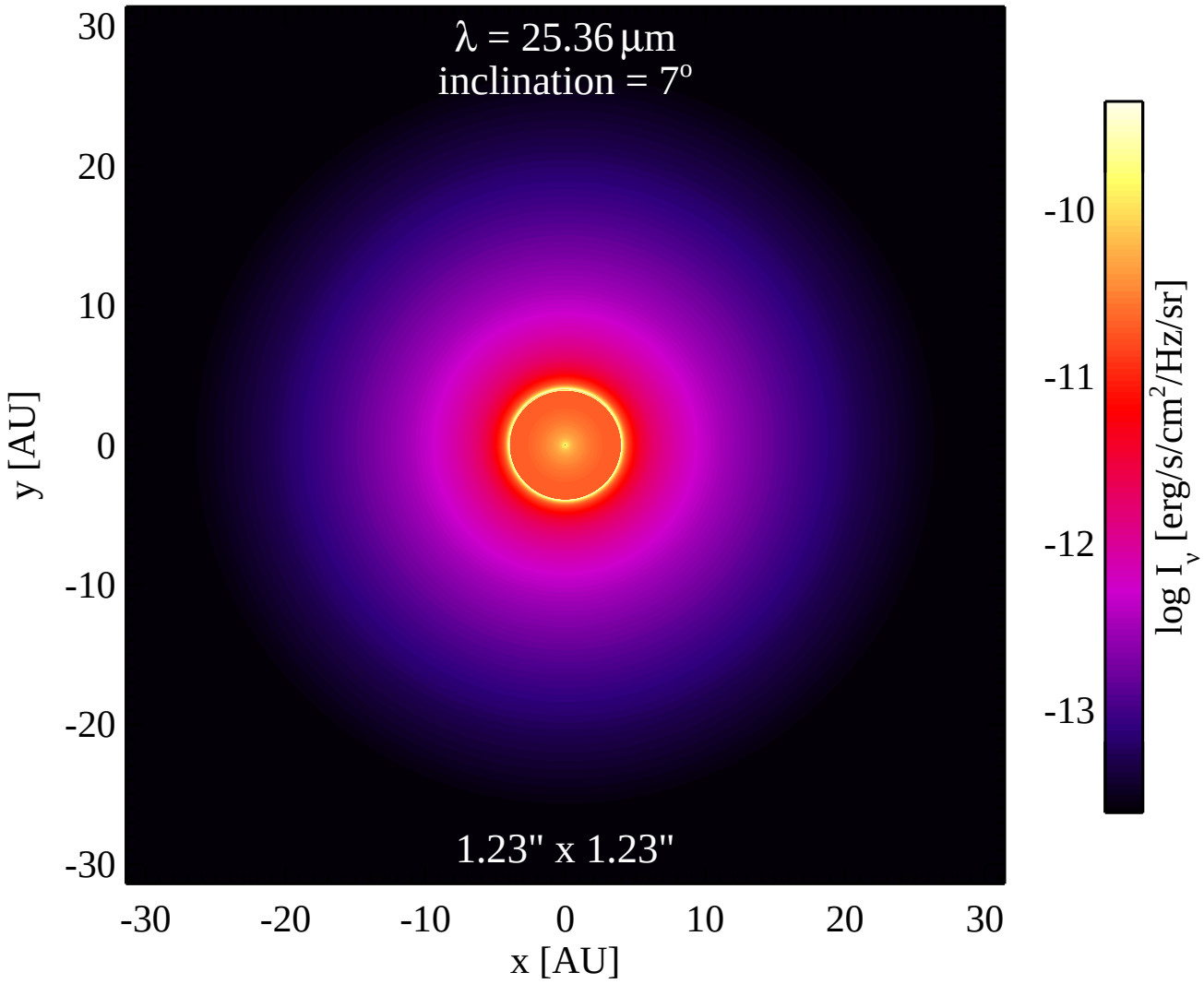

λ = 9.61 μm
inclination = 7°
0.19" x 0.19"
y [AU]
x [AU]
4
2
0
-2
-4
-4
-2
0
2
4
-9.5
-10.0
-10.5
-11.0
-11.5
log I_ν [erg/s/cm²/Hz/sr]

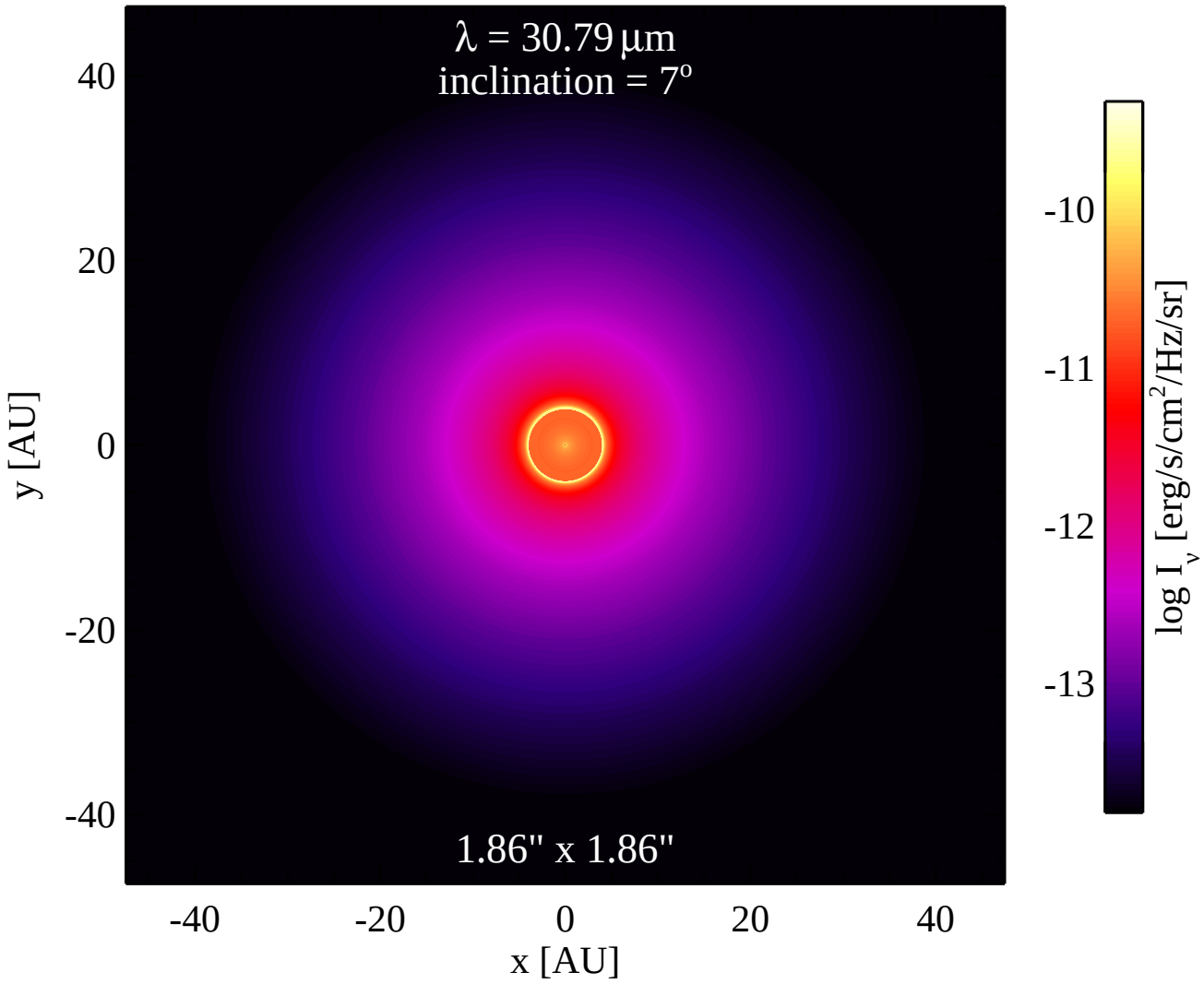

λ = 11.67 μm
inclination = 7°
0.24" x 0.24"
y [AU]
x [AU]
6
4
2
0
-2
-4
-6
-6
-4
-2
0
2
4
6
-10.0
-10.5
-11.0
-11.5
-12.0
-12.5
log I_ν [erg/s/cm²/Hz/sr]

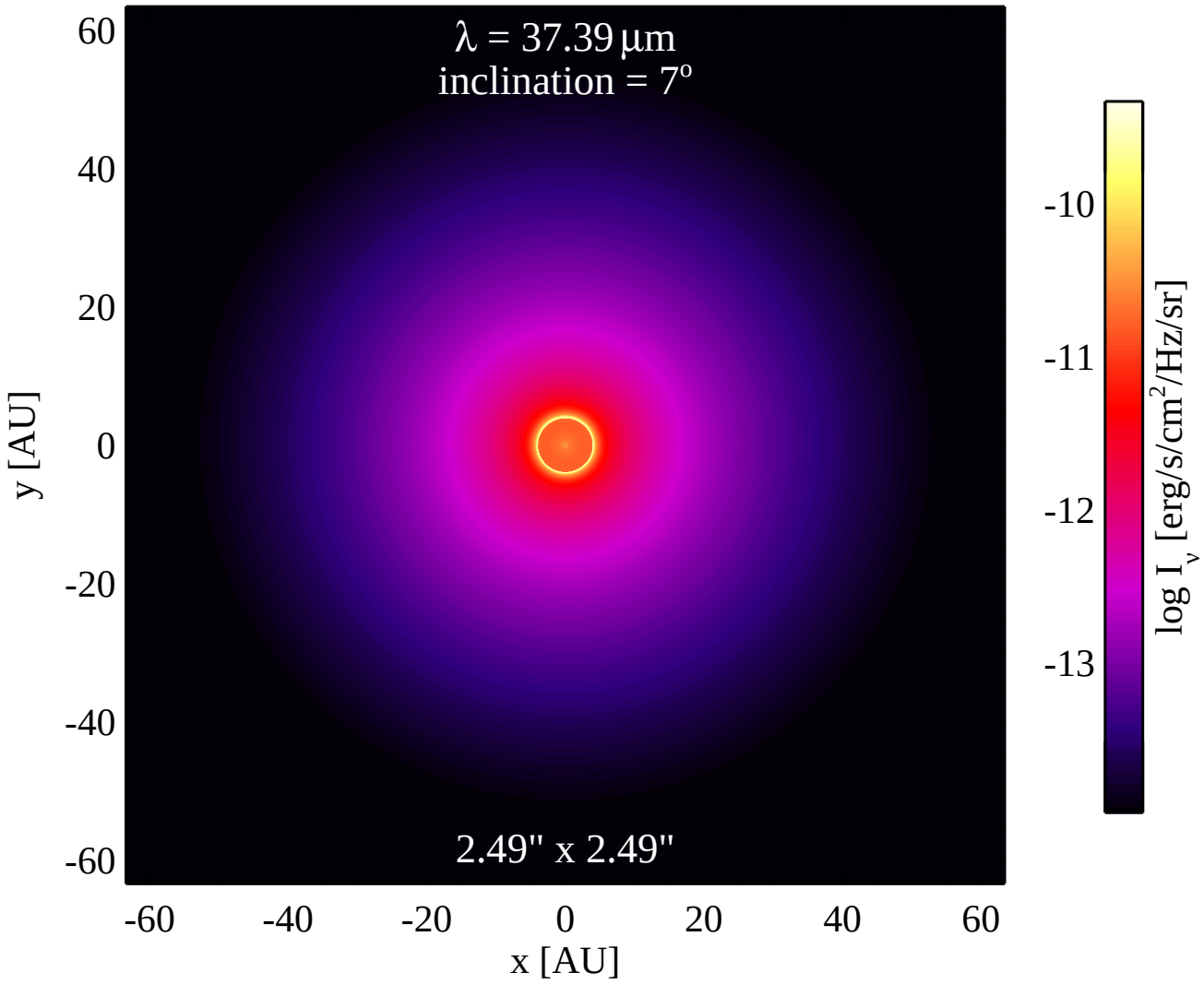

λ = 14.17 μm
inclination = 7°
0.34" x 0.34"
5
0
-5
y [AU]
-5
0
5
x [AU]
-10.0
-10.5
-11.0
-11.5
-12.0
-12.5
-13.0
log I_ν [erg/s/cm²/Hz/sr]

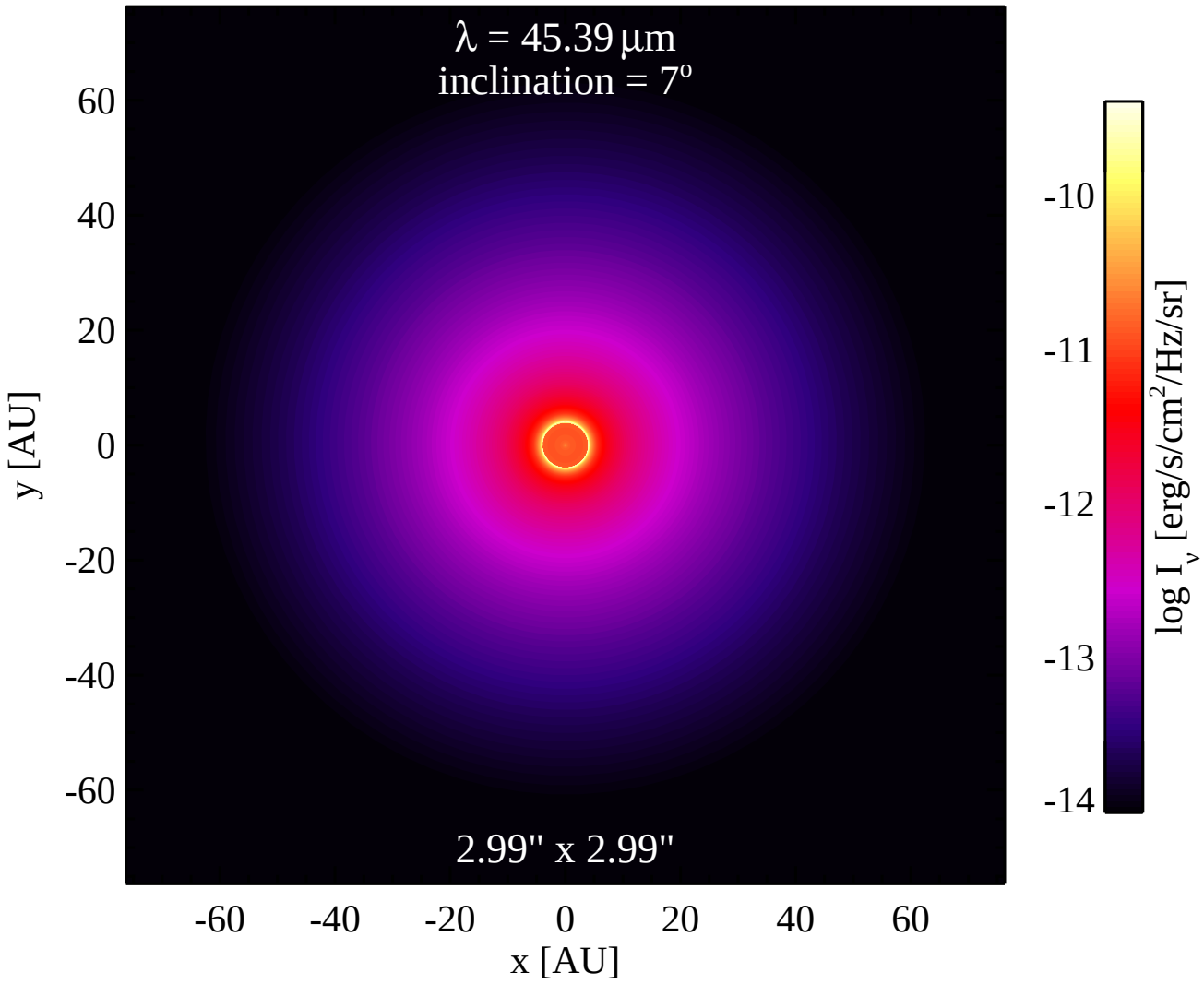

λ = 17.20 μm
inclination = 7°
0.45" x 0.45"
10
5
0
-5
-10
y [AU]
-10
-5
0
5
10
x [AU]
-10.0
-10.5
-11.0
-11.5
-12.0
-12.5
-13.0
log I_ν [erg/s/cm²/Hz/sr]

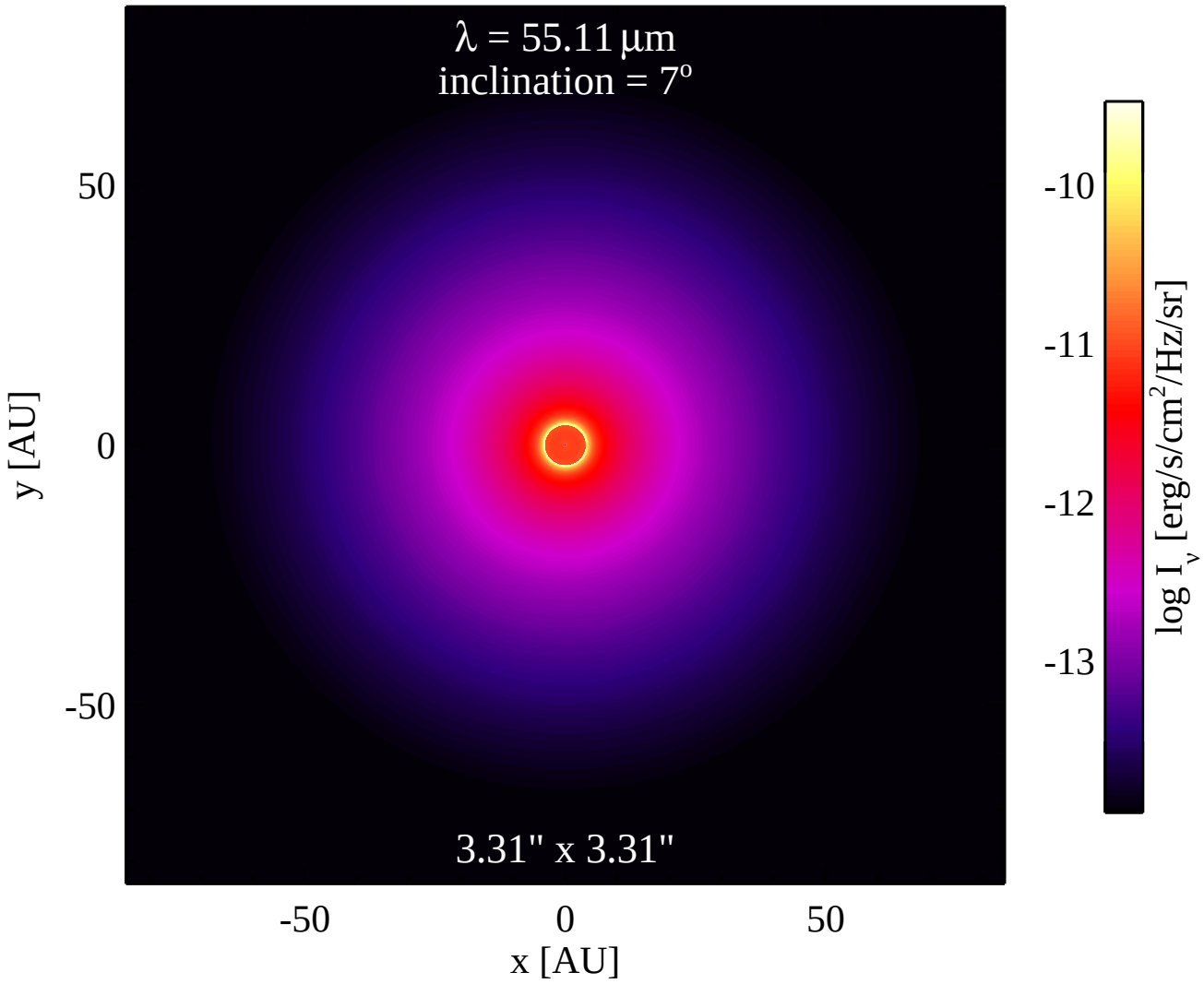

λ = 20.89 μm
inclination = 7°
0.77" x 0.77"
10
0
-10
y [AU]
-10
0
10
x [AU]
-10
-11
-12
-13
log I_ν [erg/s/cm²/Hz/sr]

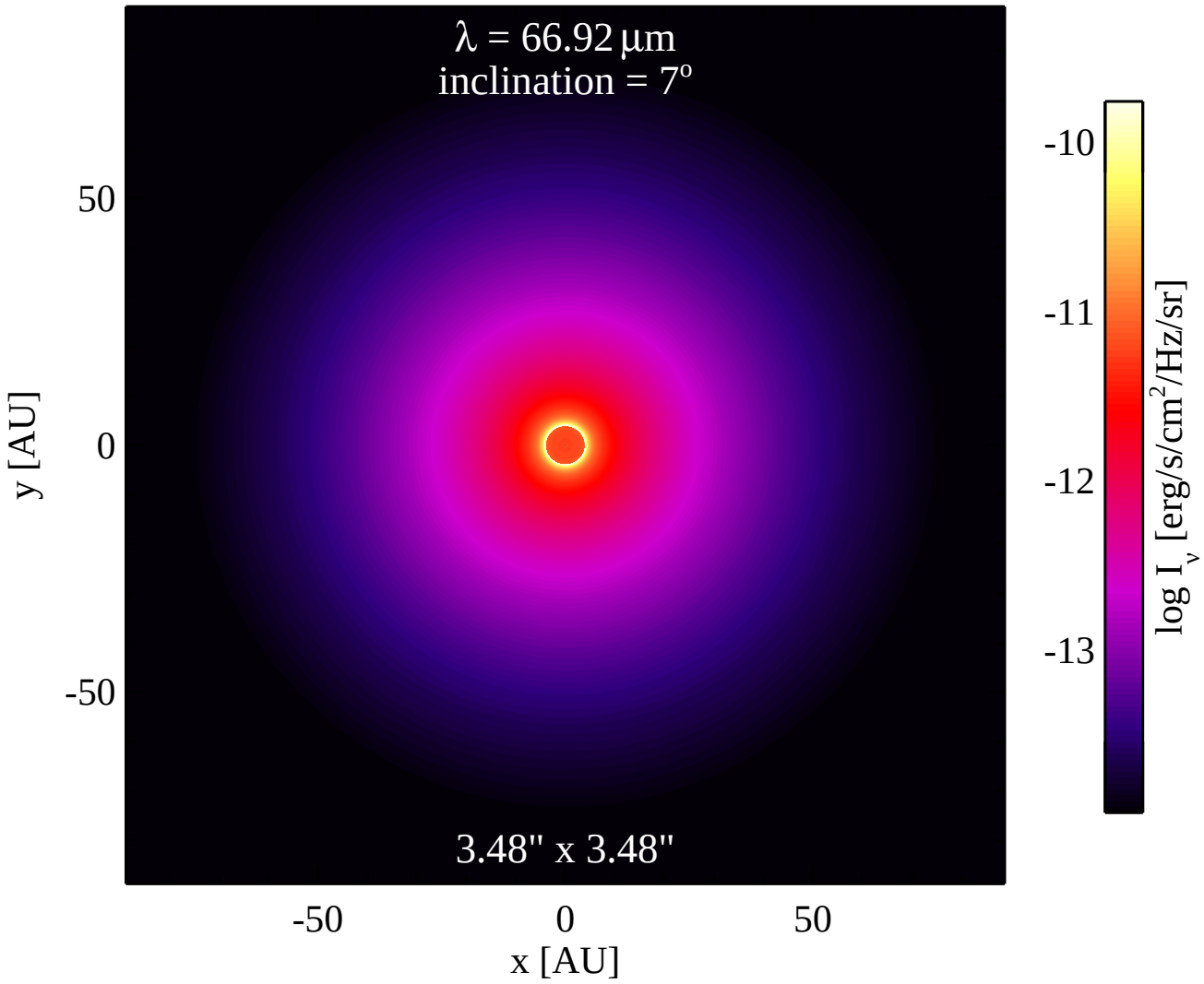

λ = 25.36 μm
inclination = 7°
1.23" x 1.23"
30
20
10
0
-10
-20
-30
y [AU]
-30
-20
-10
0
10
20
30
x [AU]
-10
-11
-12
-13
log I_ν [erg/s/cm²/Hz/sr]

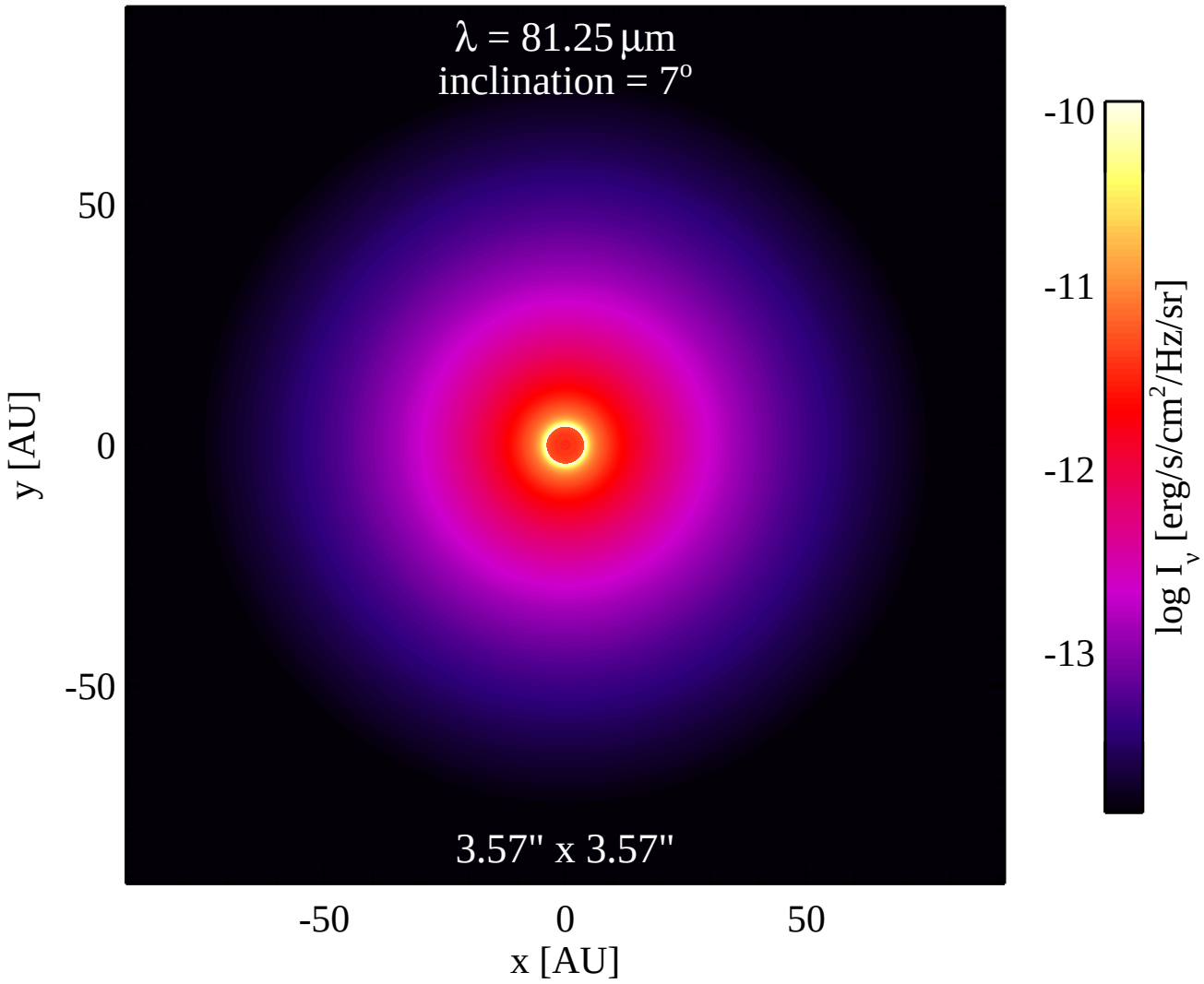

λ = 30.79 μm
inclination = 7°
1.86" x 1.86"
40
20
0
-20
-40
y [AU]
-40
-20
0
20
40
x [AU]
-10
-11
-12
-13
log I_ν [erg/s/cm²/Hz/sr]

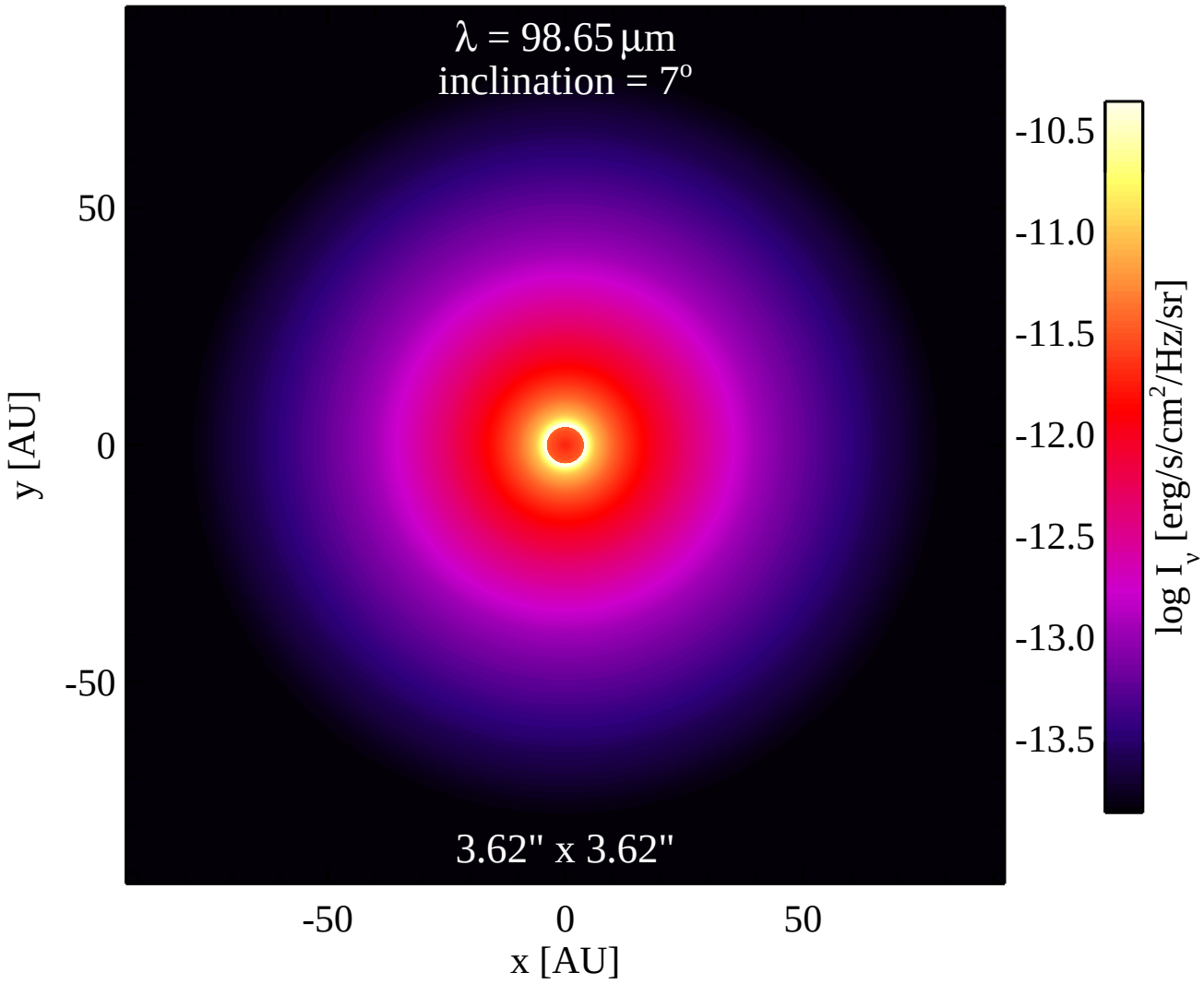

λ = 37.39 μm
inclination = 7°
2.49" x 2.49"
60
40
20
0
-20
-40
-60
y [AU]
-60
-40
-20
0
20
40
60
x [AU]
-10
-11
-12
-13
log I_ν [erg/s/cm²/Hz/sr]

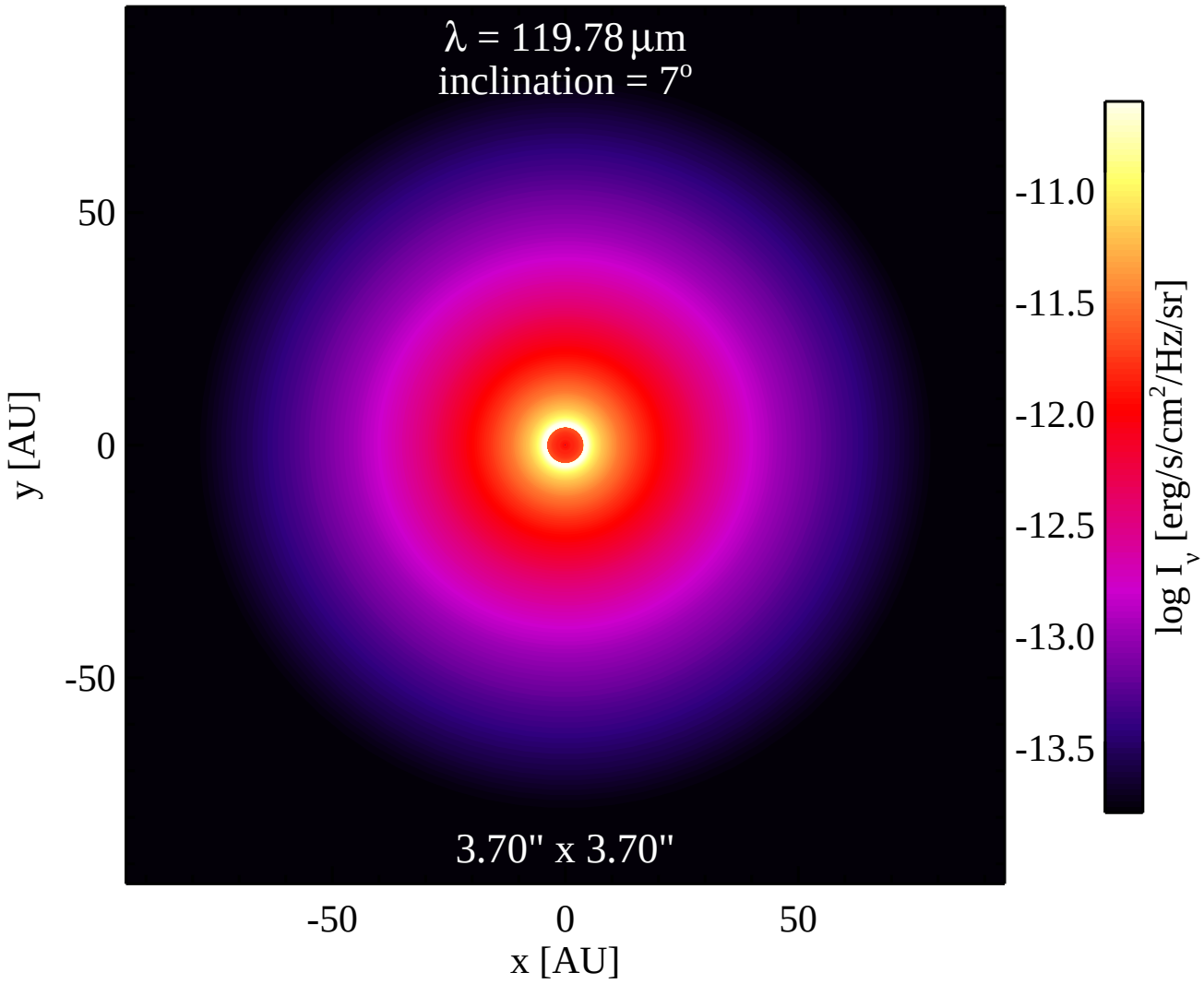

λ = 45.39 μm
inclination = 7°
2.99" x 2.99"
60
40
20
0
-20
-40
-60
y [AU]
-60
-40
-20
0
20
40
60
x [AU]
-10
-11
-12
-13
-14
log I_ν [erg/s/cm²/Hz/sr]

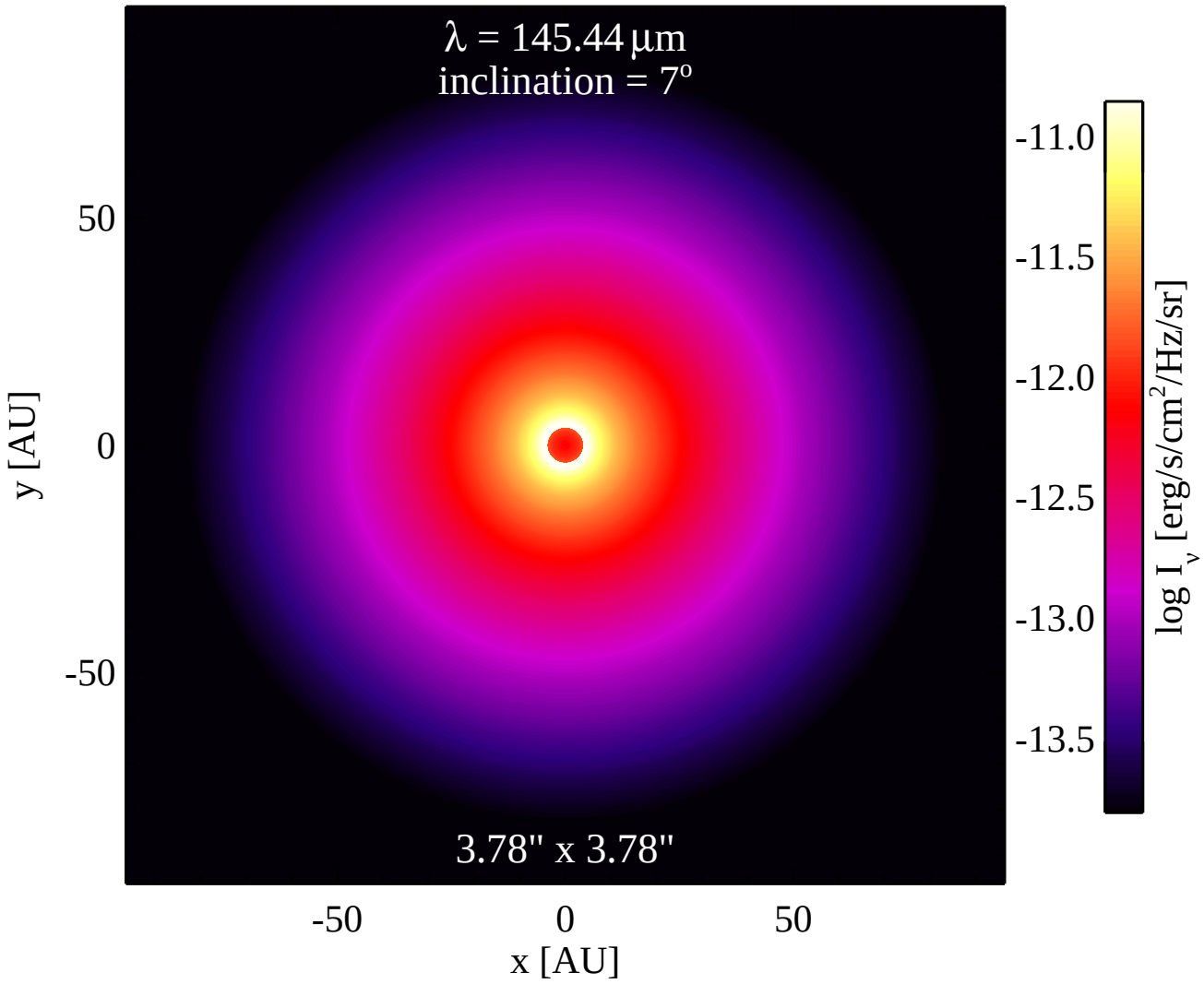

λ = 55.11 μm
inclination = 7°
3.31" x 3.31"
50
0
-50
y [AU]
-50
0
50
x [AU]
-10
-11
-12
-13
log I_ν [erg/s/cm²/Hz/sr]

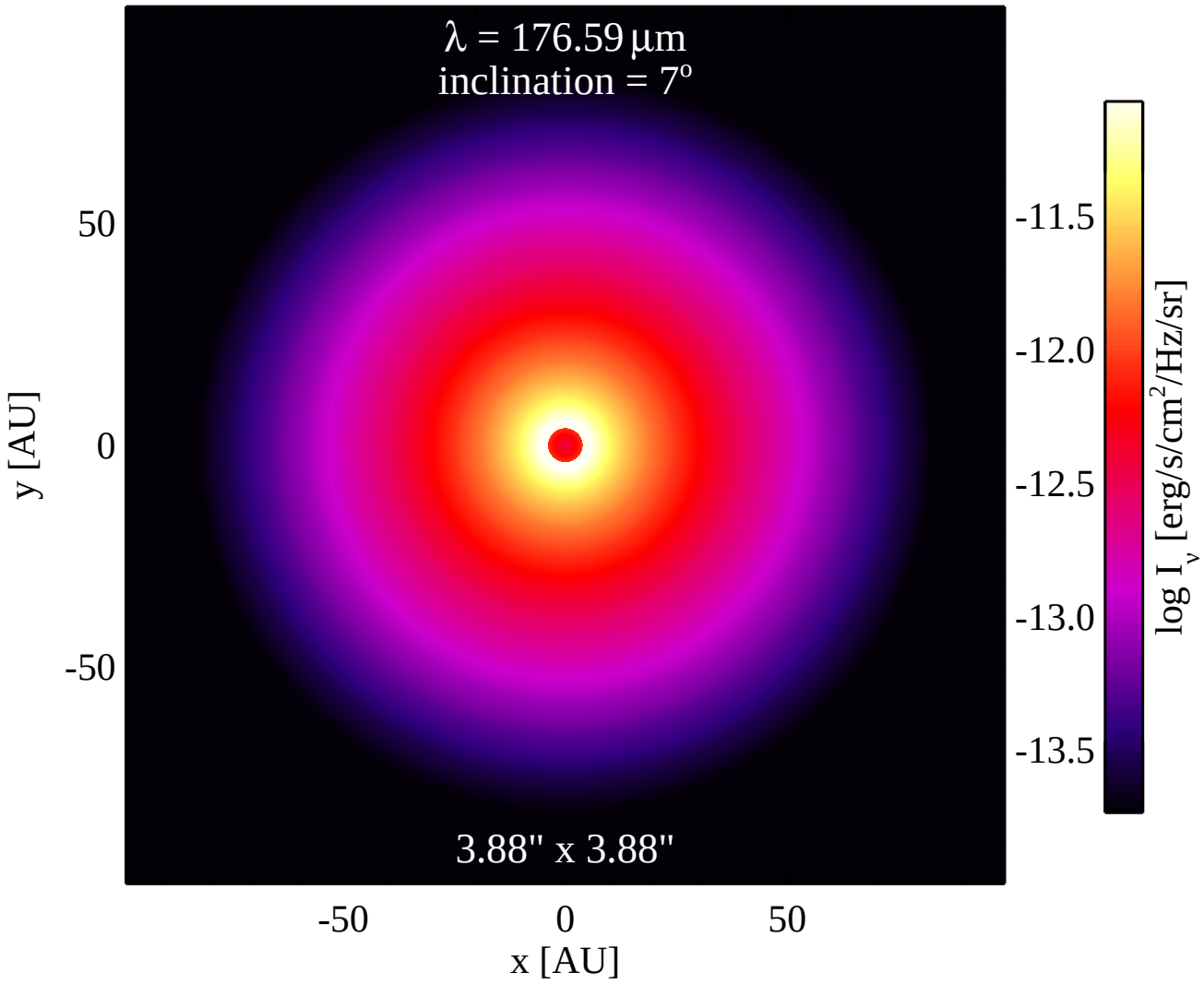

λ = 66.92 μm
inclination = 7°
3.48" x 3.48"
50
0
-50
y [AU]
-50
0
50
x [AU]
-10
-11
-12
-13
log I_ν [erg/s/cm²/Hz/sr]

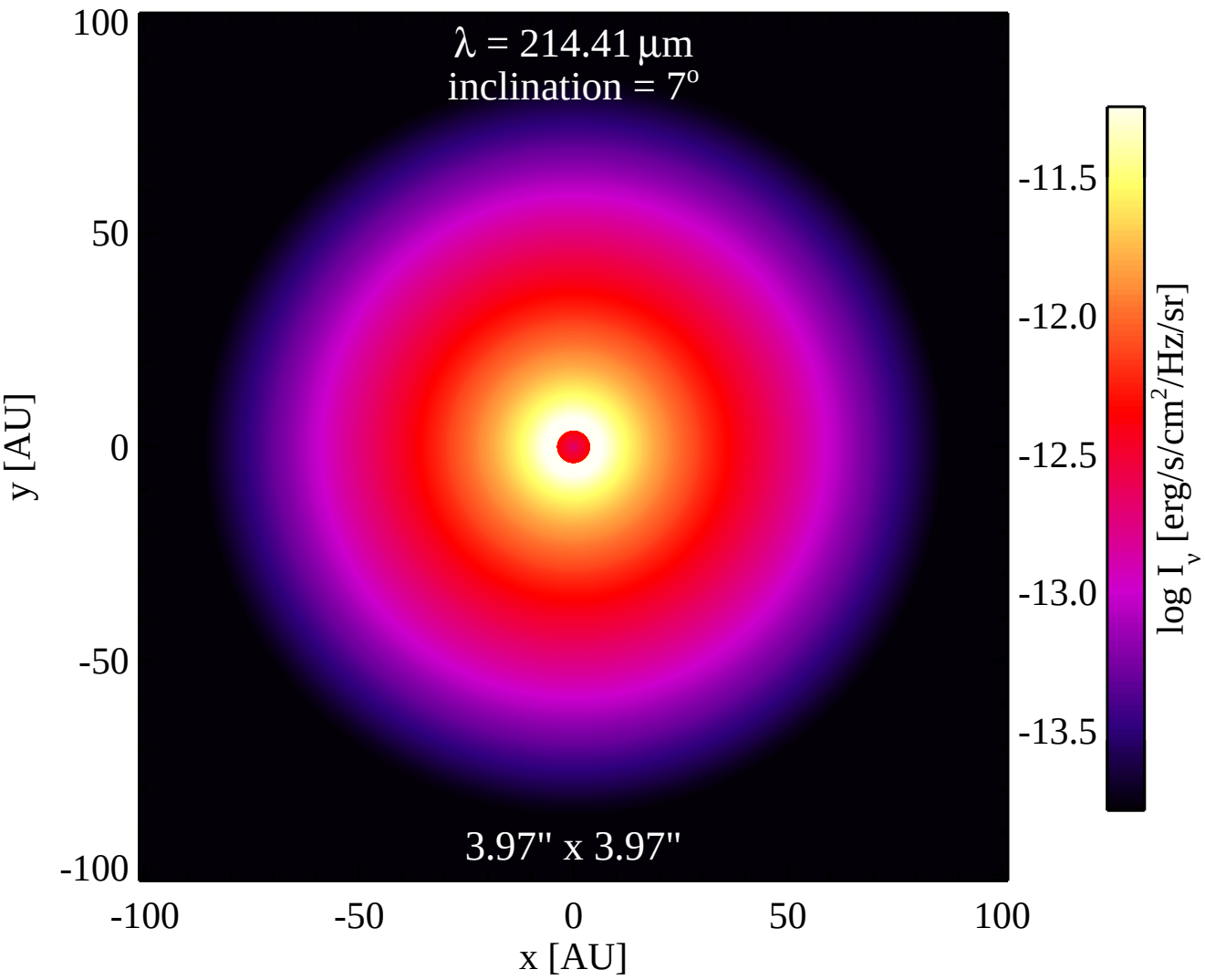

λ = 81.25 μm
inclination = 7°
3.57" x 3.57"
50
0
-50
y [AU]
-50
0
50
x [AU]
-10
-11
-12
-13
log I_ν [erg/s/cm²/Hz/sr]

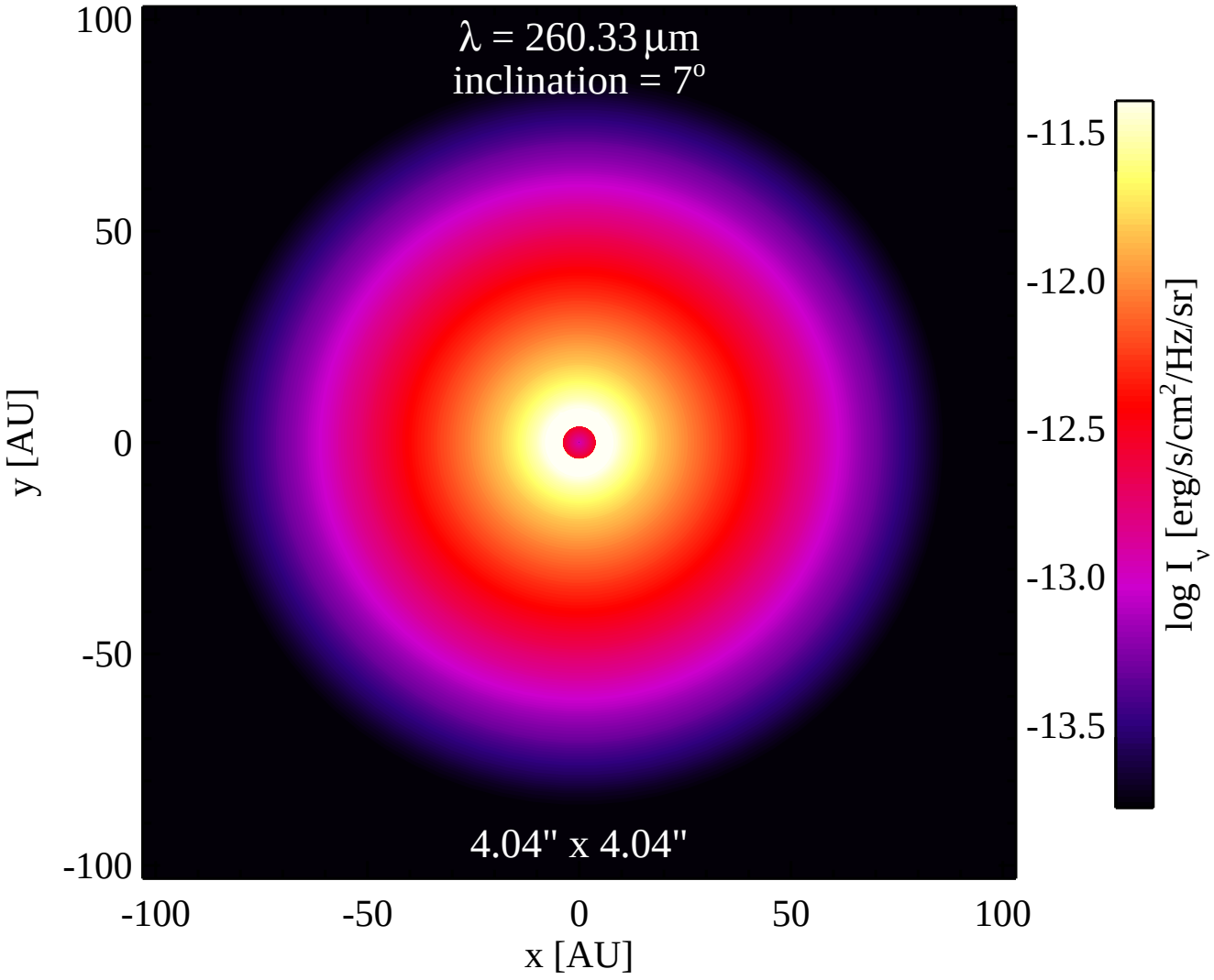

λ = 98.65 μm
inclination = 7°
3.62" x 3.62"
50
0
-50
y [AU]
-50
0
50
x [AU]
-10.5
-11.0
-11.5
-12.0
-12.5
-13.0
-13.5
log I_ν [erg/s/cm²/Hz/sr]

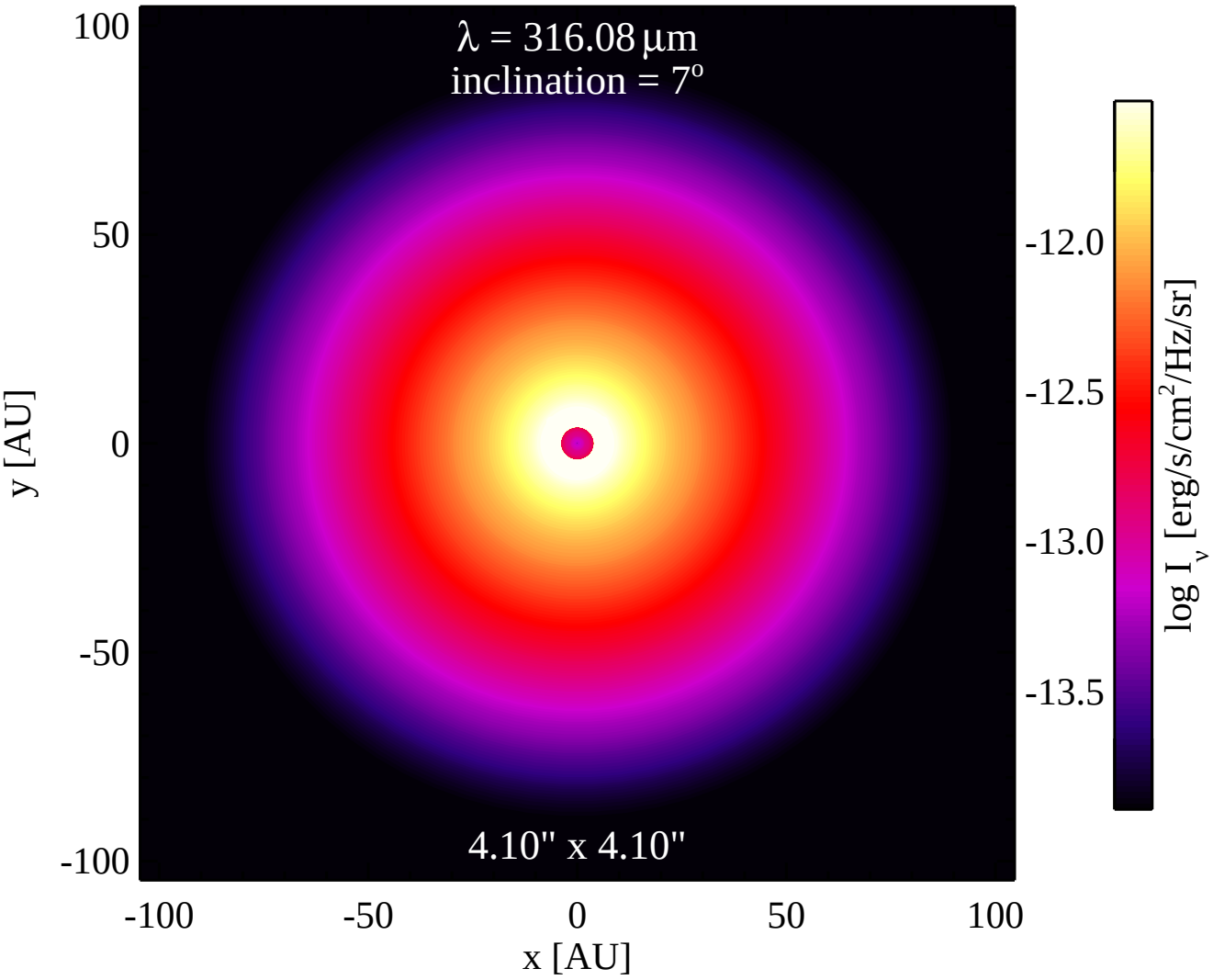

λ = 119.78 μm
inclination = 7°
3.70" x 3.70"
50
0
-50
y [AU]
-50
0
50
x [AU]
-11.0
-11.5
-12.0
-12.5
-13.0
-13.5
log I_ν [erg/s/cm²/Hz/sr]

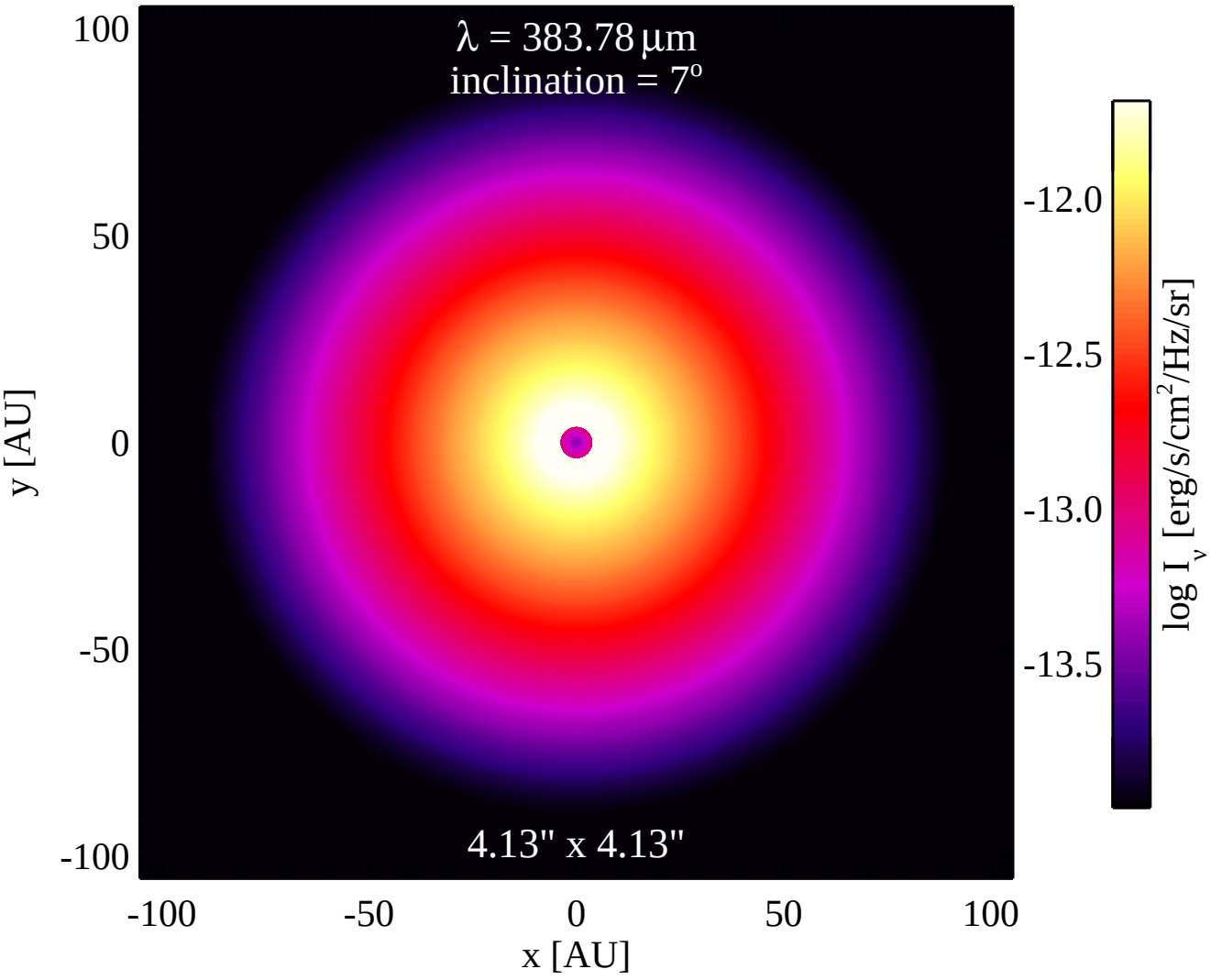

λ = 145.44 μm
inclination = 7°
3.78" x 3.78"
50
0
-50
y [AU]
-50
0
50
x [AU]
-11.0
-11.5
-12.0
-12.5
-13.0
-13.5
log I_ν [erg/s/cm²/Hz/sr]

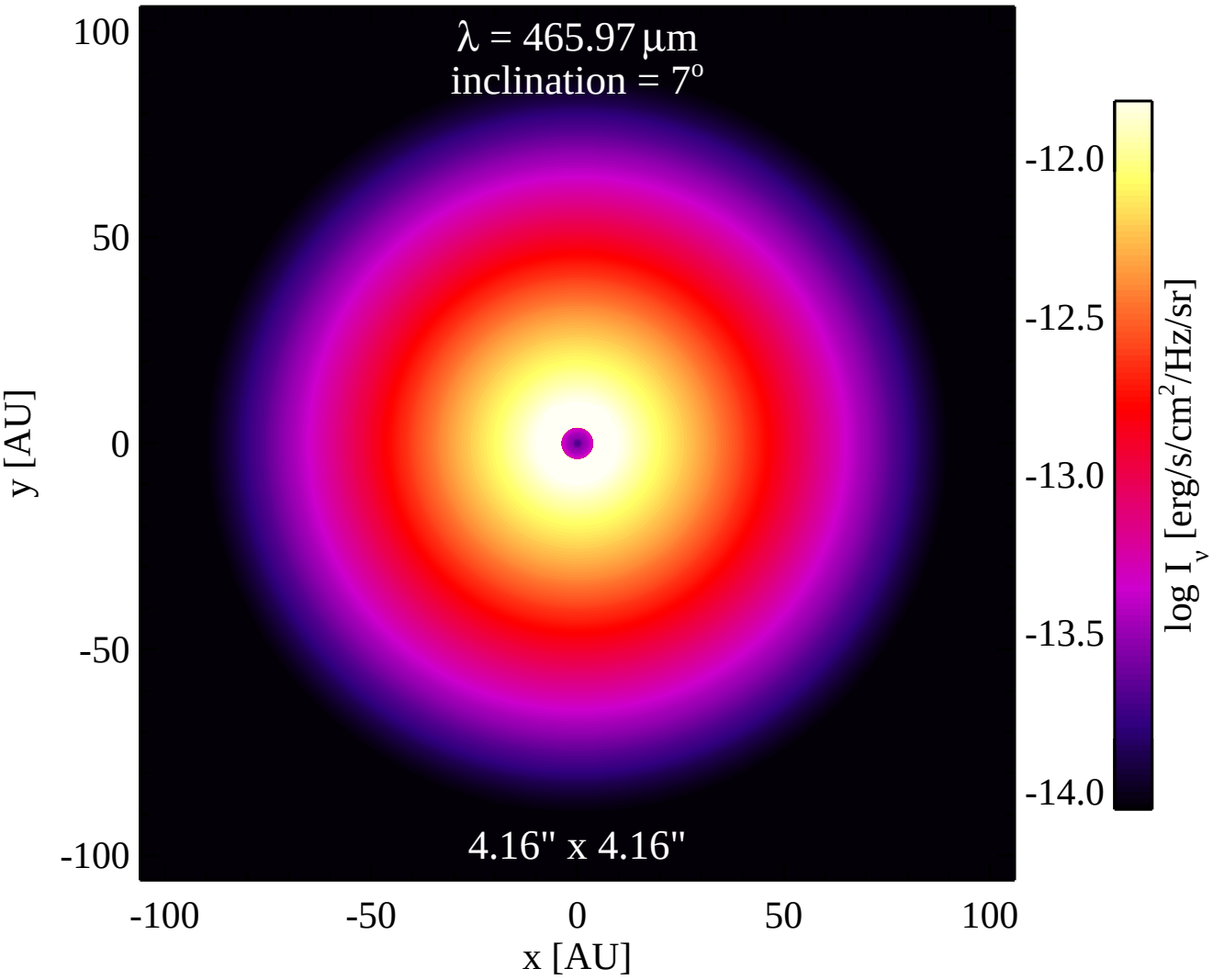

λ = 176.59 μm
inclination = 7°
3.88" x 3.88"
50
0
-50
y [AU]
-50
0
50
x [AU]
-11.5
-12.0
-12.5
-13.0
-13.5
log I_ν [erg/s/cm²/Hz/sr]

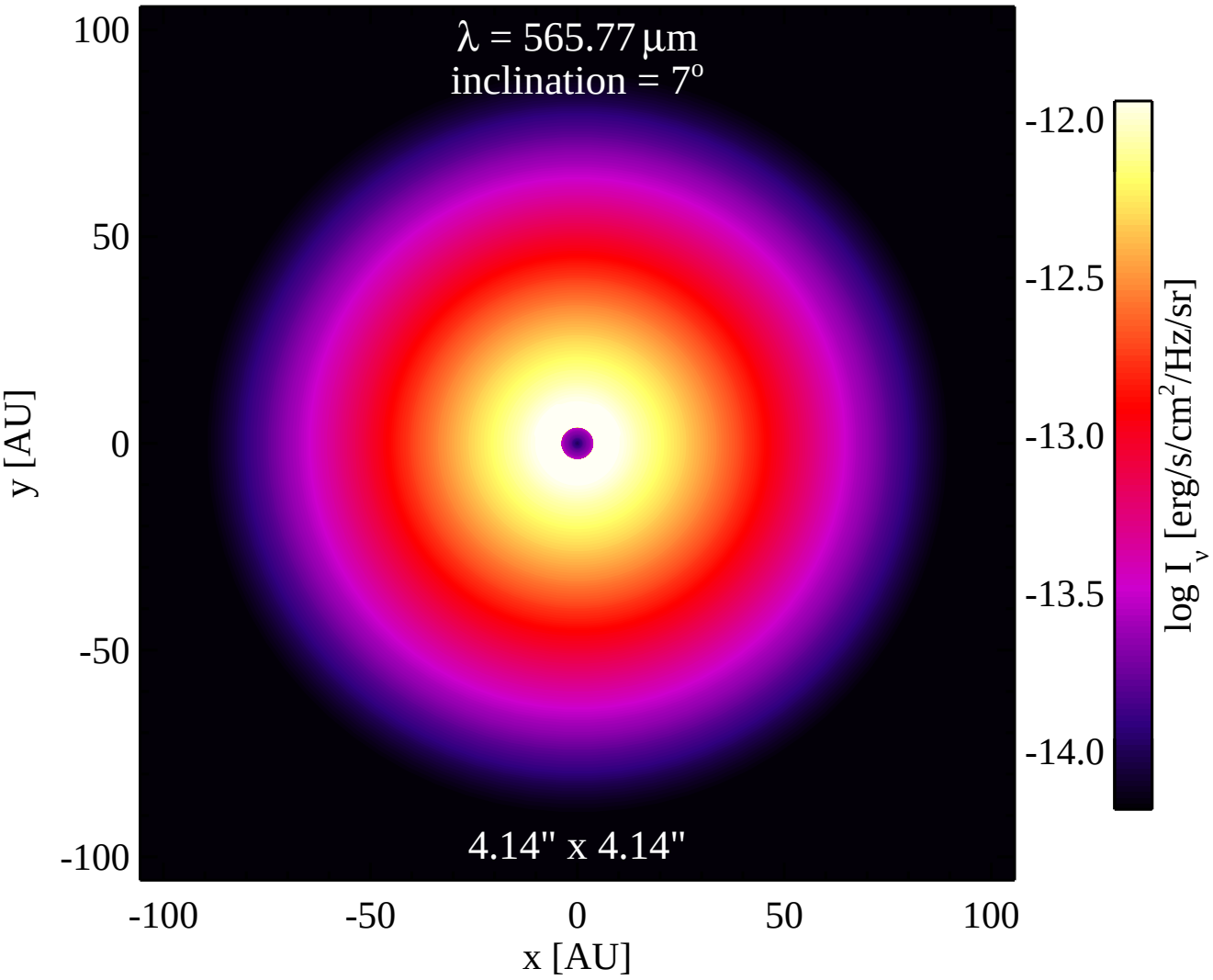

λ = 214.41 μm
inclination = 7°
3.97" x 3.97"
100
50
0
-50
-100
y [AU]
-100
-50
0
50
100
x [AU]
-11.5
-12.0
-12.5
-13.0
-13.5
log I_ν [erg/s/cm²/Hz/sr]

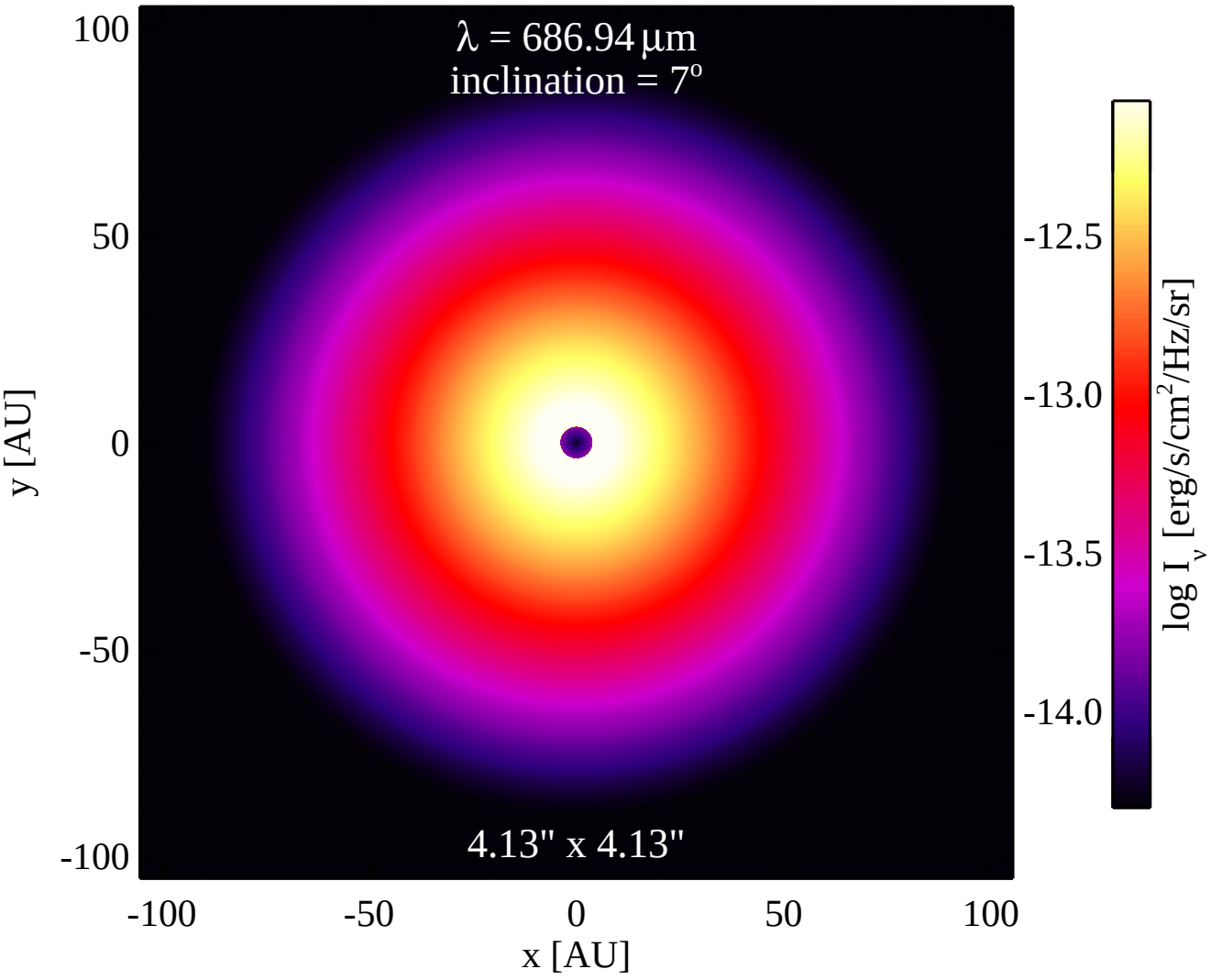

λ = 260.33 μm
inclination = 7°
4.04" x 4.04"
100
50
0
-50
-100
y [AU]
-100
-50
0
50
100
x [AU]
-11.5
-12.0
-12.5
-13.0
-13.5
log I_ν [erg/s/cm²/Hz/sr]

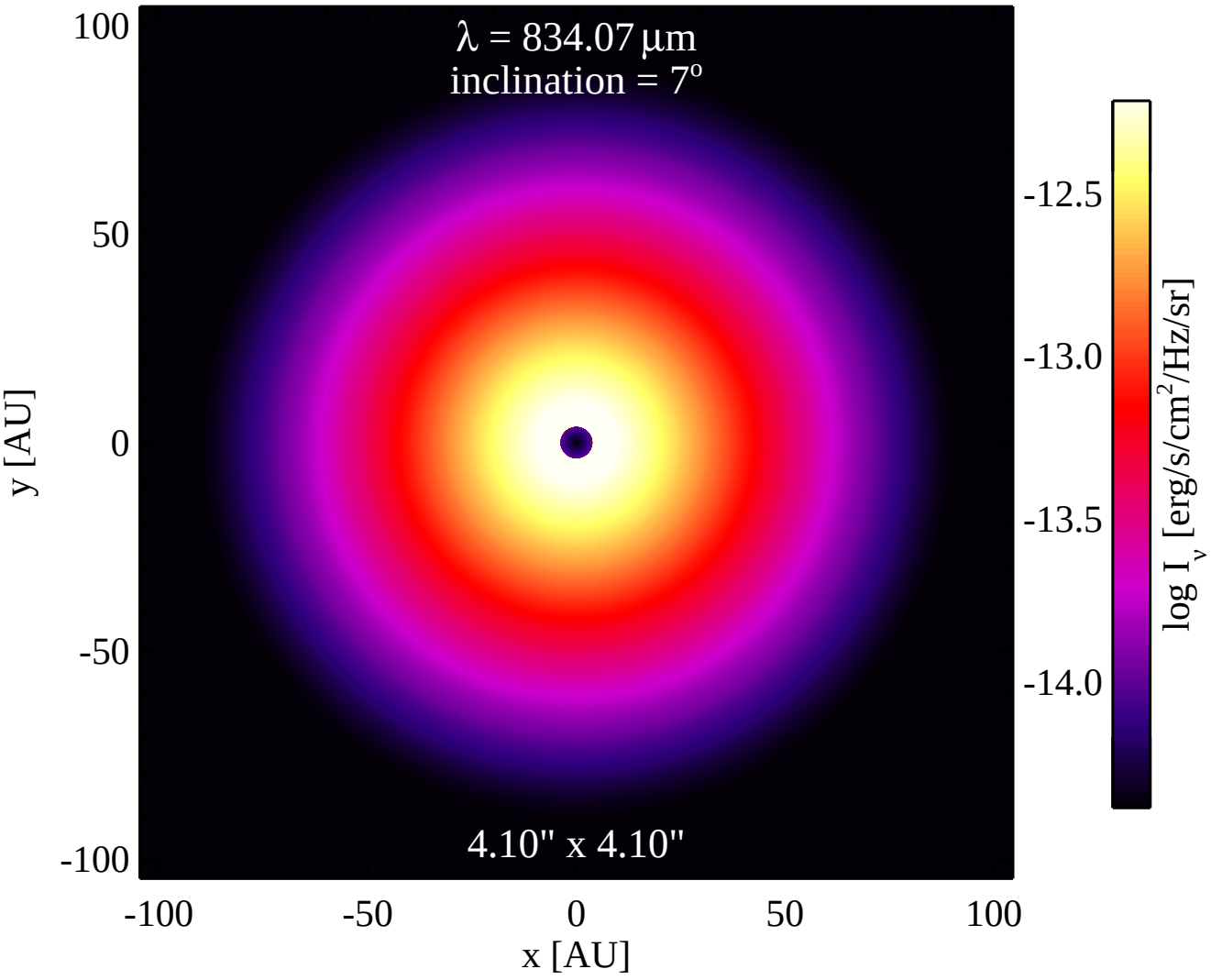

λ = 316.08 μm
inclination = 7°
4.10" x 4.10"
100
50
0
-50
-100
y [AU]
-100
-50
0
50
100
x [AU]
-12.0
-12.5
-13.0
-13.5
log I_ν [erg/s/cm²/Hz/sr]

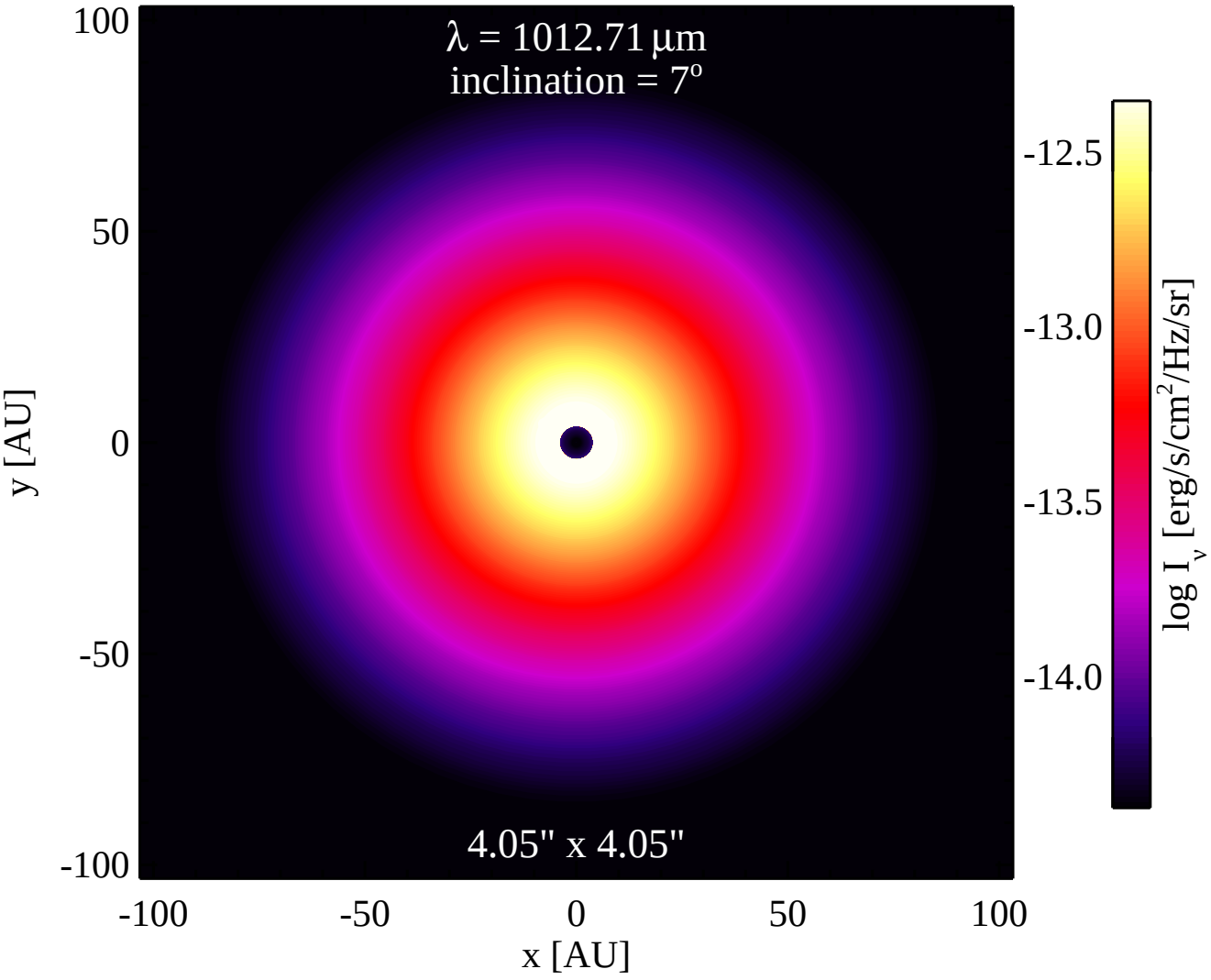

λ = 383.78 μm
inclination = 7°
4.13" x 4.13"
100
50
0
-50
-100
y [AU]
-100
-50
0
50
100
x [AU]
-12.0
-12.5
-13.0
-13.5
log I_ν [erg/s/cm²/Hz/sr]

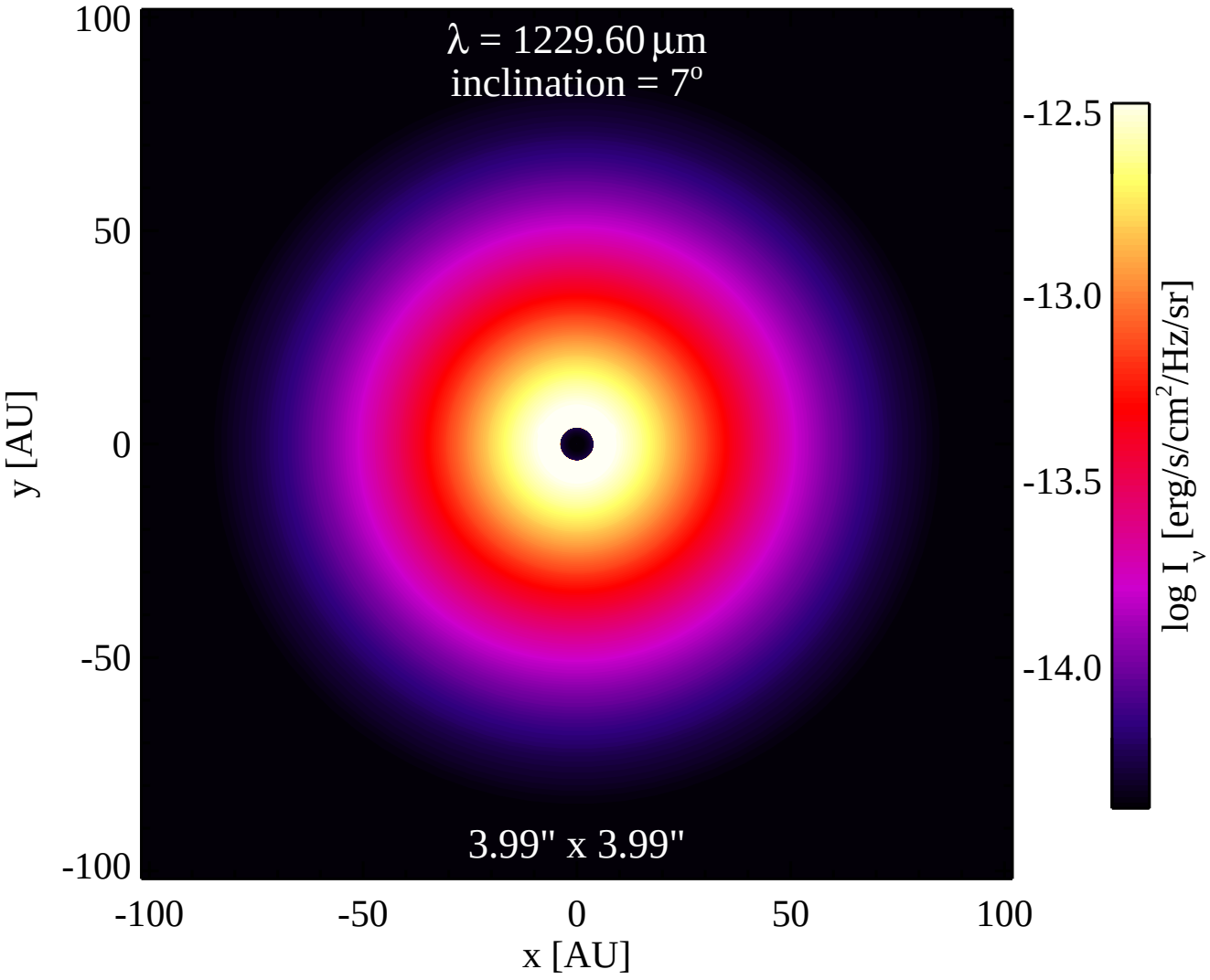

λ = 465.97 μm
inclination = 7°
4.16" x 4.16"
100
50
0
-50
-100
y [AU]
-100
-50
0
50
100
x [AU]
-12.0
-12.5
-13.0
-13.5
-14.0
log I_ν [erg/s/cm²/Hz/sr]

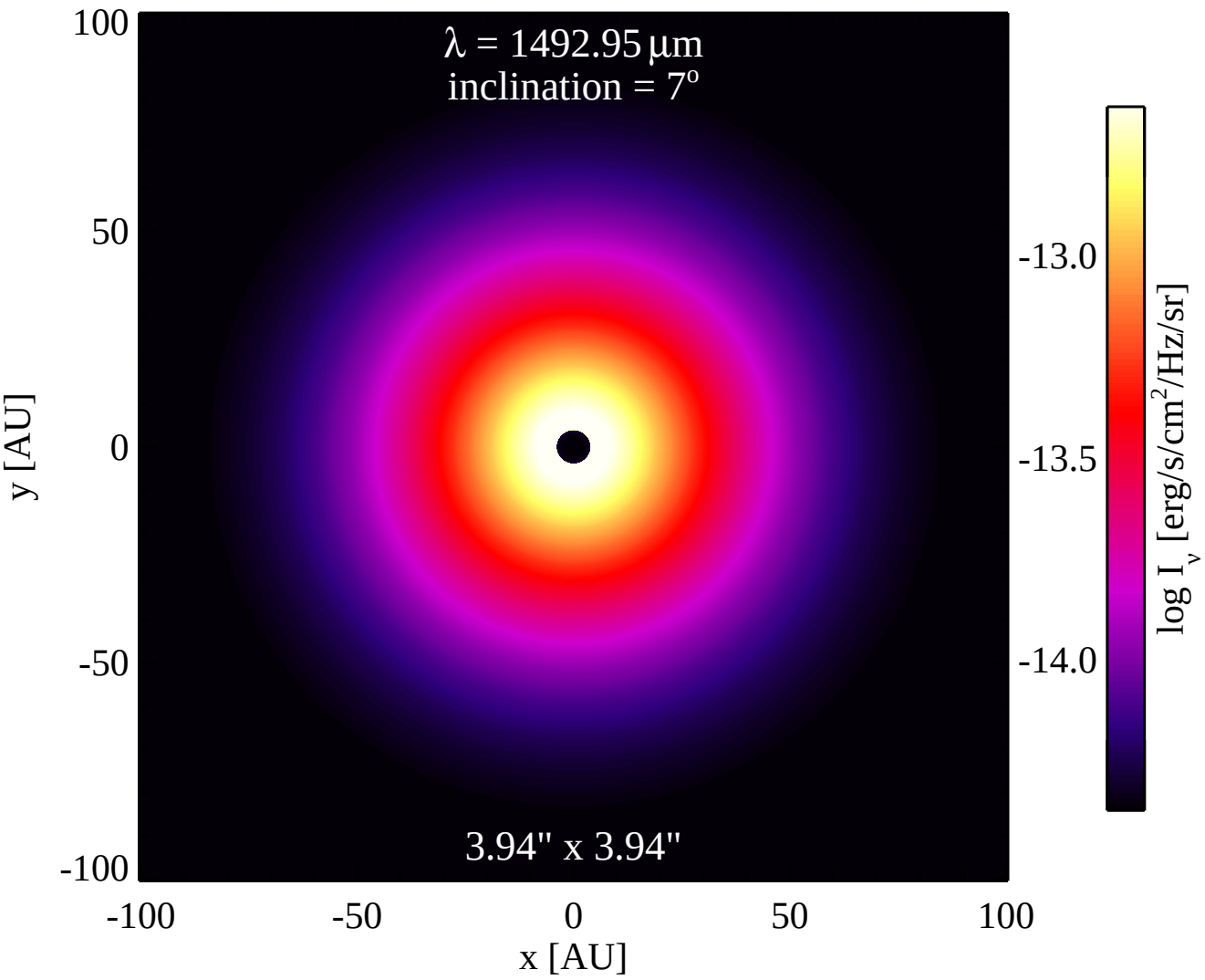

λ = 565.77 μm
inclination = 7°
4.14" x 4.14"
100
50
0
-50
-100
y [AU]
-100
-50
0
50
100
x [AU]
-12.0
-12.5
-13.0
-13.5
-14.0
log I_ν [erg/s/cm²/Hz/sr]

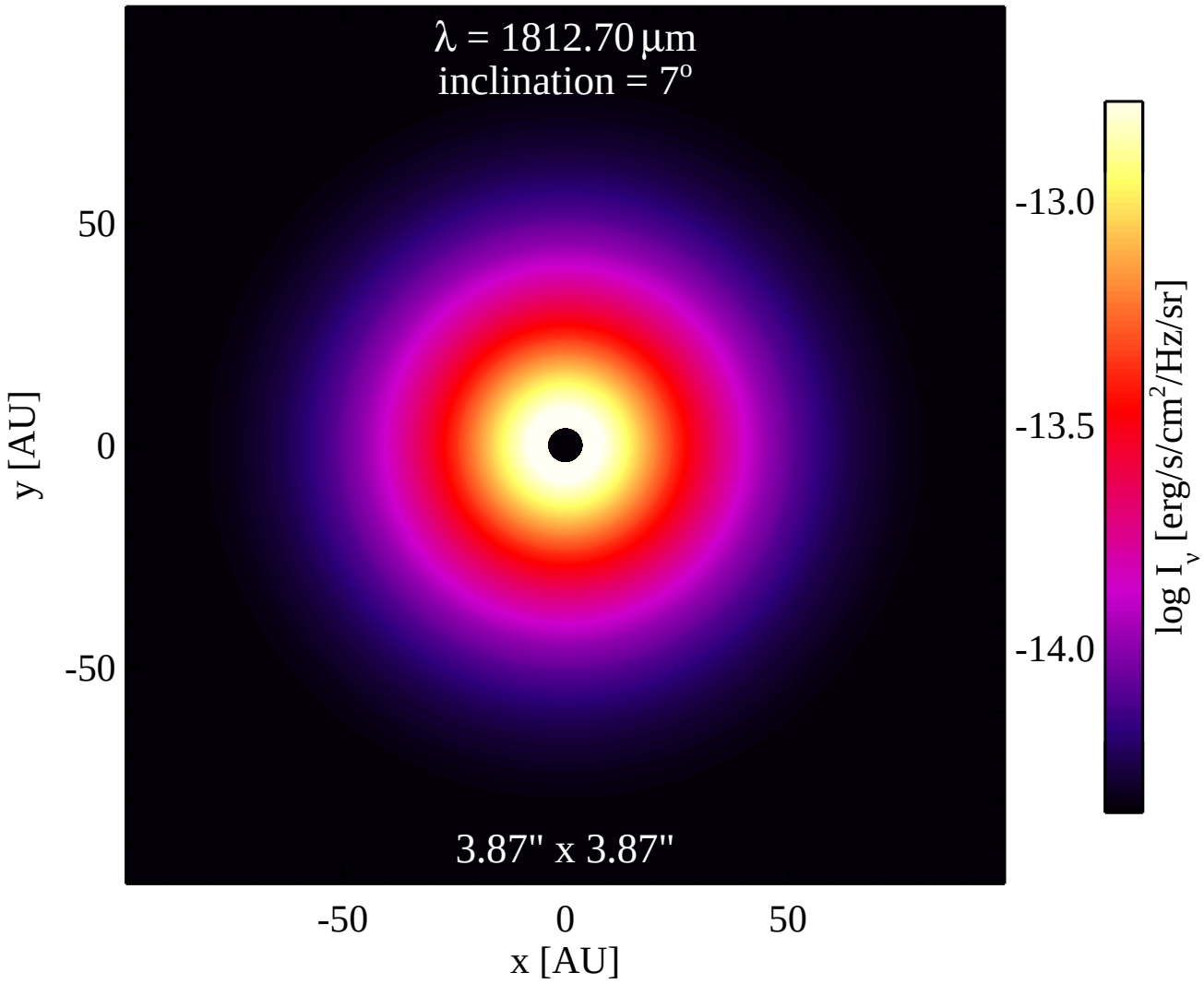

λ = 686.94 μm
inclination = 7°
4.13" x 4.13"
100
50
0
-50
-100
y [AU]
-100
-50
0
50
100
x [AU]
-12.5
-13.0
-13.5
-14.0
log I_ν [erg/s/cm²/Hz/sr]

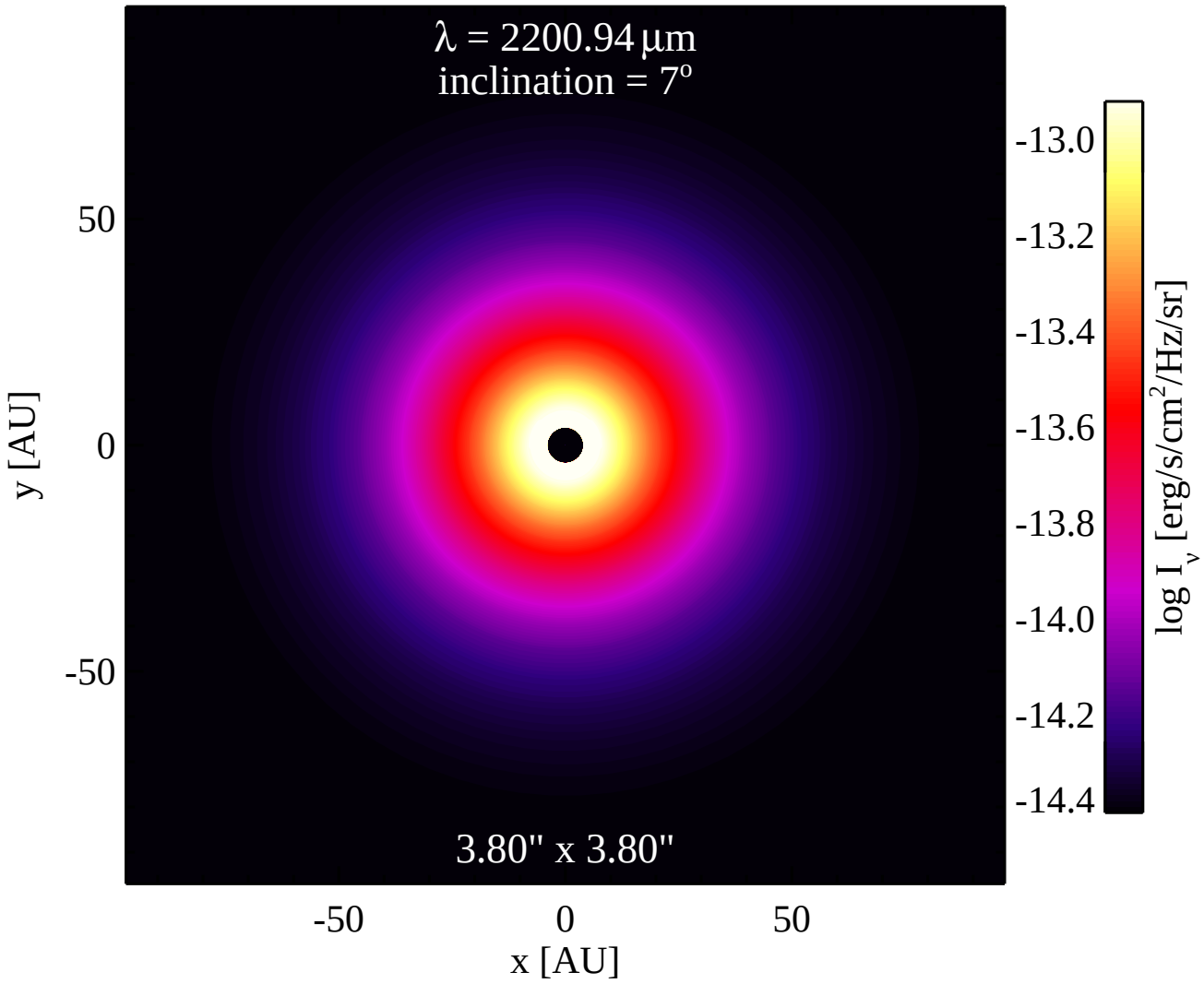

λ = 834.07 μm
inclination = 7°
4.10" x 4.10"
100
50
0
-50
-100
y [AU]
-100
-50
0
50
100
x [AU]
-12.5
-13.0
-13.5
-14.0
log I_ν [erg/s/cm²/Hz/sr]

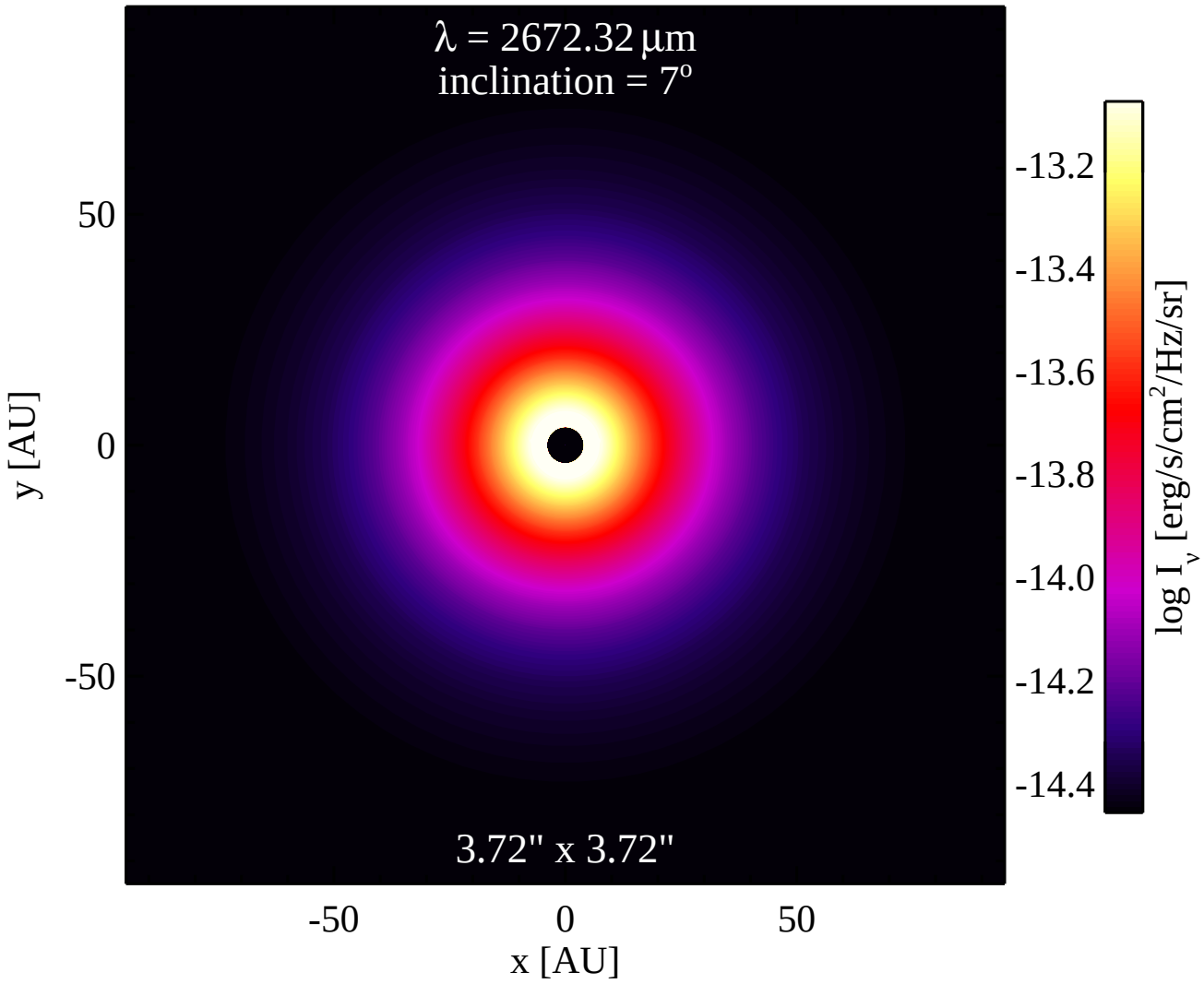

λ = 1012.71 μm
inclination = 7°
4.05" x 4.05"
100
50
0
-50
-100
y [AU]
-100
-50
0
50
100
x [AU]
-12.5
-13.0
-13.5
-14.0
log I_ν [erg/s/cm²/Hz/sr]

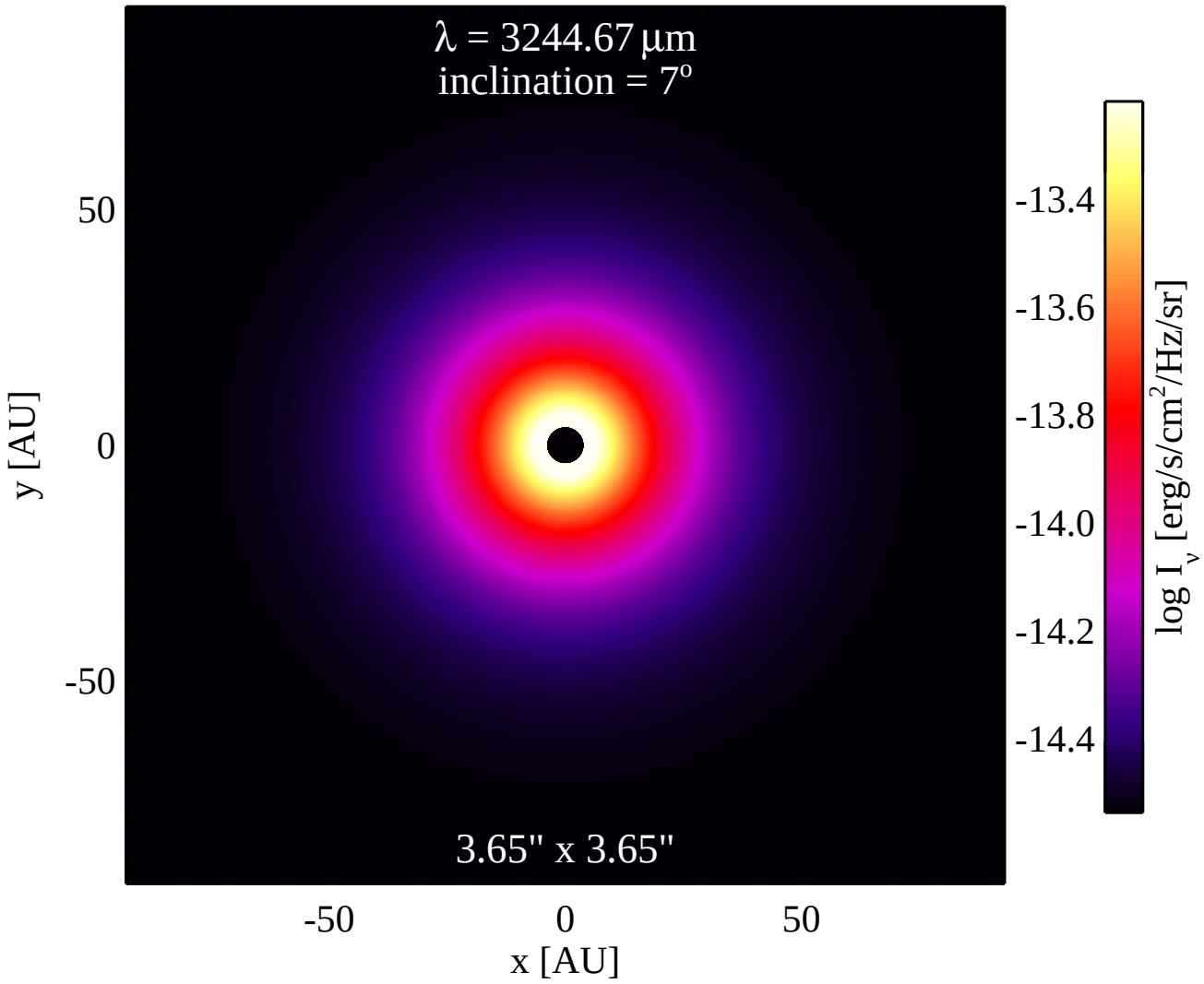

λ = 1229.60 μm
inclination = 7°
3.99" x 3.99"
100
50
0
-50
-100
y [AU]
-100
-50
0
50
100
x [AU]
-12.5
-13.0
-13.5
-14.0
log I_ν [erg/s/cm²/Hz/sr]

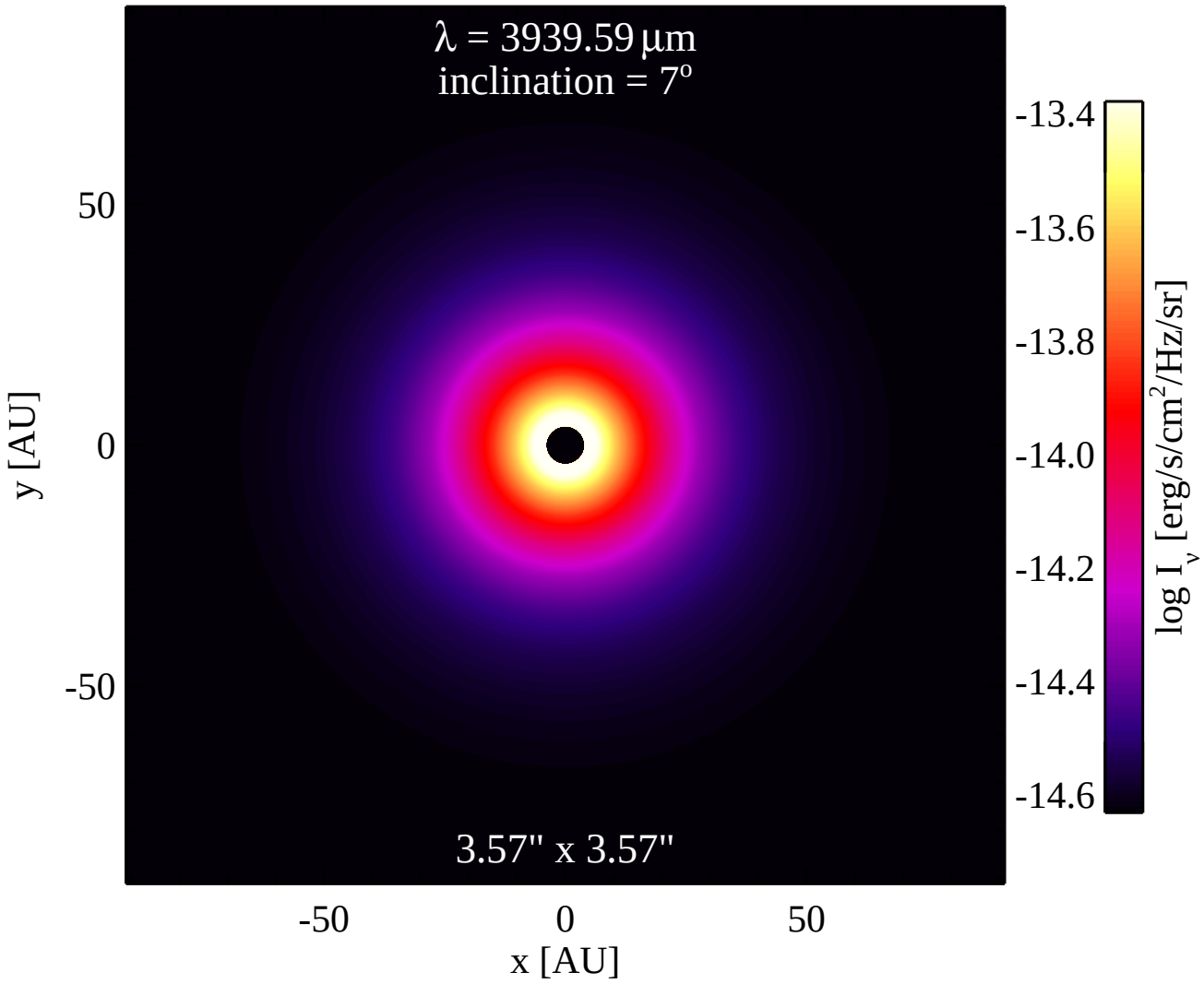

λ = 1492.95 μm
inclination = 7°
3.94" x 3.94"
100
50
0
-50
-100
y [AU]
-100
-50
0
50
100
x [AU]
-13.0
-13.5
-14.0
log I_ν [erg/s/cm²/Hz/sr]

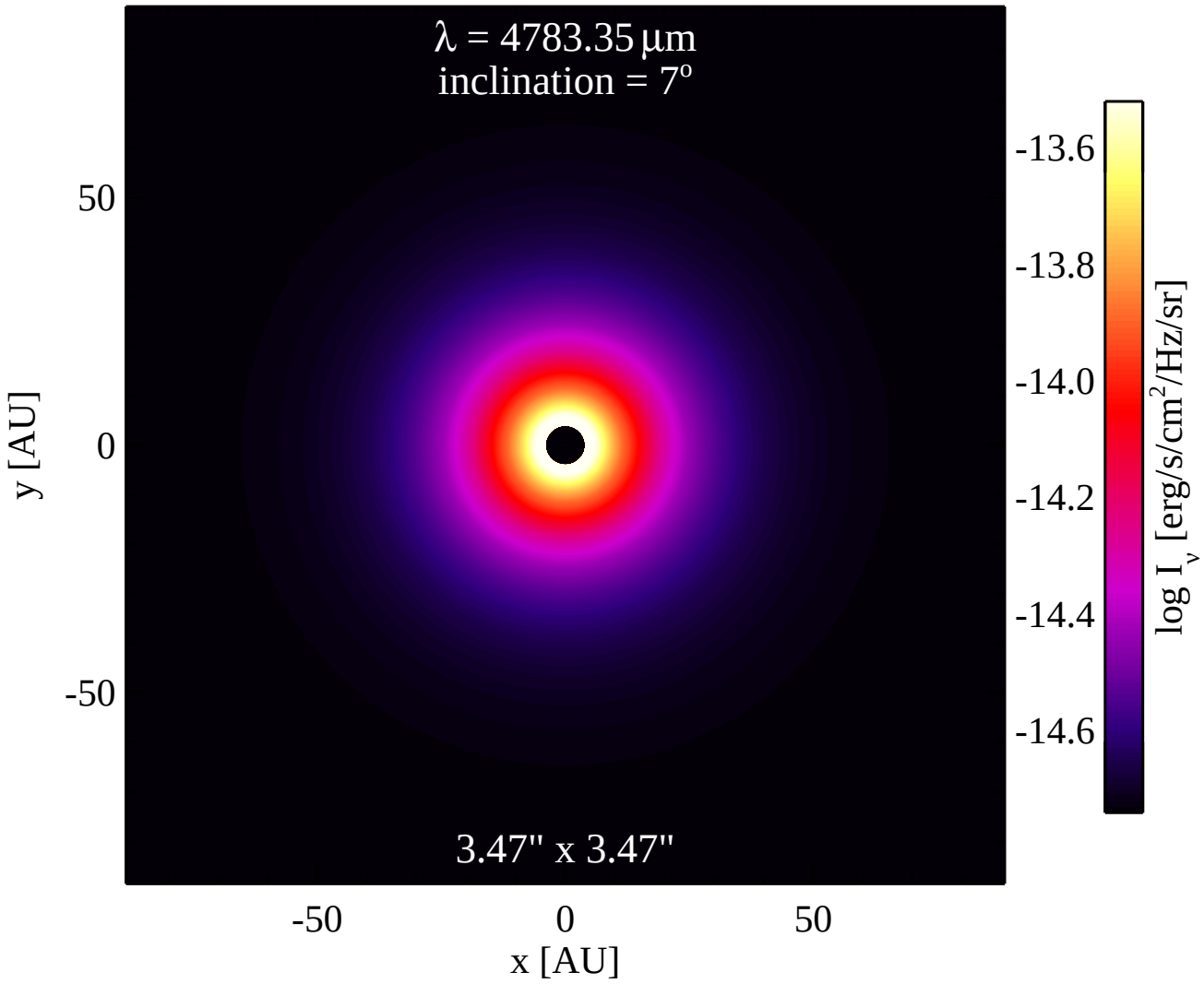

λ = 1812.70 μm
inclination = 7°
3.87" x 3.87"
50
0
-50
y [AU]
-50
0
50
x [AU]
-13.0
-13.5
-14.0
log I_ν [erg/s/cm²/Hz/sr]

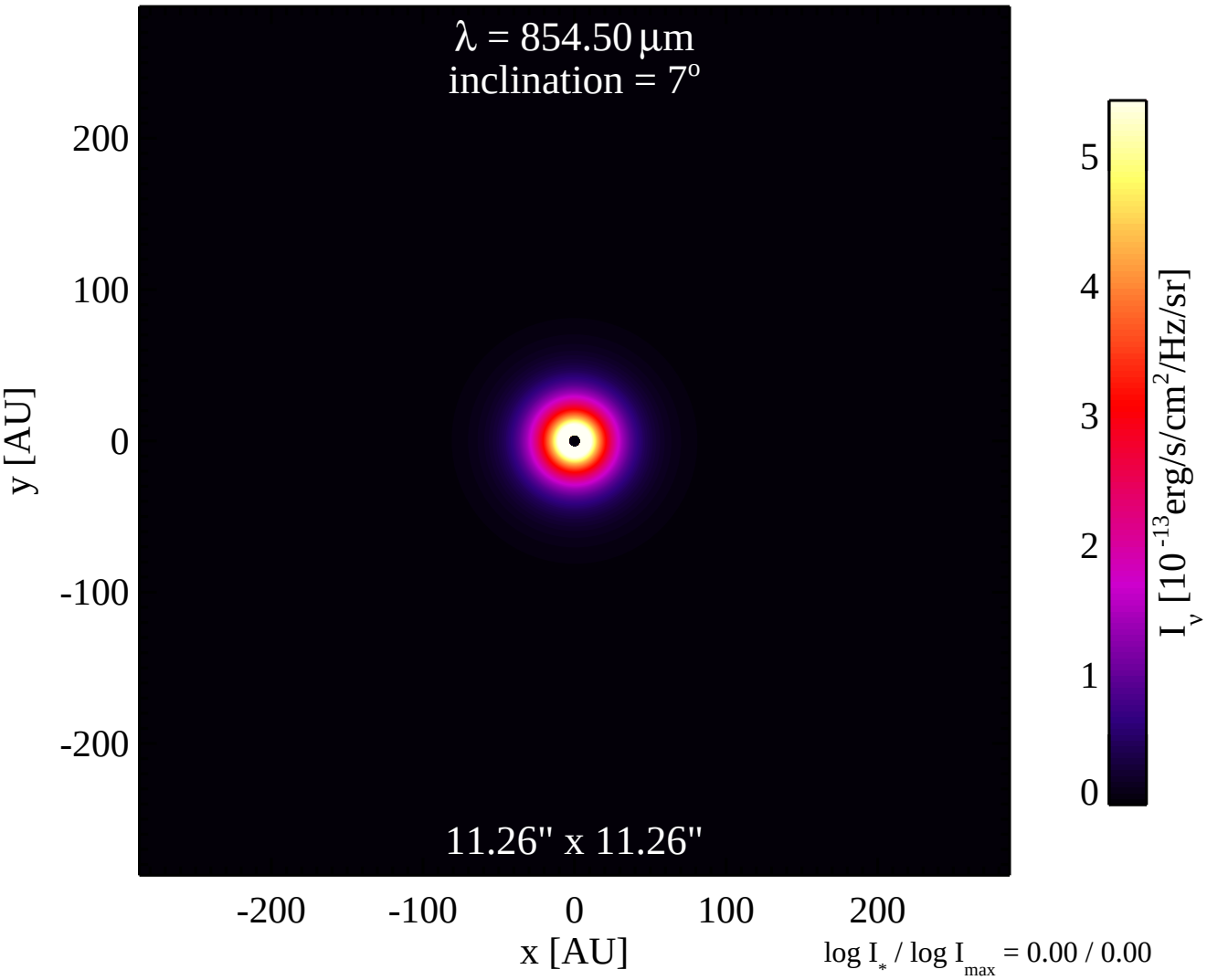

λ = 2200.94 μm
inclination = 7°
3.80" x 3.80"
50
0
-50
y [AU]
-50
0
50
x [AU]
-13.0
-13.2
-13.4
-13.6
-13.8
-14.0
-14.2
-14.4
log I_ν [erg/s/cm²/Hz/sr]

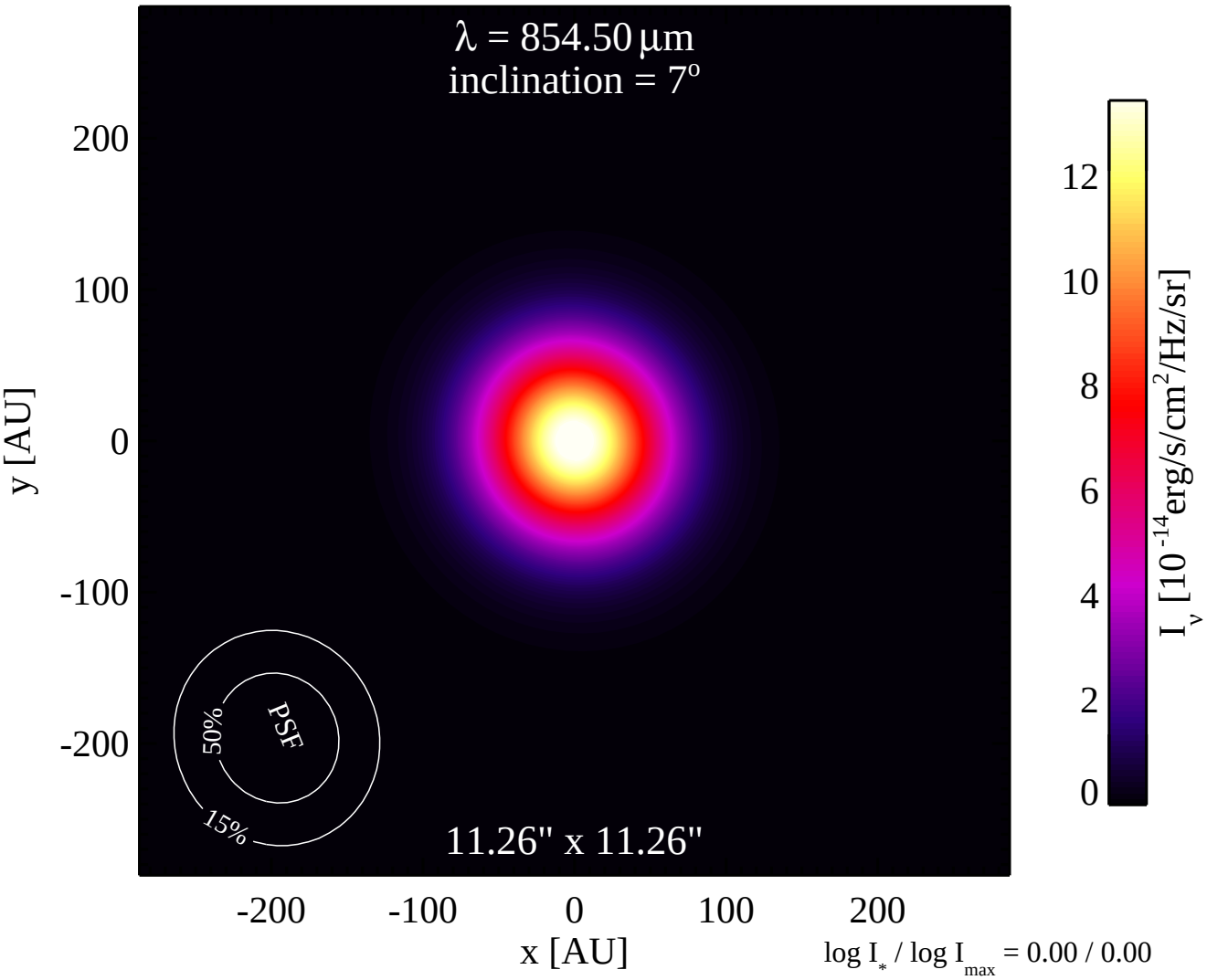

λ = 2672.32 μm
inclination = 7°
3.72" x 3.72"
50
0
-50
y [AU]
-50
0
50
x [AU]
-13.2
-13.4
-13.6
-13.8
-14.0
-14.2
-14.4
log I_ν [erg/s/cm²/Hz/sr]

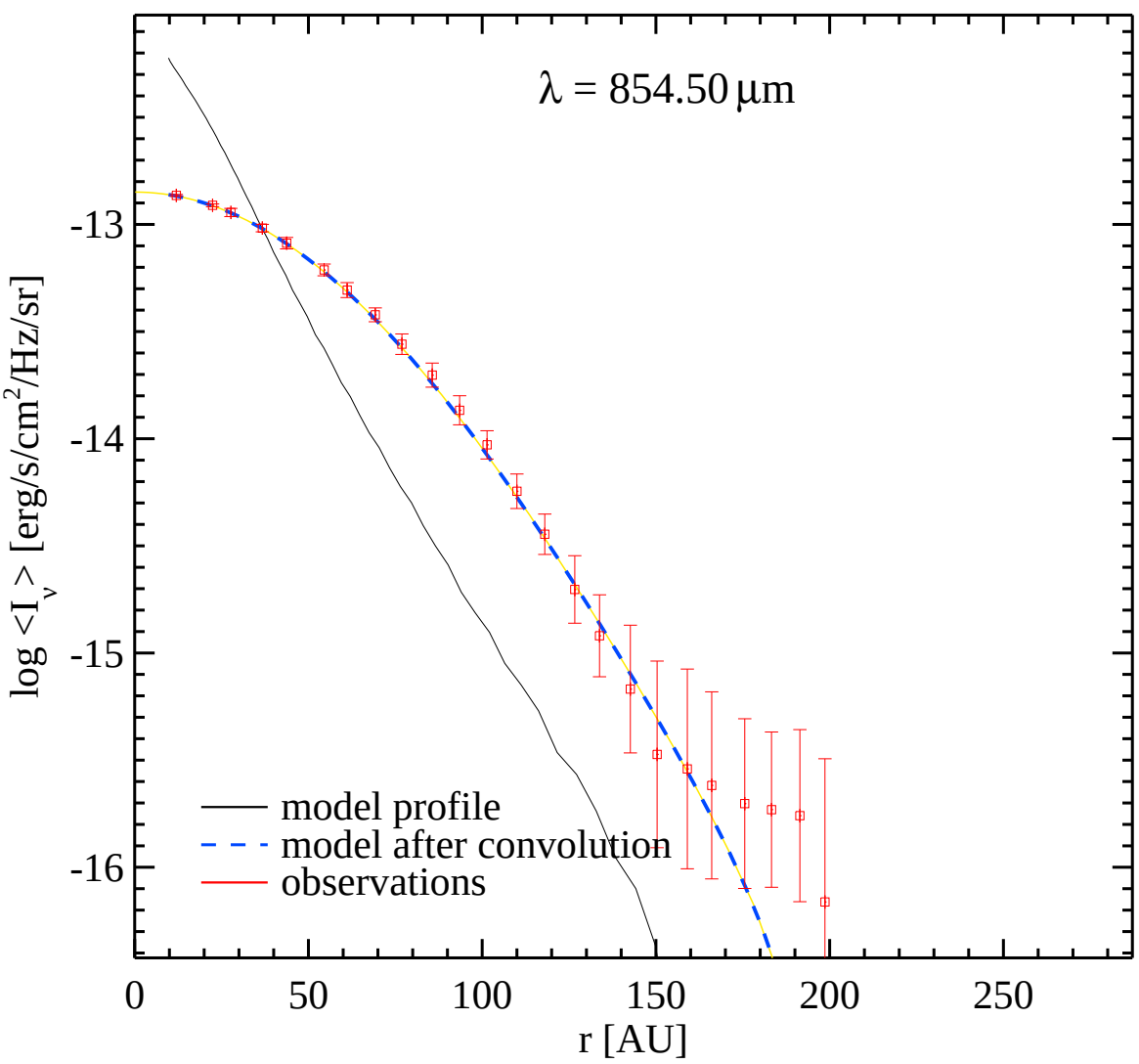

λ = 3244.67 μm
inclination = 7°
3.65" x 3.65"
50
0
-50
y [AU]
-50
0
50
x [AU]
-13.4
-13.6
-13.8
-14.0
-14.2
-14.4
log I_ν [erg/s/cm²/Hz/sr]

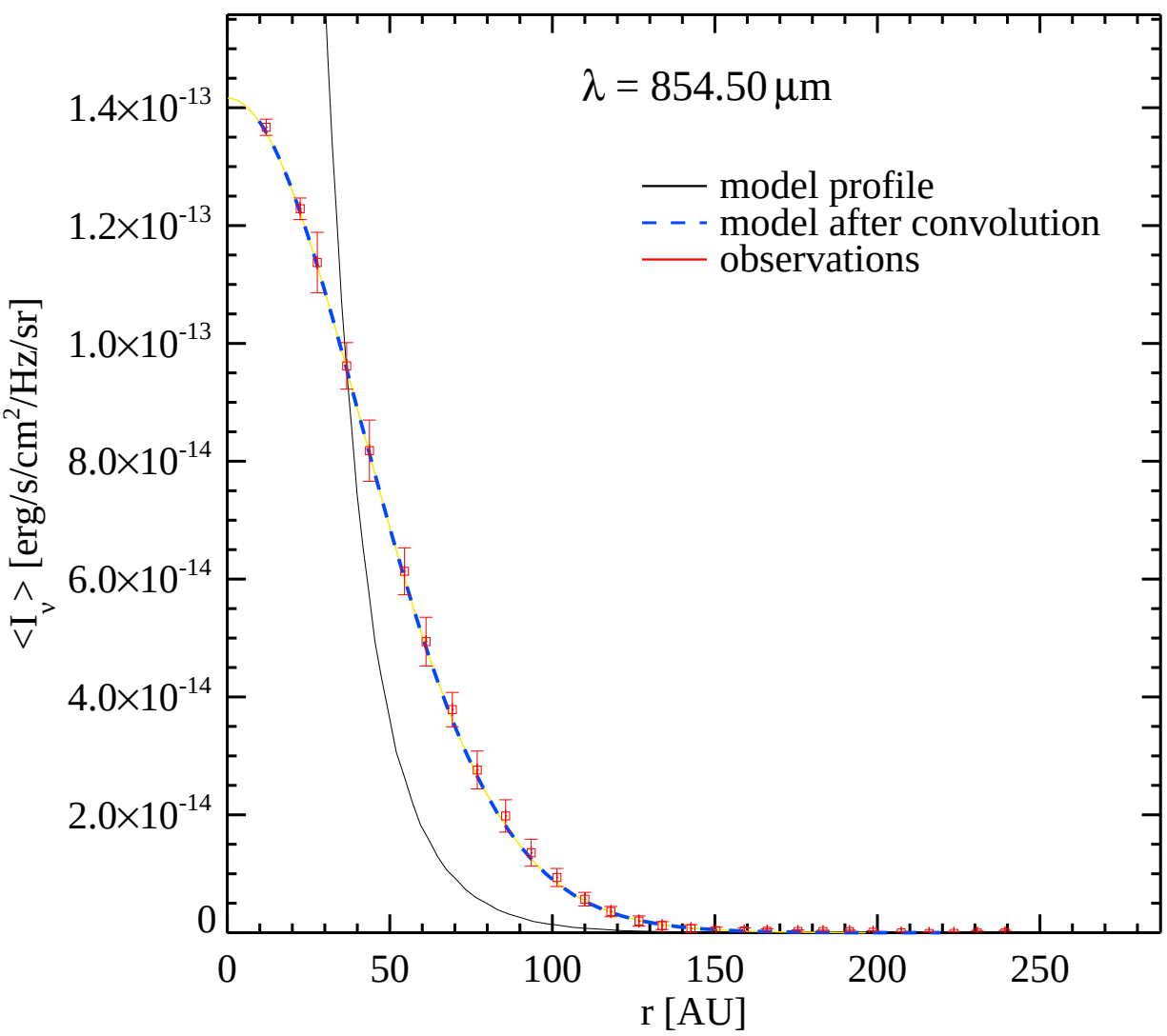

λ = 3939.59 μm
inclination = 7°
3.57" x 3.57"
50
0
-50
y [AU]
-50
0
50
x [AU]
-13.4
-13.6
-13.8
-14.0
-14.2
-14.4
-14.6
log I_ν [erg/s/cm²/Hz/sr]

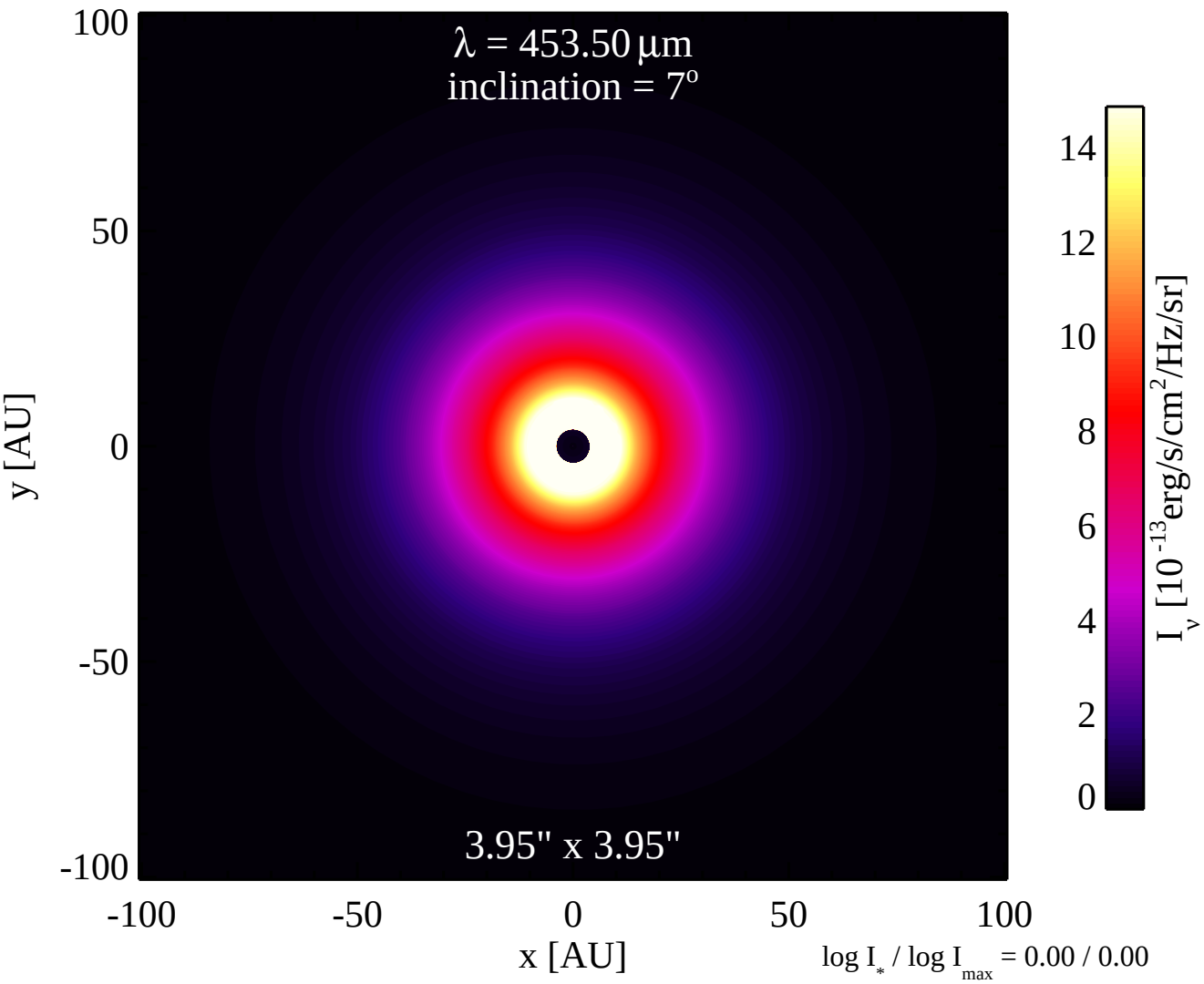

λ = 4783.35 μm
inclination = 7°
3.47" x 3.47"
50
0
-50
y [AU]
-50
0
50
x [AU]
-13.6
-13.8
-14.0
-14.2
-14.4
-14.6
log I_ν [erg/s/cm²/Hz/sr]

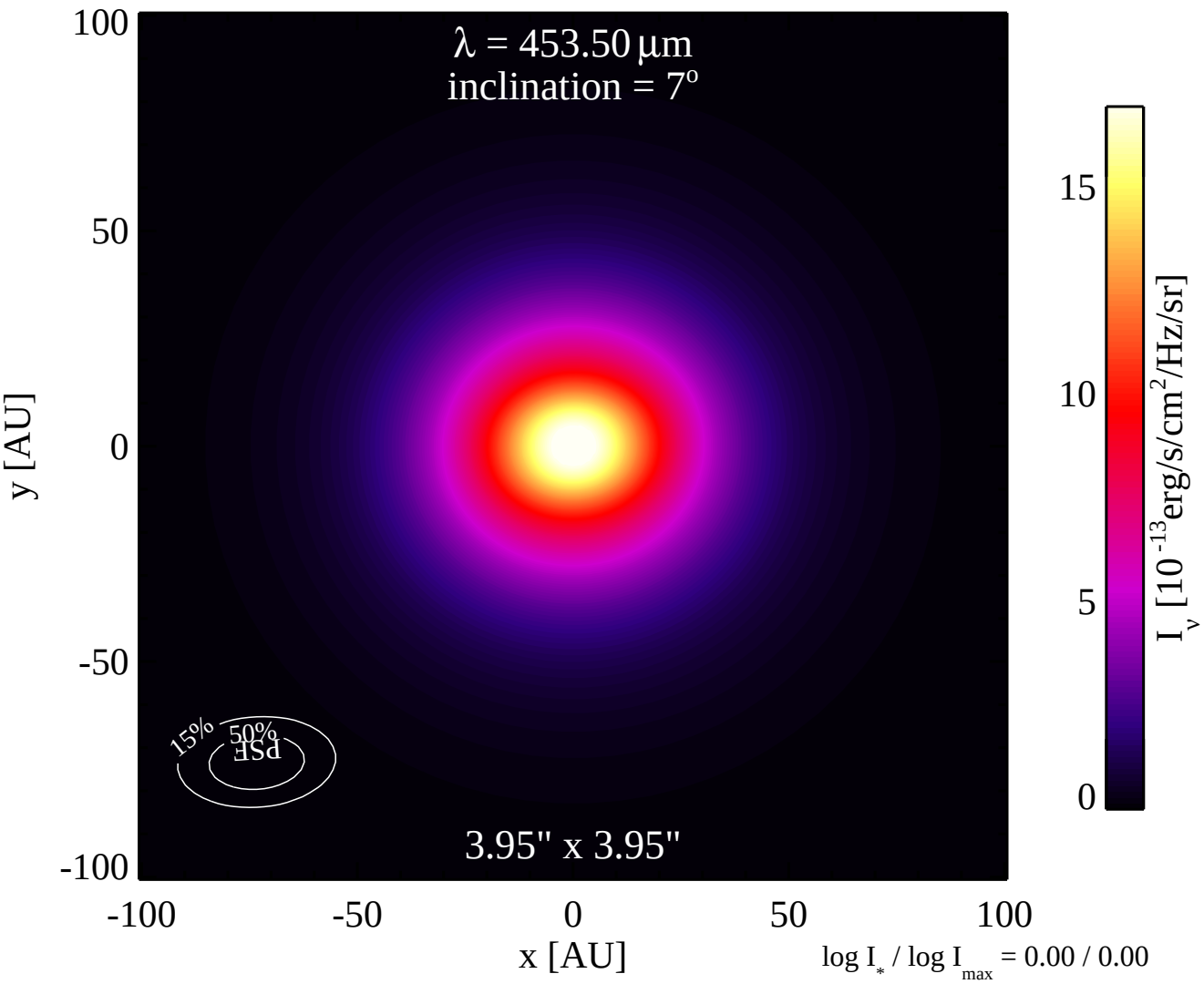

λ = 854.50 μm
inclination = 7°
11.26" x 11.26"
200
100
0
-100
-200
y [AU]
-200
-100
0
100
200
x [AU]
5
4
3
2
1
0
I_ν [10^-13 erg/s/cm^2/Hz/sr]
log I_* / log I_max = 0.00 / 0.00

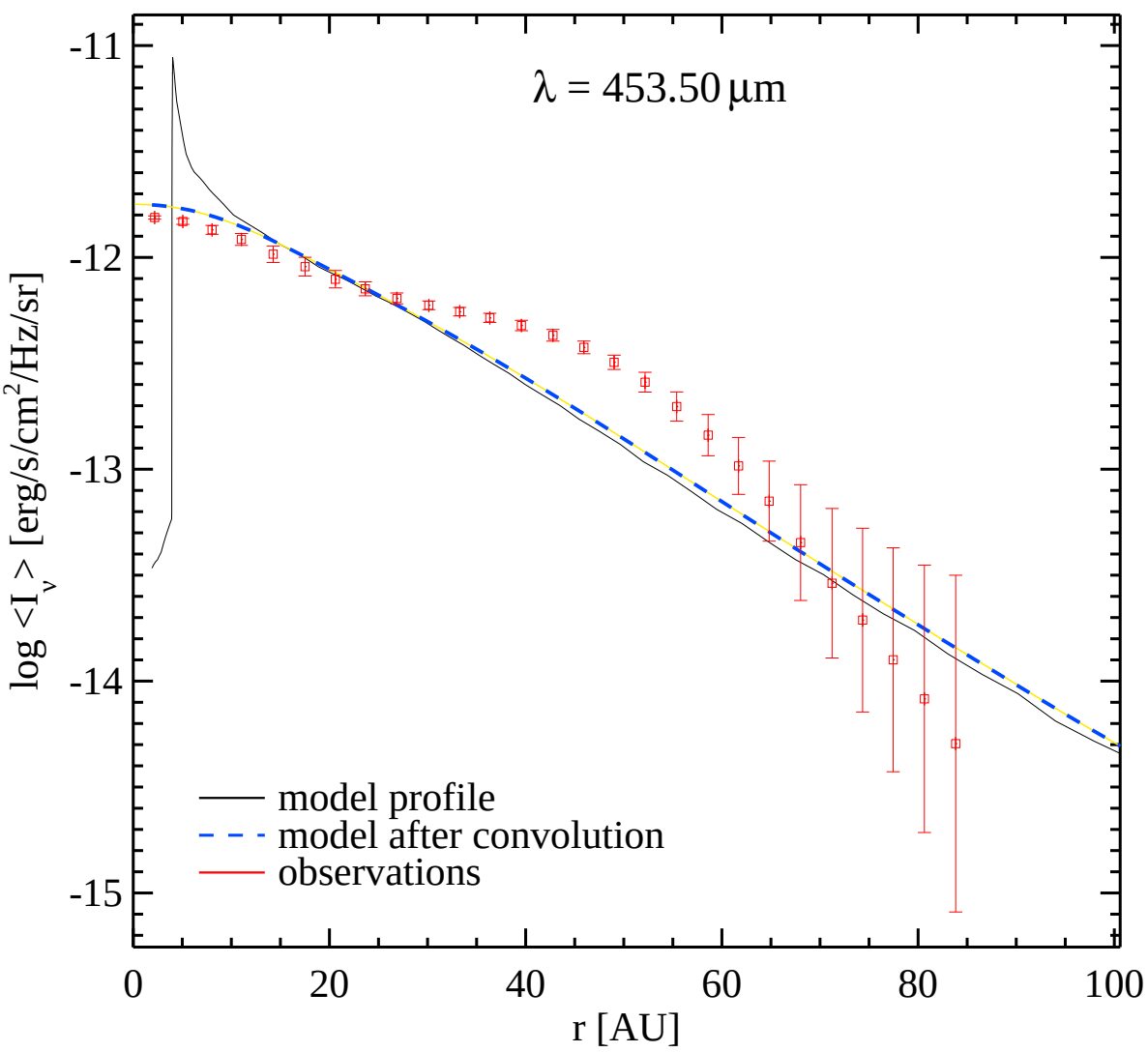

λ = 854.50 μm
inclination = 7°
200
100
0
-100
-200
y [AU]
PSF
50%
15%
11.26" x 11.26"
-200
-100
0
100
200
x [AU]
12
10
8
6
4
2
0
I_ν [10^-14 erg/s/cm^2/Hz/sr]
log I_* / log I_max = 0.00 / 0.00

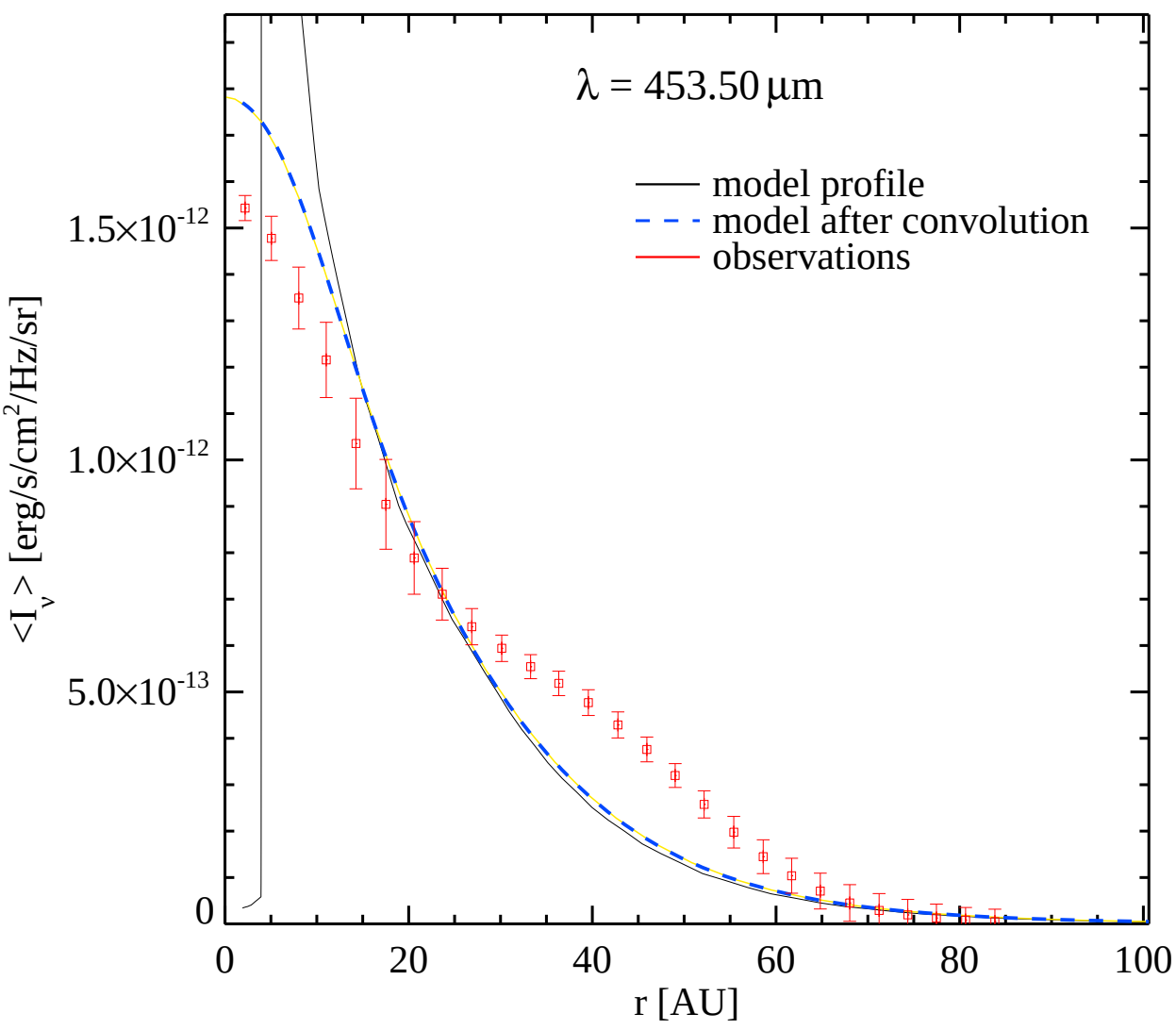

λ = 854.50 μm
log <I_ν> [erg/s/cm²/Hz/sr]
-13
-14
-15
-16
0
50
100
150
200
250
r [AU]
model profile
model after convolution
observations


λ = 854.50 μm
model profile
model after convolution
observations
<I_ν> [erg/s/cm²/Hz/sr]
1.4×10^-13
1.2×10^-13
1.0×10^-13
8.0×10^-14
6.0×10^-14
4.0×10^-14
2.0×10^-14
0
0
50
100
150
200
250
r [AU]


λ = 453.50 μm
inclination = 7°
3.95" x 3.95"
100
50
0
-50
-100
y [AU]
-100
-50
0
50
100
x [AU]
14
12
10
8
6
4
2
0
I_ν [10^-13 erg/s/cm^2/Hz/sr]
log I_* / log I_max = 0.00 / 0.00


λ = 453.50 μm
inclination = 7°
3.95" x 3.95"
15%
50%
PSF
100
50
0
-50
-100
y [AU]
-100
-50
0
50
100
x [AU]
15
10
5
0
I_ν [10^-13 erg/s/cm^2/Hz/sr]
log I_* / log I_max = 0.00 / 0.00


λ = 453.50 μm
log <I_ν> [erg/s/cm²/Hz/sr]
-11
-12
-13
-14
-15
0
20
40
60
80
100
r [AU]
model profile
model after convolution
observations


λ = 453.50 μm
model profile
model after convolution
observations
1.5×10-12
1.0×10-12
5.0×10-13
0
<Iν> [erg/s/cm2/Hz/sr]
0
20
40
60
80
100
r [AU]