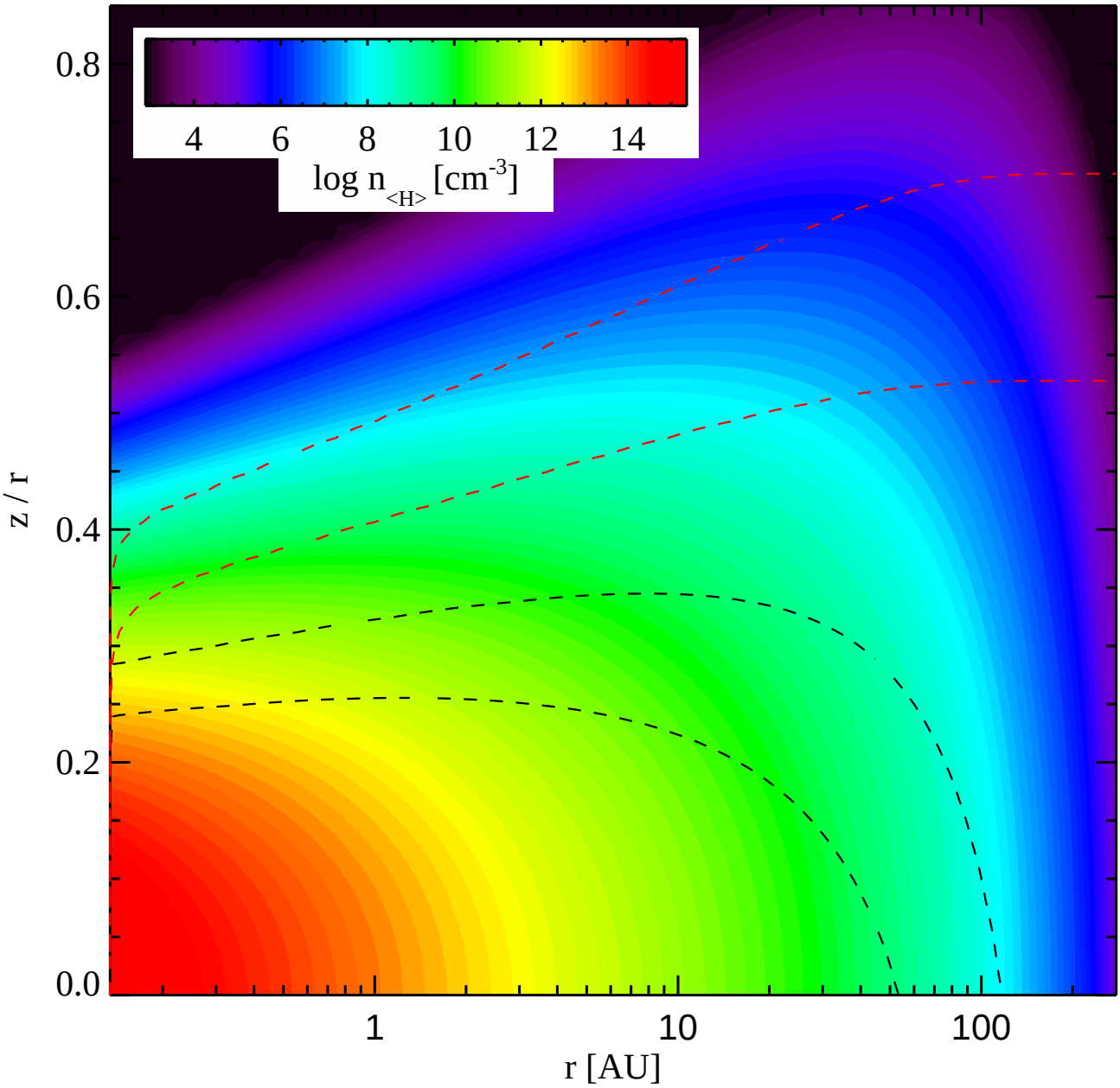
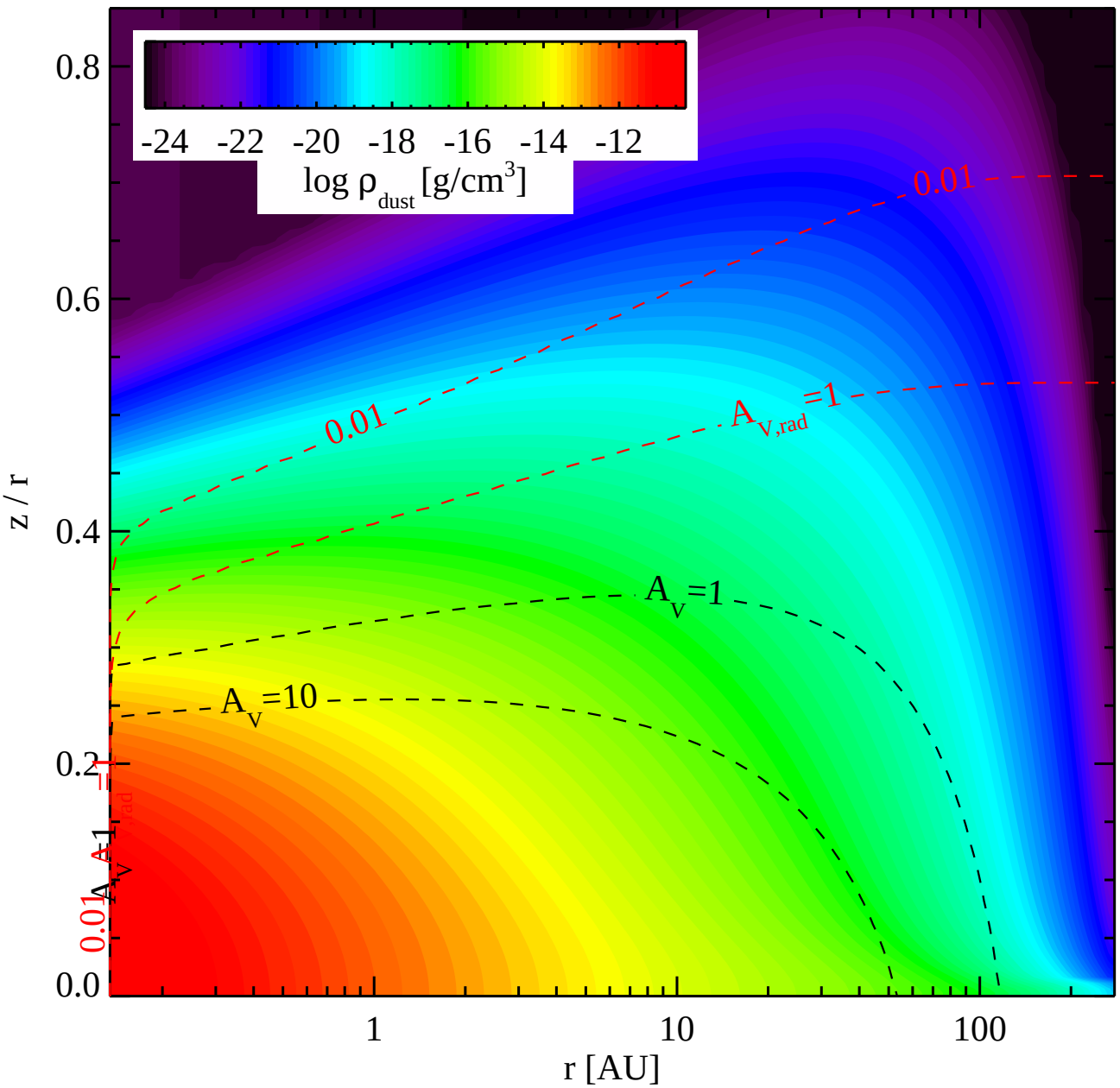
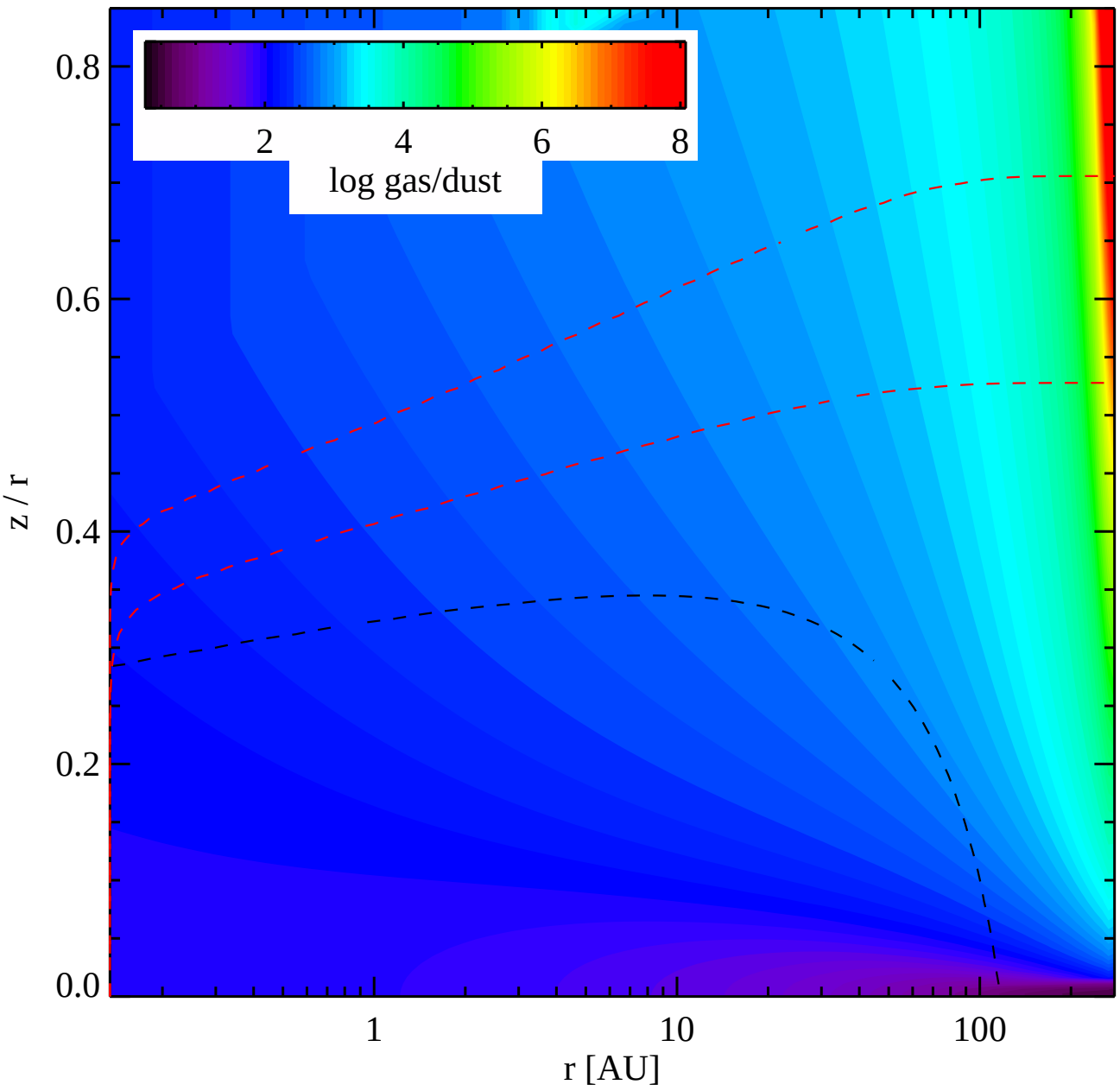
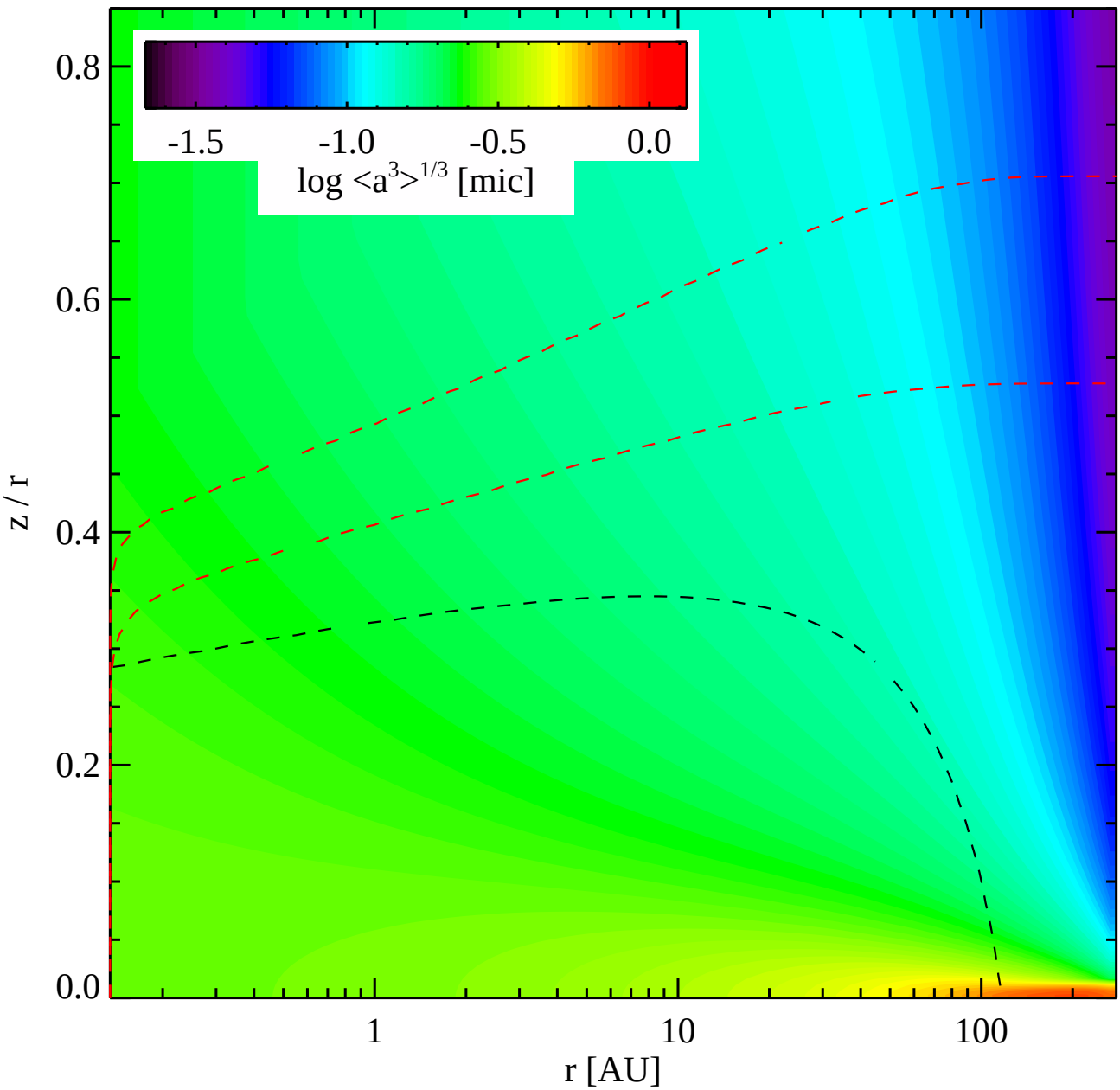
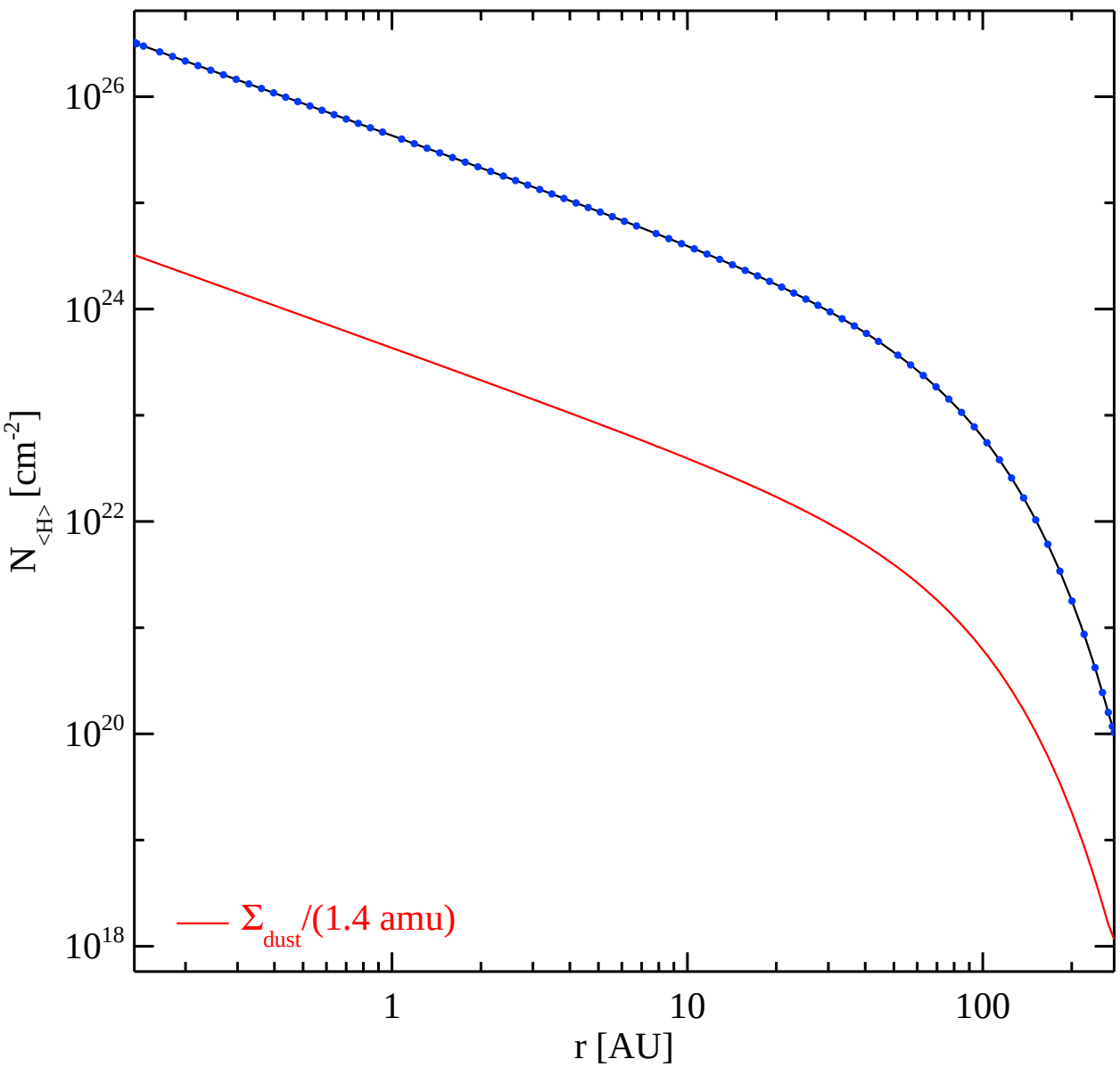
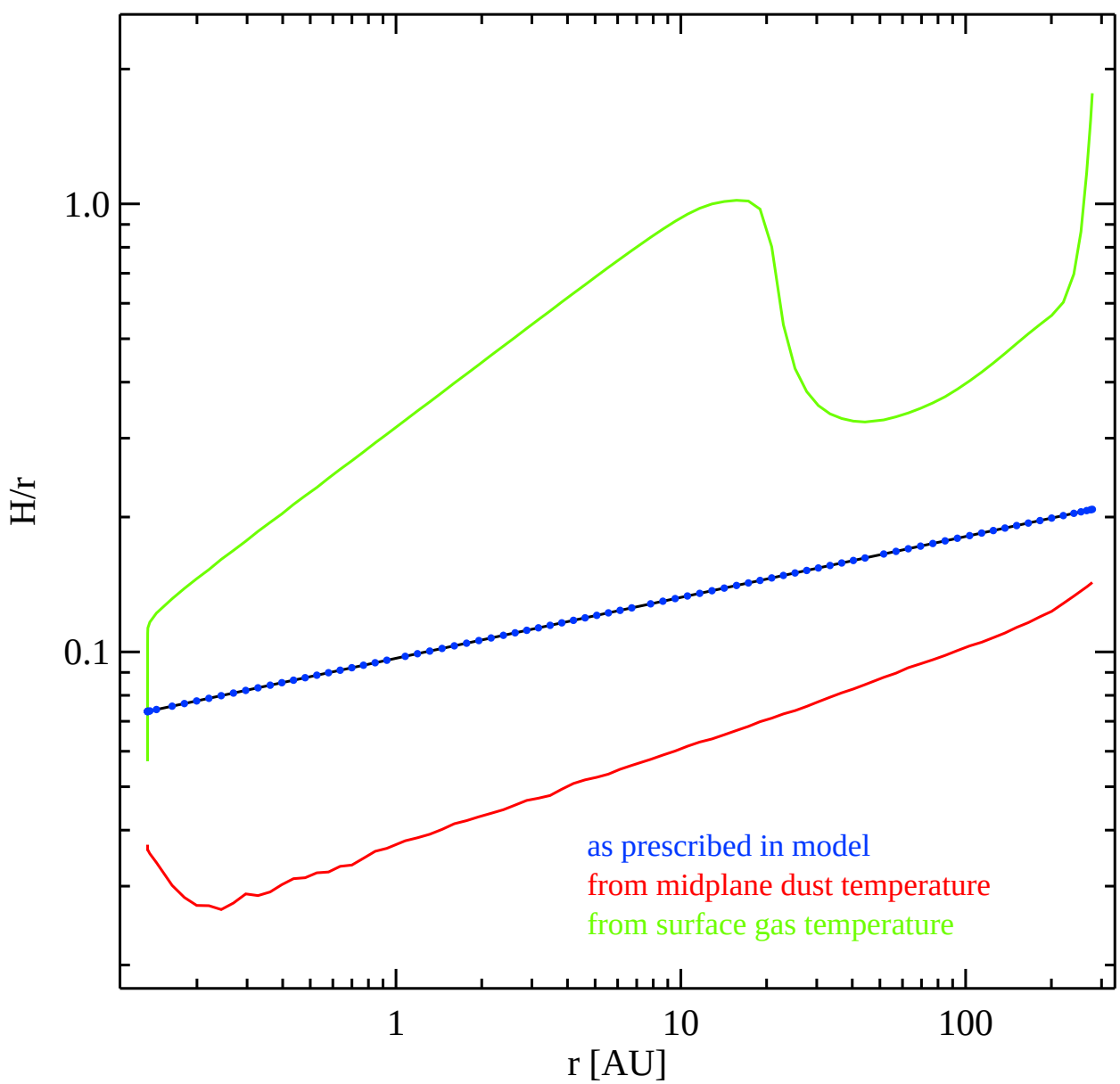

4
6
8
10
12
14
log n<H> [cm-3]
0.8
0.6
0.4
0.2
0.0
z / r
1
10
100
r [AU]

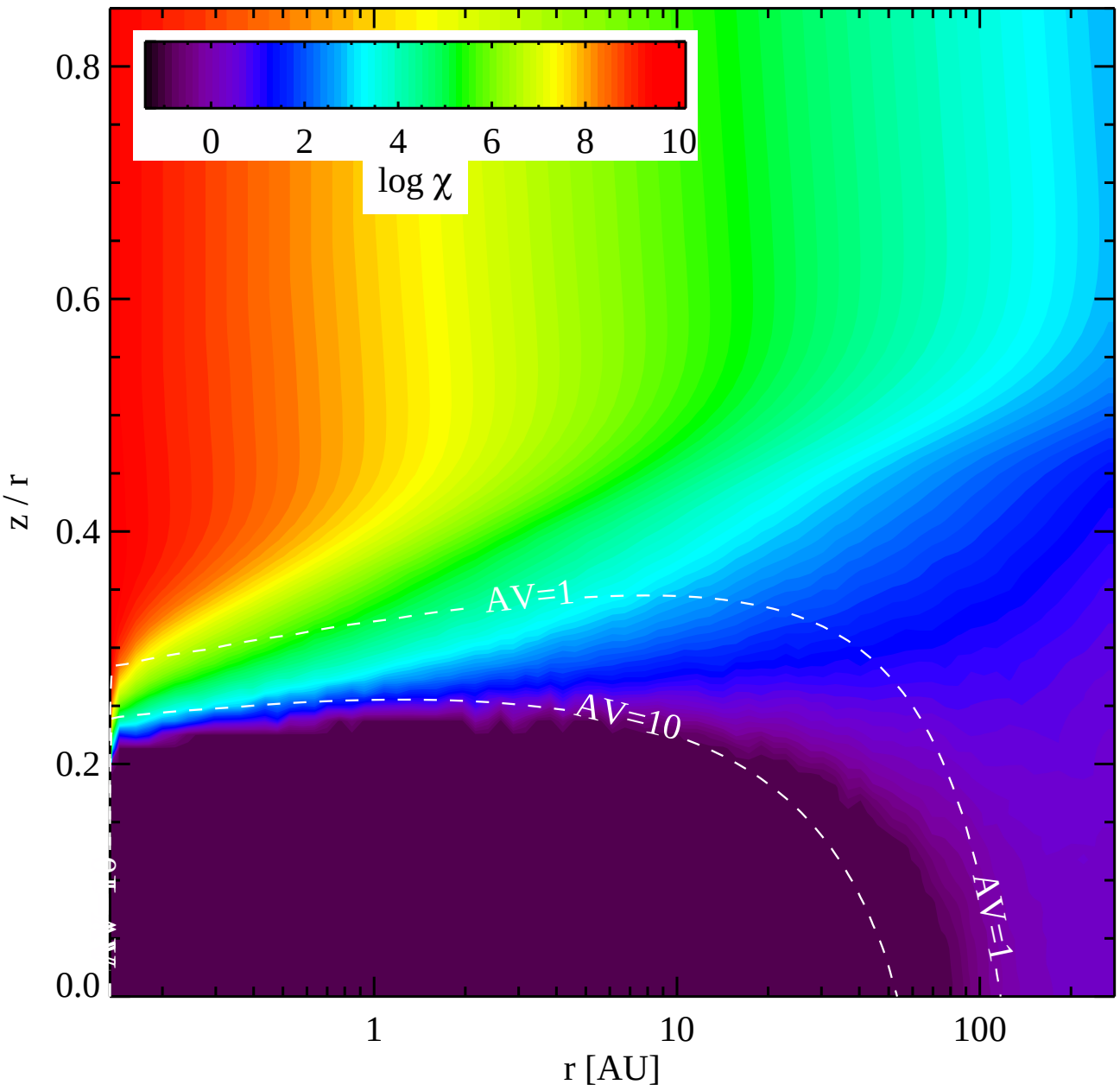

-24 -22 -20 -18 -16 -14 -12
log ρ dust [g/cm3]
0.8
0.6
0.4
0.2
0.0
z / r
1
10
100
r [AU]
0.01
AV,rad=1
AV=1
AV=10
0.01
AV,rad=1

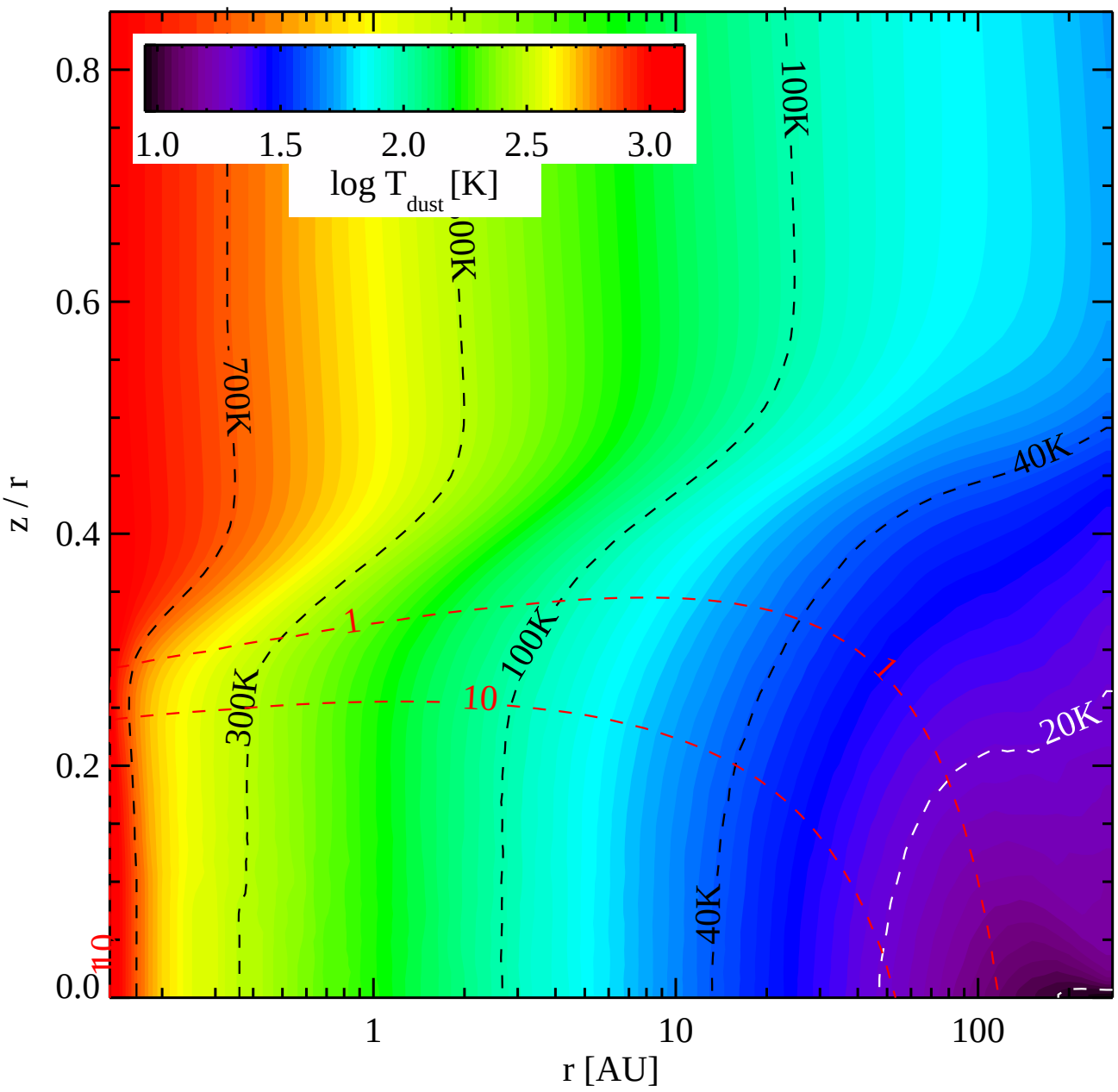

0.8
0.6
0.4
0.2
0.0
z / r
2
4
6
8
log gas/dust
1
10
100
r [AU]


-1.5
-1.0
-0.5
0.0
log <a^3>^1/3 [mic]
0.8
0.6
0.4
0.2
0.0
z / r
1
10
100
r [AU]

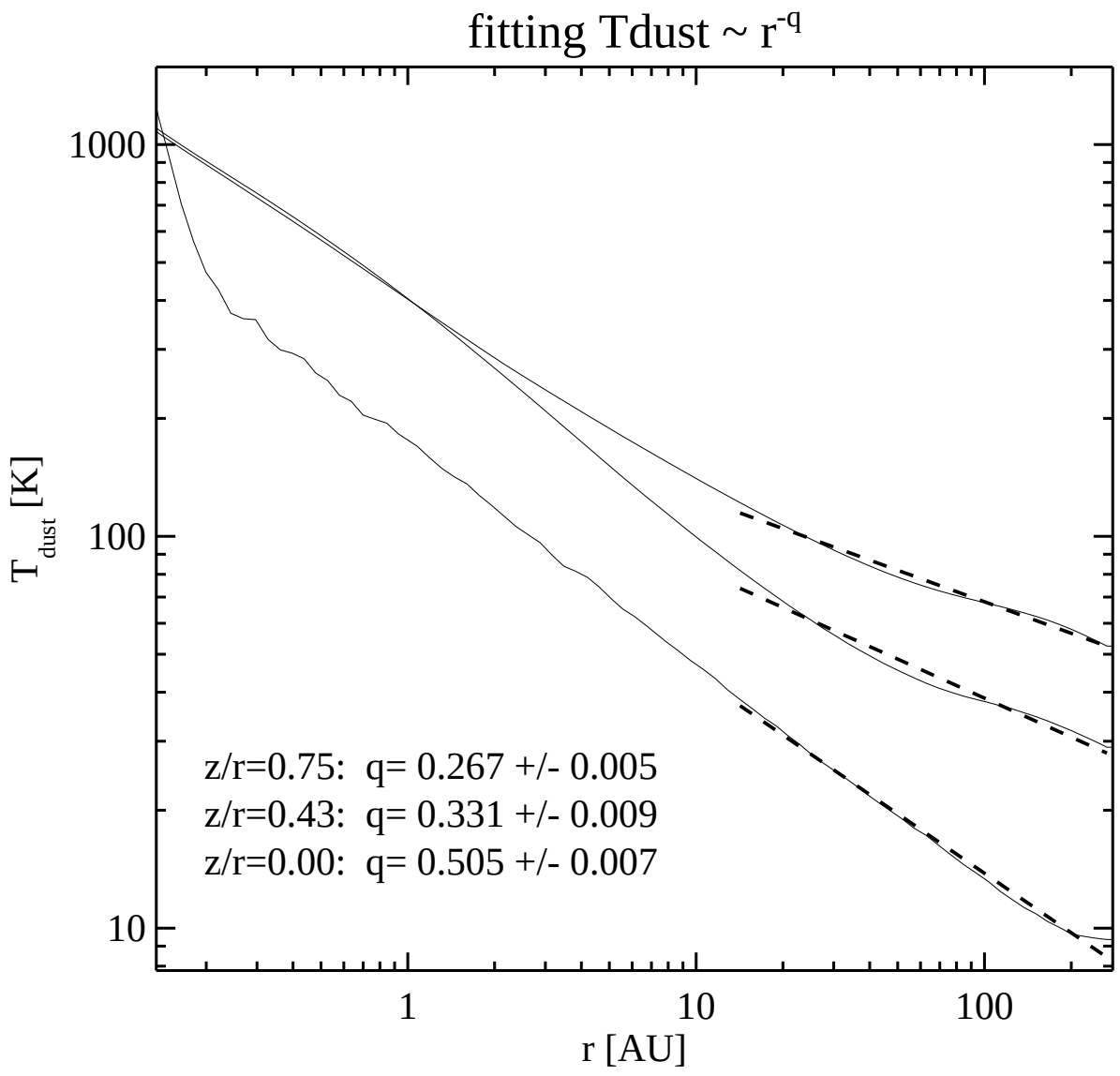

10^{26}
10^{24}
10^{22}
10^{20}
10^{18}
$N_{<H>}$ [cm^{-2}]
1
10
100
r [AU]
Σ_{dust}/(1.4 amu)

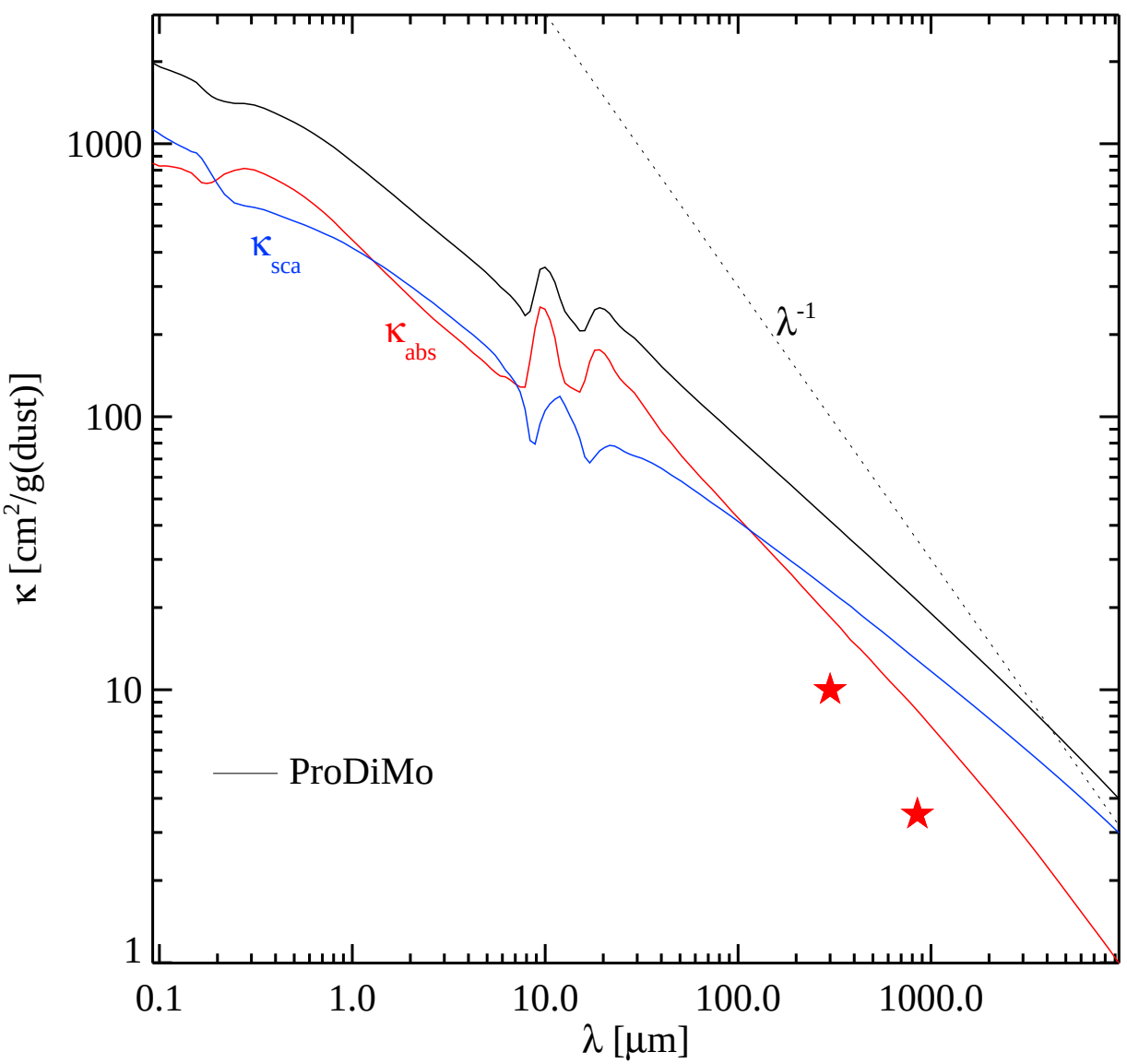

1.0
0.1
H/r
1
10
100
r [AU]
as prescribed in model
from midplane dust temperature
from surface gas temperature

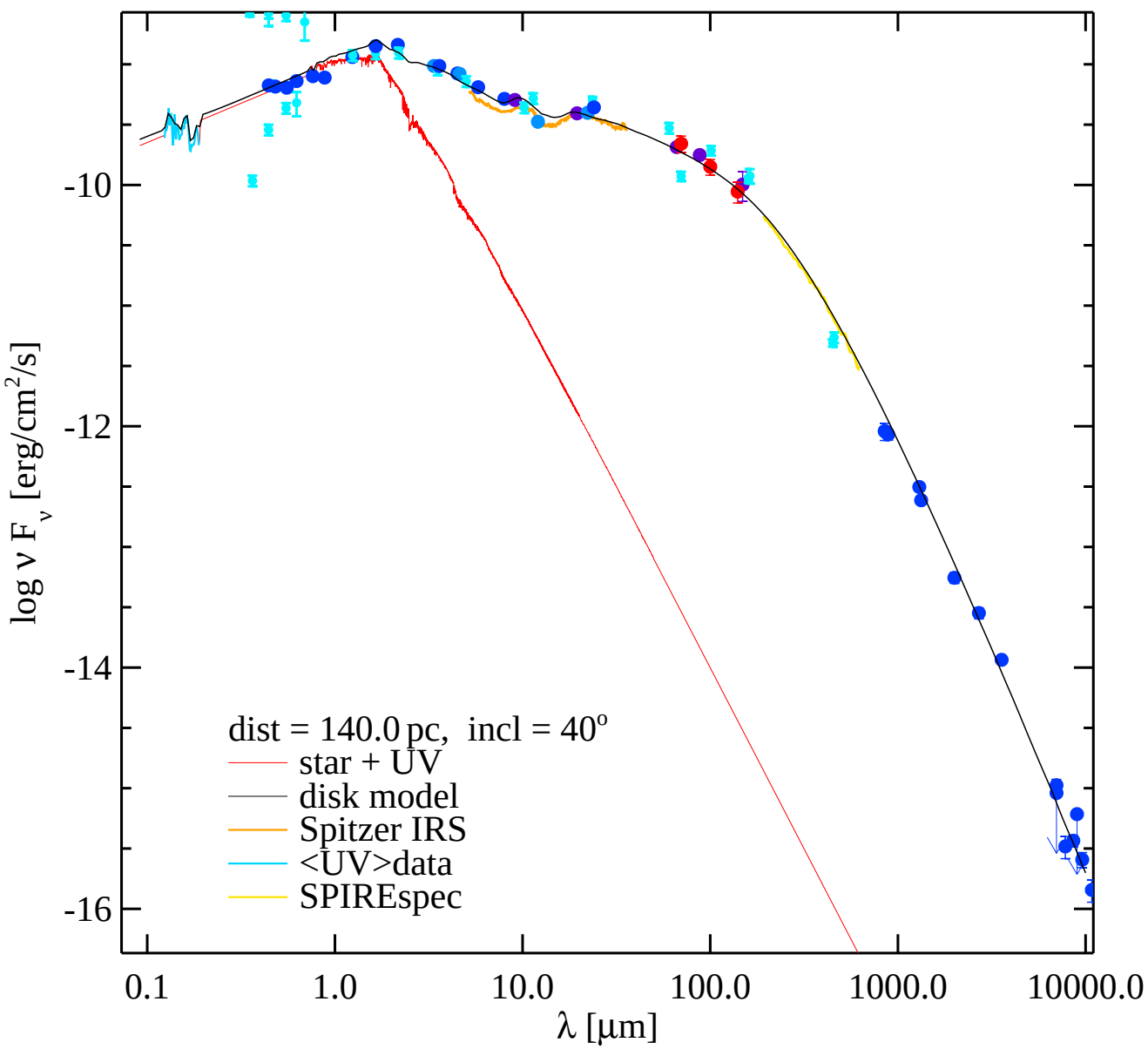

0
2
4
6
8
10
log χ
0.8
0.6
0.4
0.2
0.0
z / r
AV=1
AV=10
AV=1
1
10
100
r [AU]

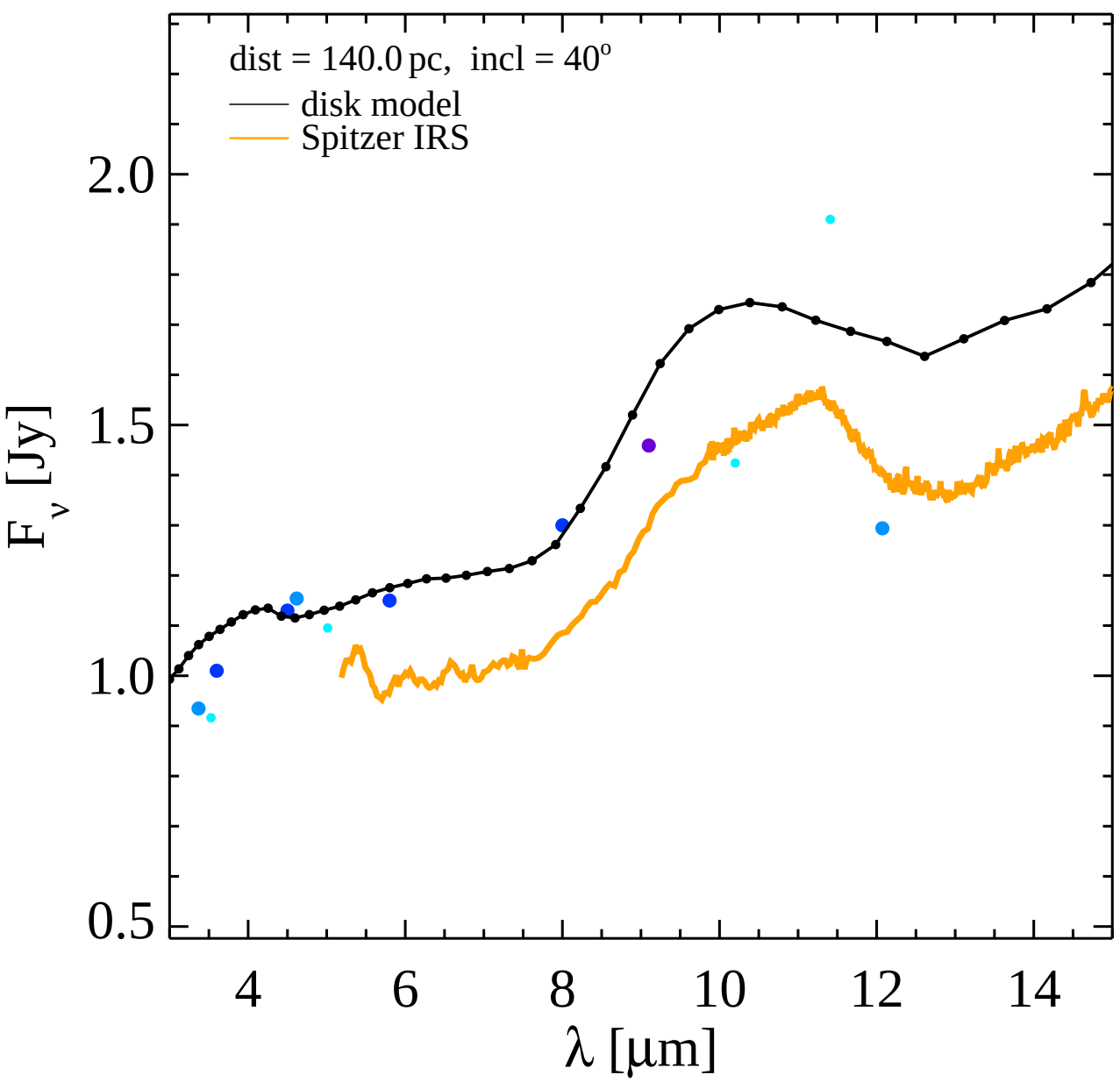


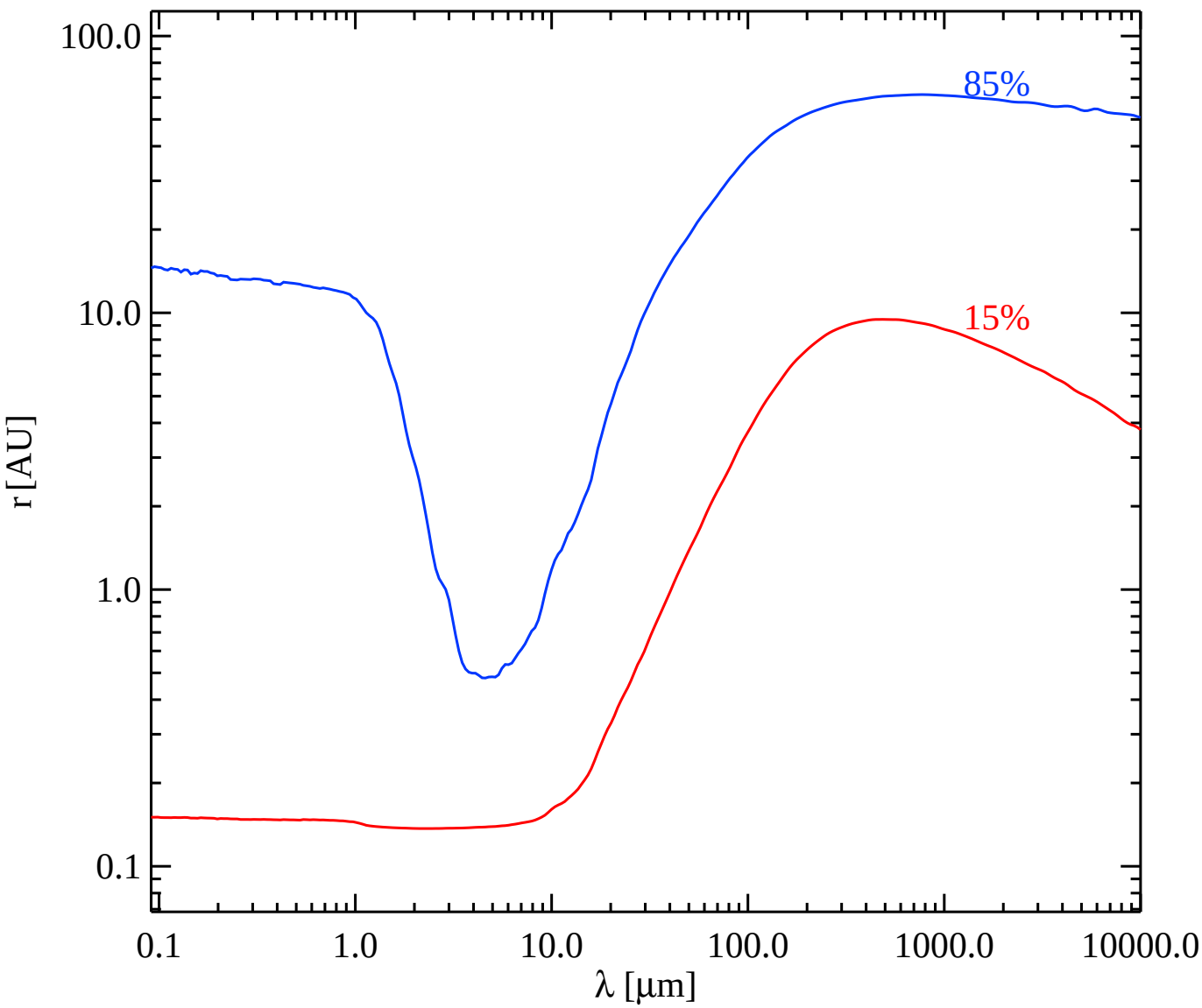
1.0
1.5
2.0
2.5
3.0
log T_dust [K]
0.8
0.6
0.4
0.2
0.0
z / r
1
10
100
r [AU]
700K
300K
100K
40K
20K
1
10

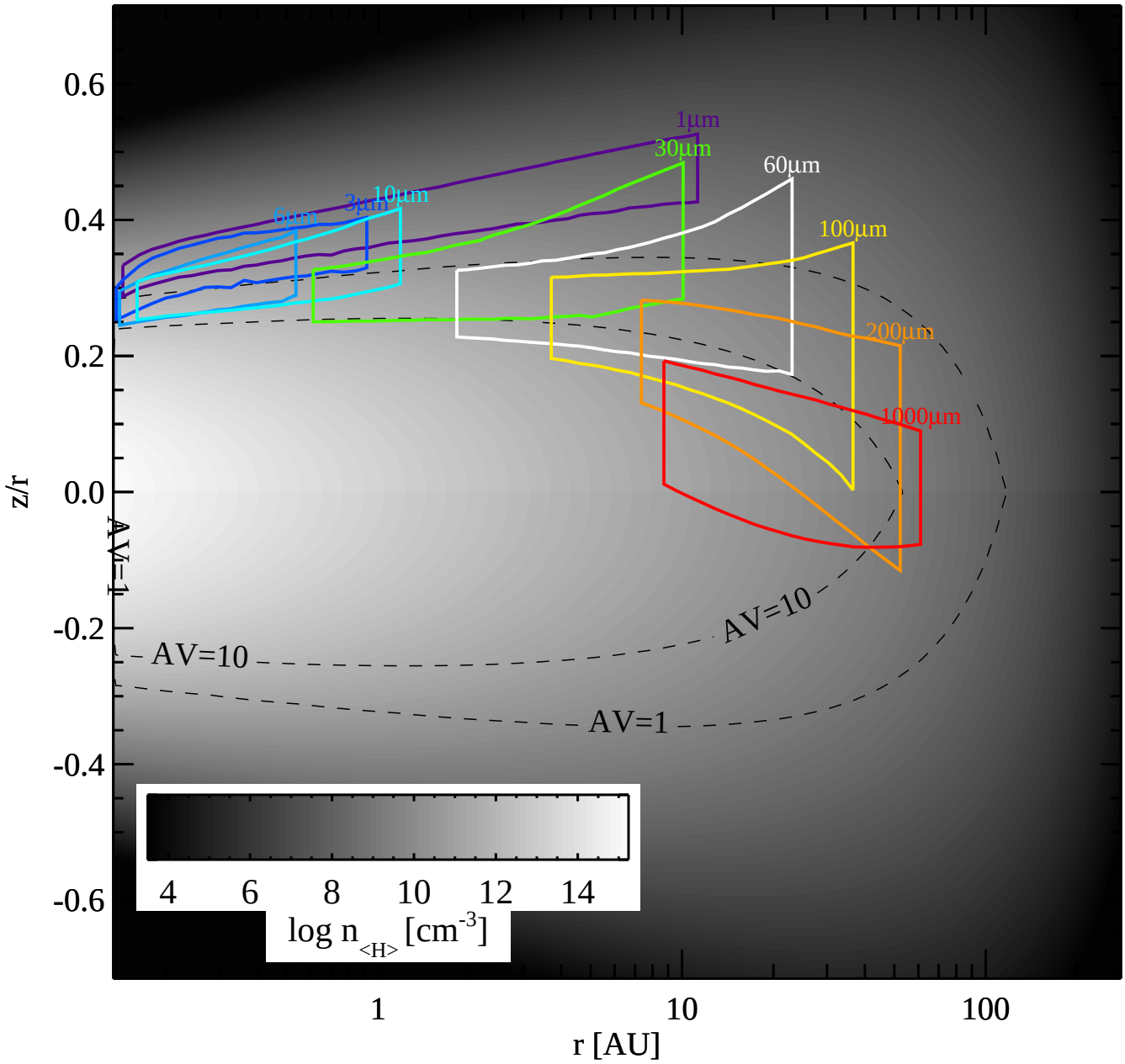

fitting Tdust ~ r^-q
1000
100
10
T dust [K]
1
10
100
r [AU]
z/r=0.75: q= 0.267 +/- 0.005
z/r=0.43: q= 0.331 +/- 0.009
z/r=0.00: q= 0.505 +/- 0.007

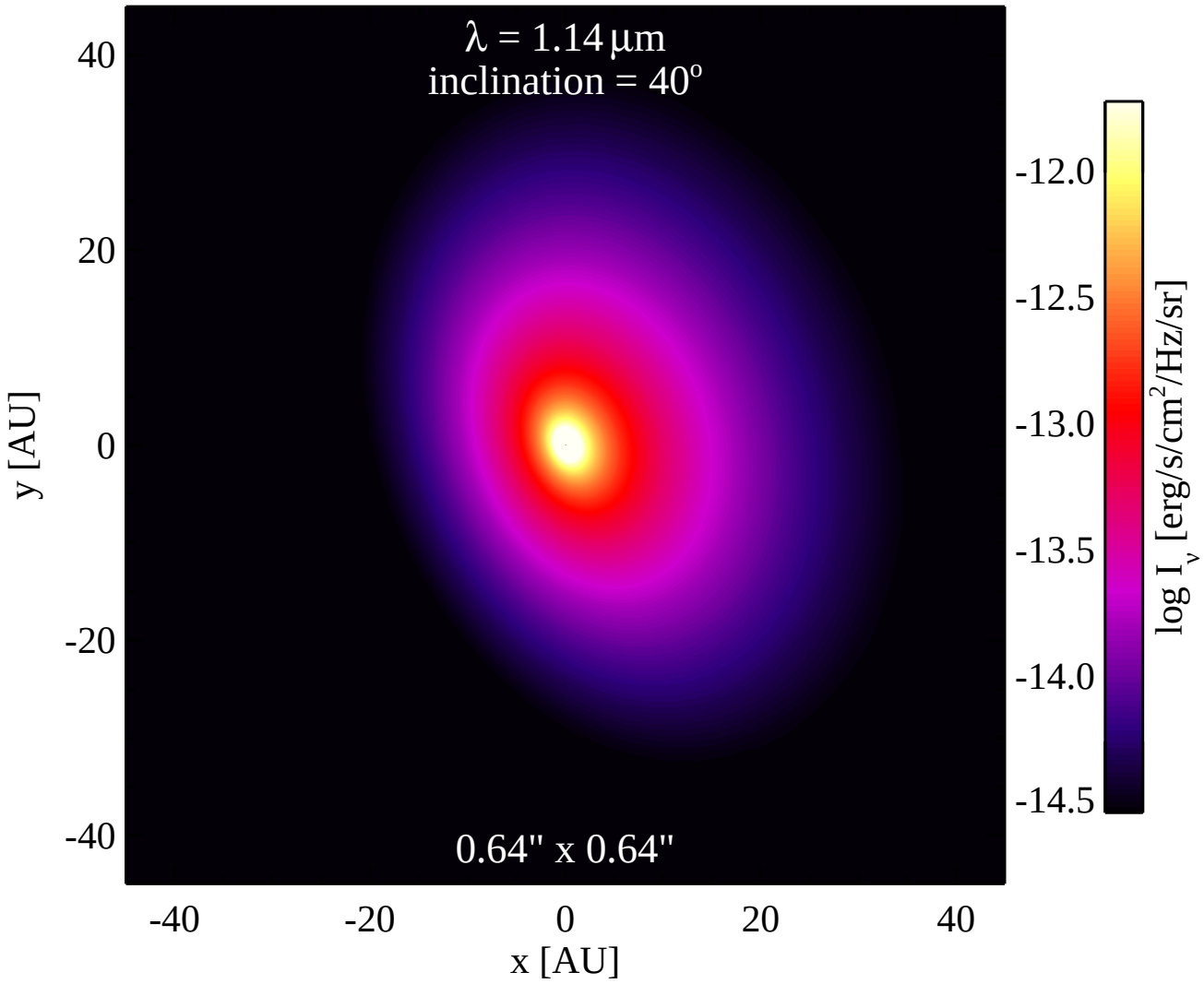

1000
100
10
1
κ [cm²/g(dust)]
κsca
κabs
λ-1
ProDiMo
0.1
1.0
10.0
100.0
1000.0
λ [μm]

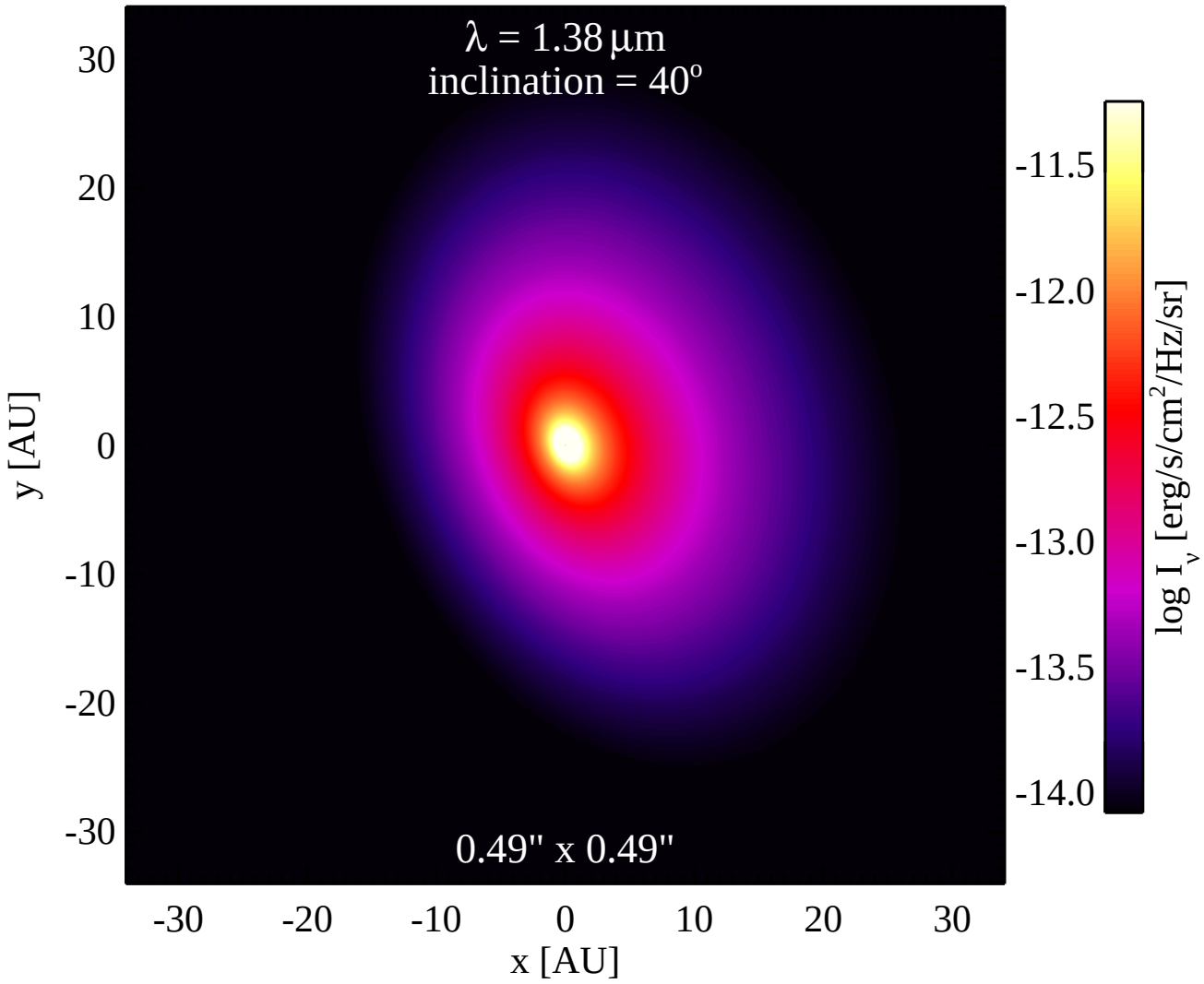

-10
-12
-14
-16
log ν F_ν [erg/cm²/s]
0.1
1.0
10.0
100.0
1000.0
10000.0
λ [μm]
dist = 140.0 pc, incl = 40°
star + UV
disk model
Spitzer IRS
<UV>data
SPIREspec

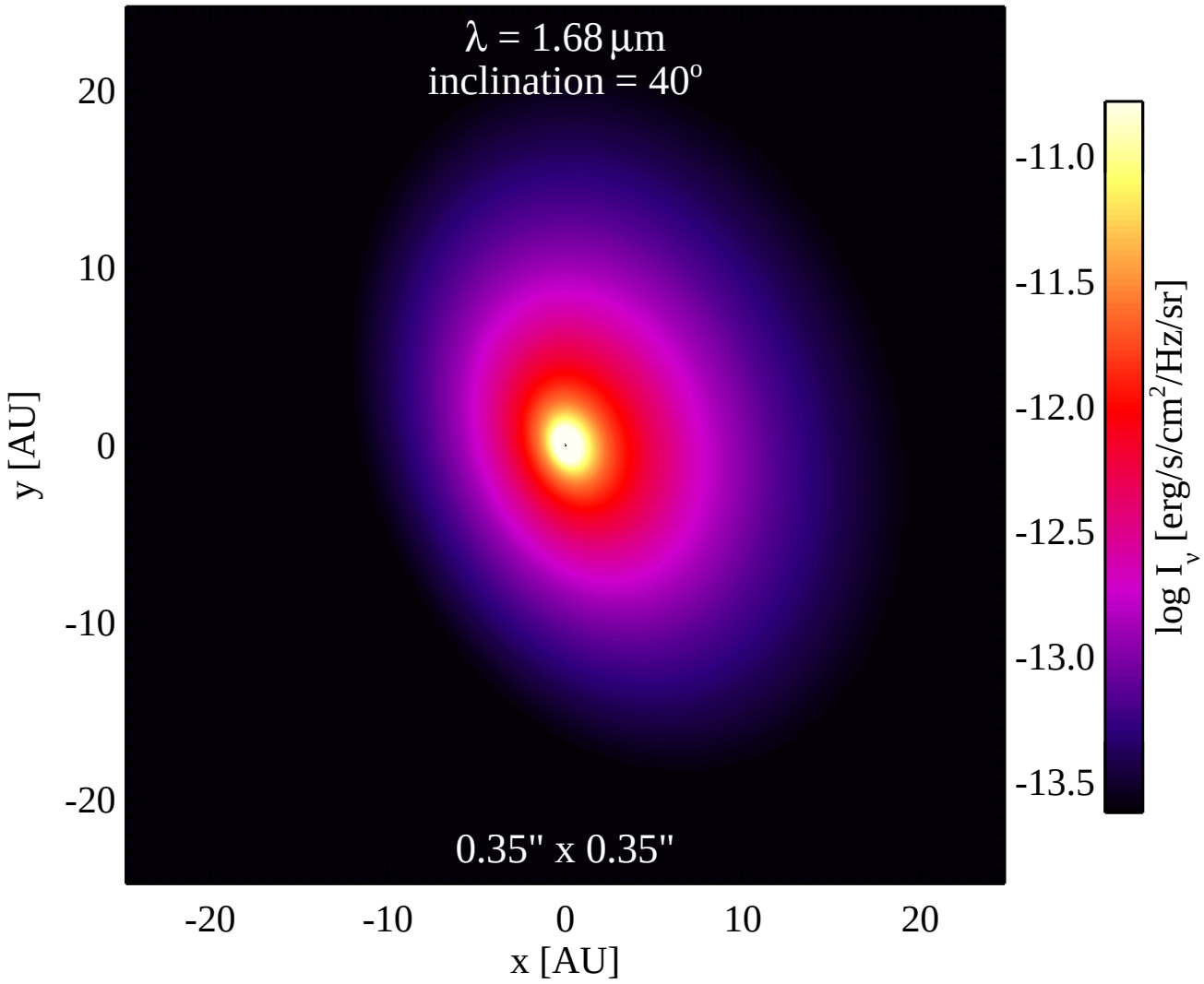

dist = 140.0 pc, incl = 40°
disk model
Spitzer IRS
2.0
1.5
1.0
0.5
F_ν [Jy]
4
6
8
10
12
14
λ [μm]

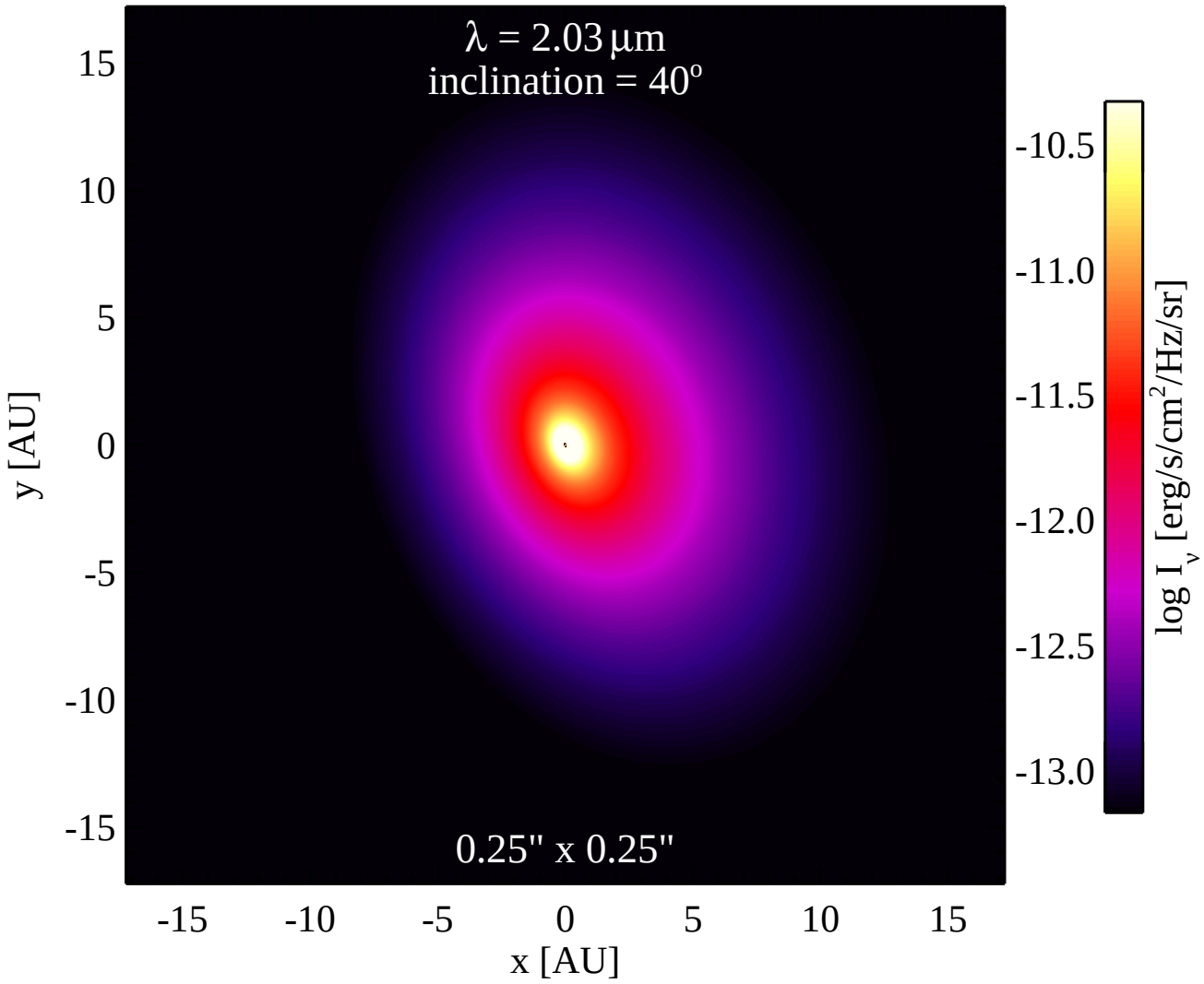

100.0
10.0
1.0
0.1
r [AU]
85%
15%
0.1
1.0
10.0
100.0
1000.0
10000.0
λ [μm]

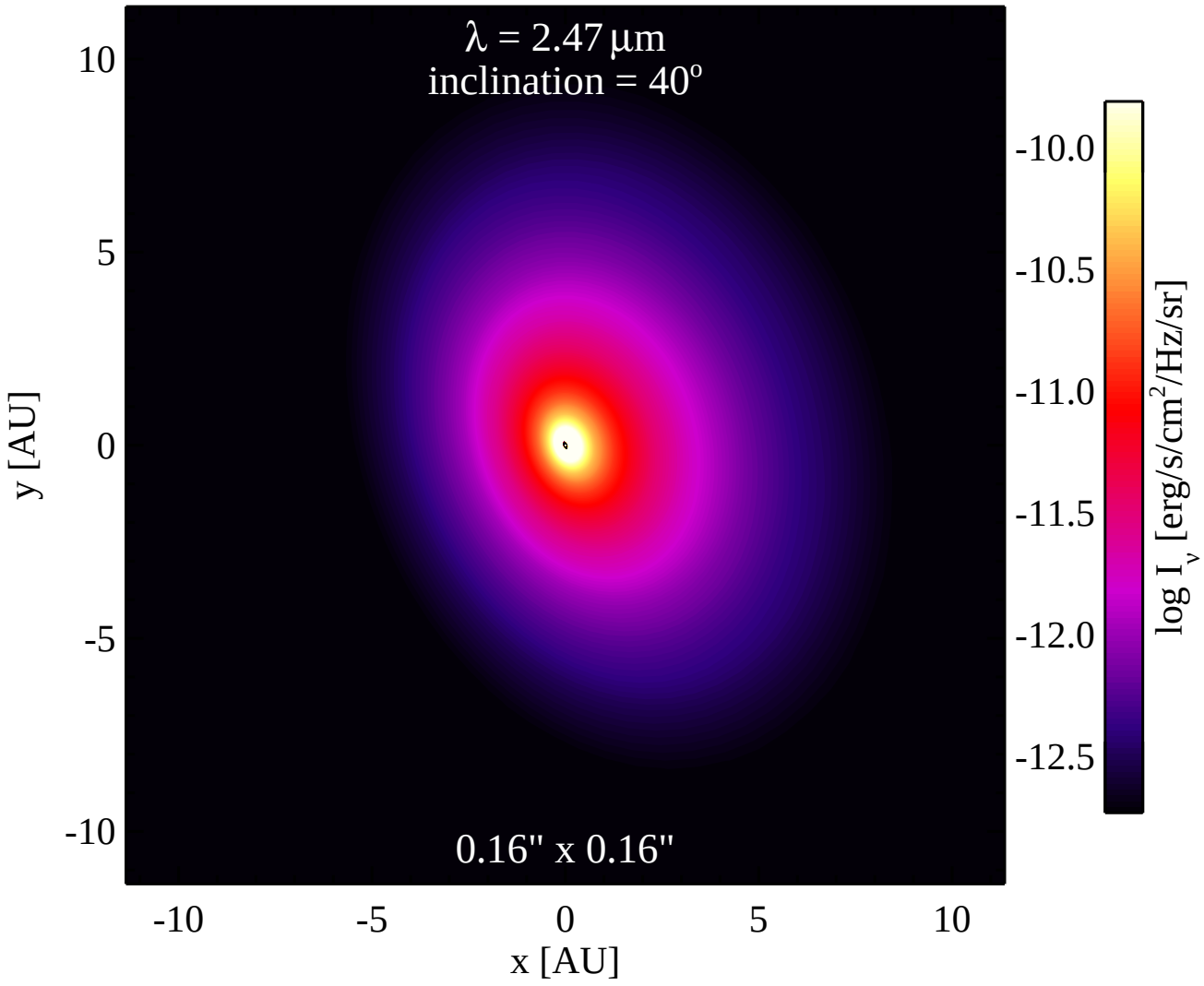

0.6
0.4
0.2
0.0
-0.2
-0.4
-0.6
z/r
1µm
30µm
60µm
3µm
10µm
6µm
100µm
200µm
1000µm
AV=1
AV=10
AV=10
AV=1
4
6
8
10
12
14
log n <H> [cm-3]
1
10
100
r [AU]

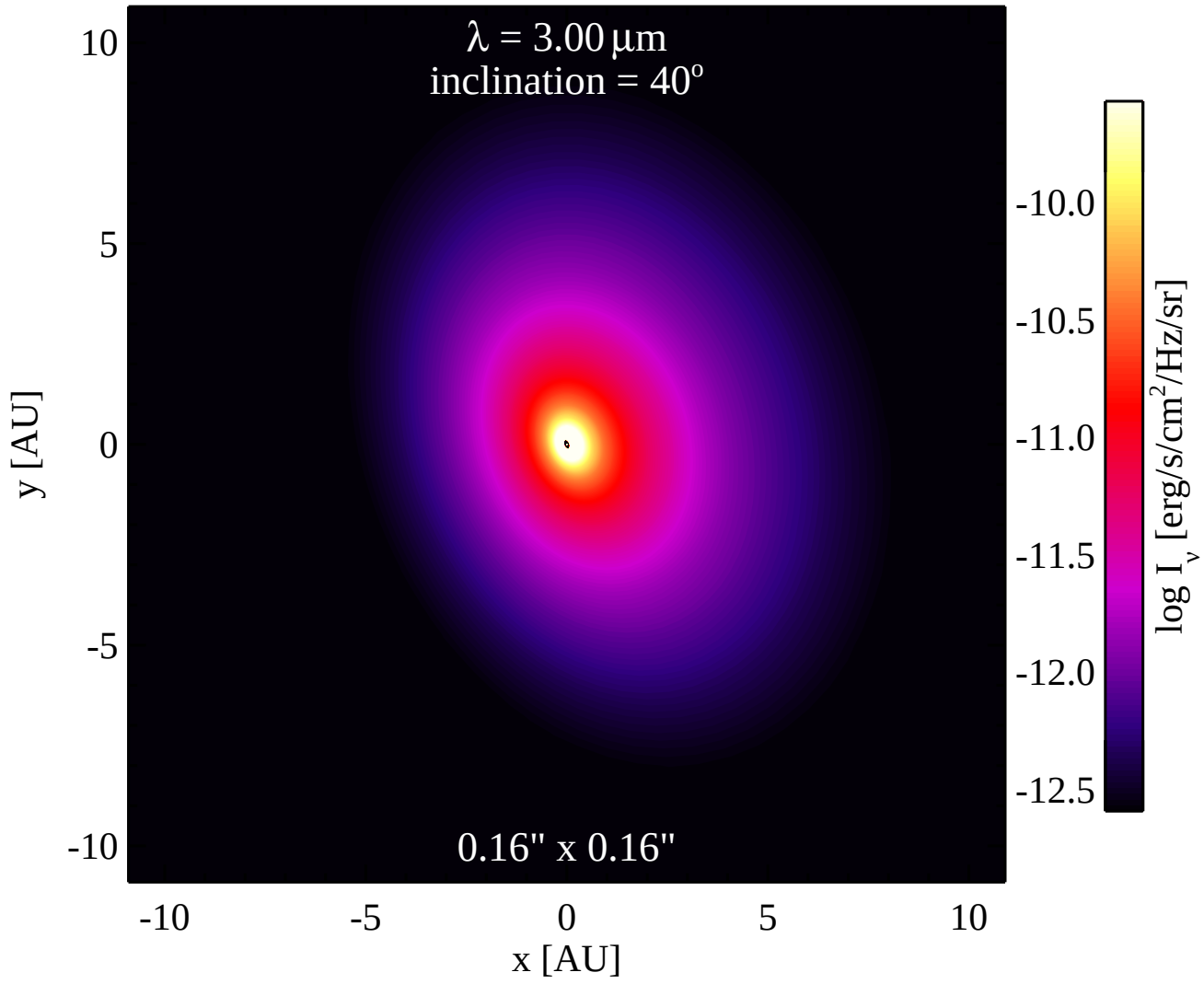

λ = 1.14 μm
inclination = 40°
0.64" x 0.64"
40
20
0
-20
-40
y [AU]
-40
-20
0
20
40
x [AU]
-12.0
-12.5
-13.0
-13.5
-14.0
-14.5
log I_ν [erg/s/cm²/Hz/sr]

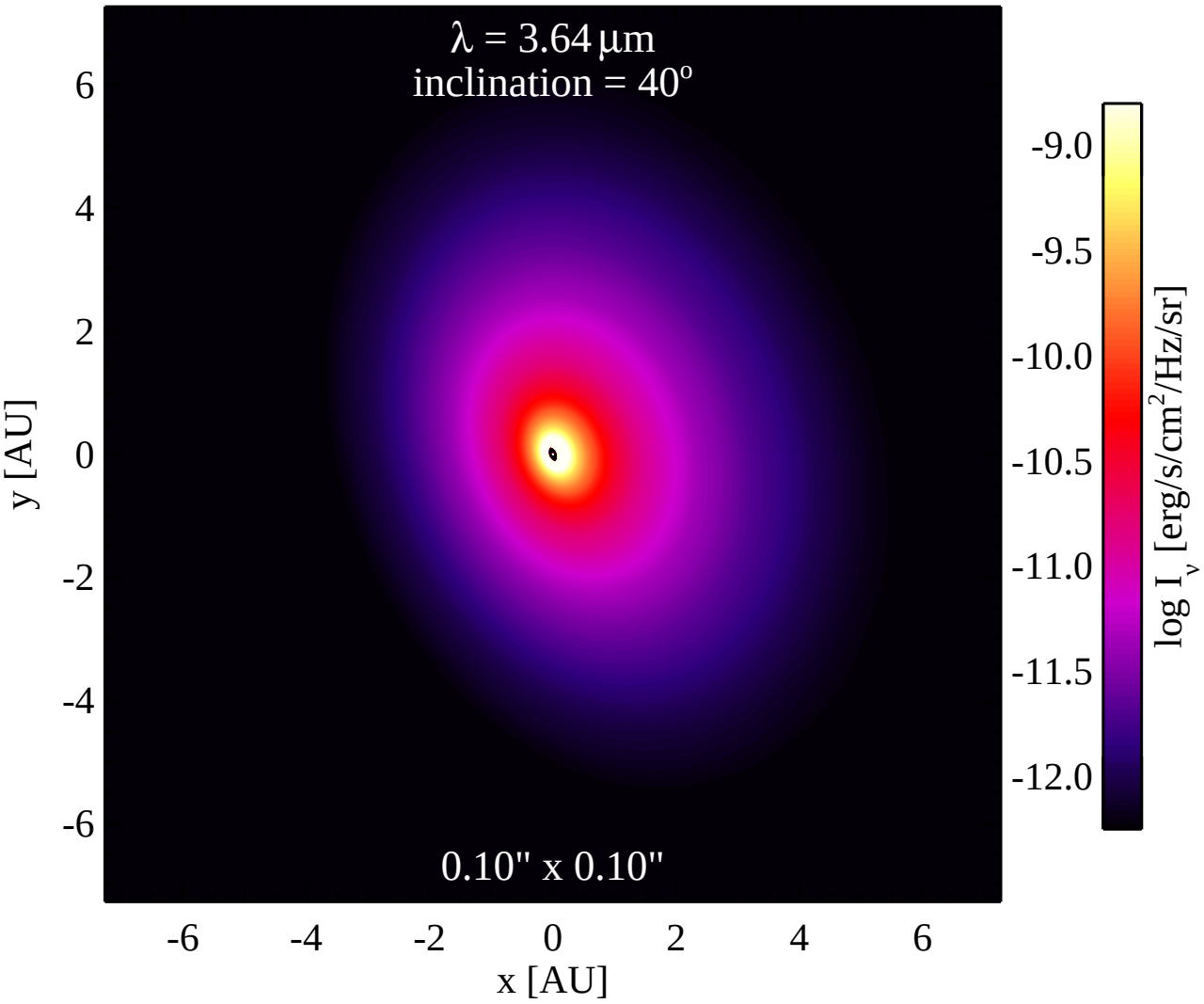

λ = 1.38 μm
inclination = 40°
0.49" x 0.49"
30
20
10
0
-10
-20
-30
y [AU]
-30
-20
-10
0
10
20
30
x [AU]
-11.5
-12.0
-12.5
-13.0
-13.5
-14.0
log I_ν [erg/s/cm²/Hz/sr]

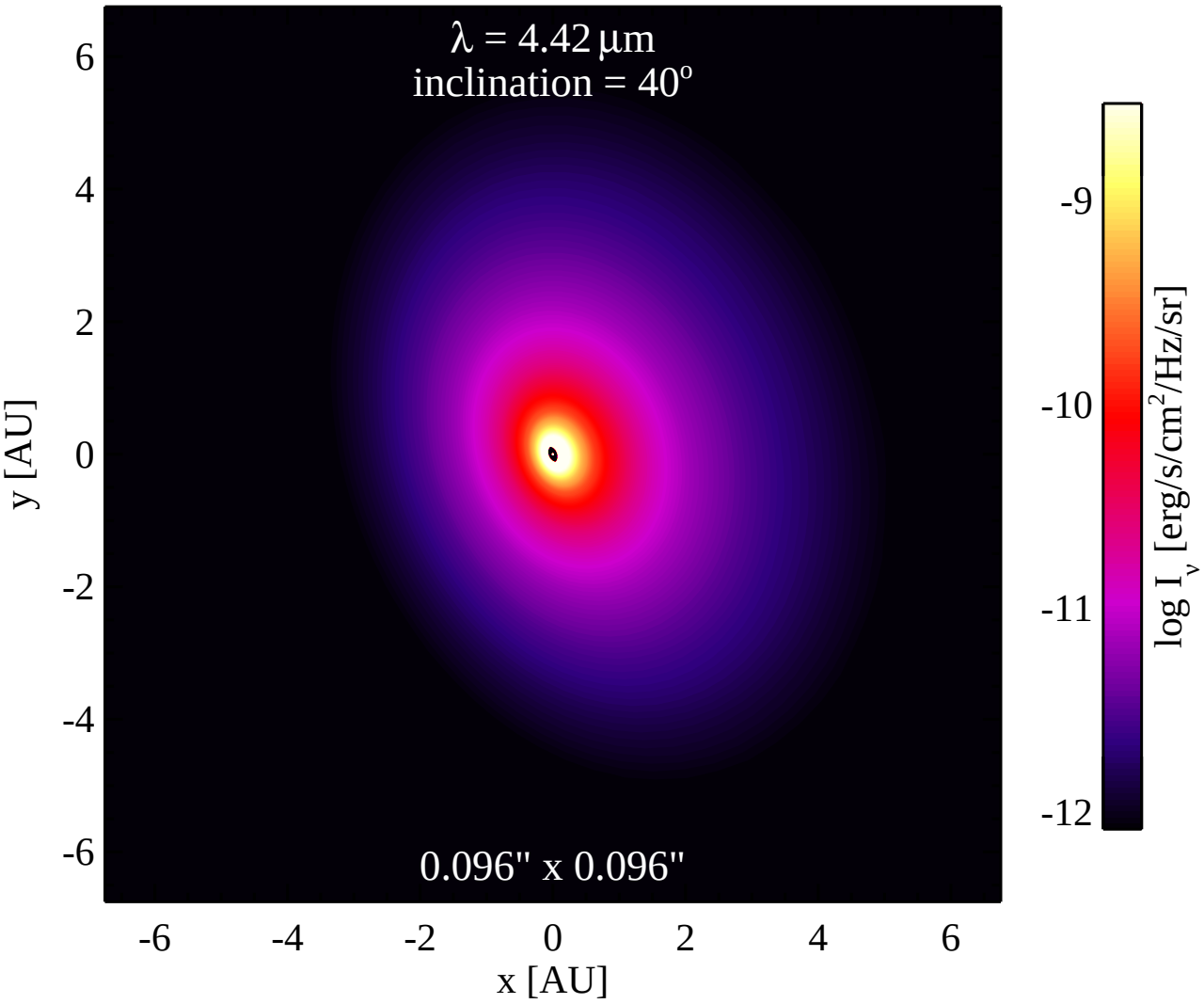

λ = 1.68 μm
inclination = 40°
0.35" x 0.35"
20
10
0
-10
-20
y [AU]
-20
-10
0
10
20
x [AU]
-11.0
-11.5
-12.0
-12.5
-13.0
-13.5
log I_ν [erg/s/cm²/Hz/sr]

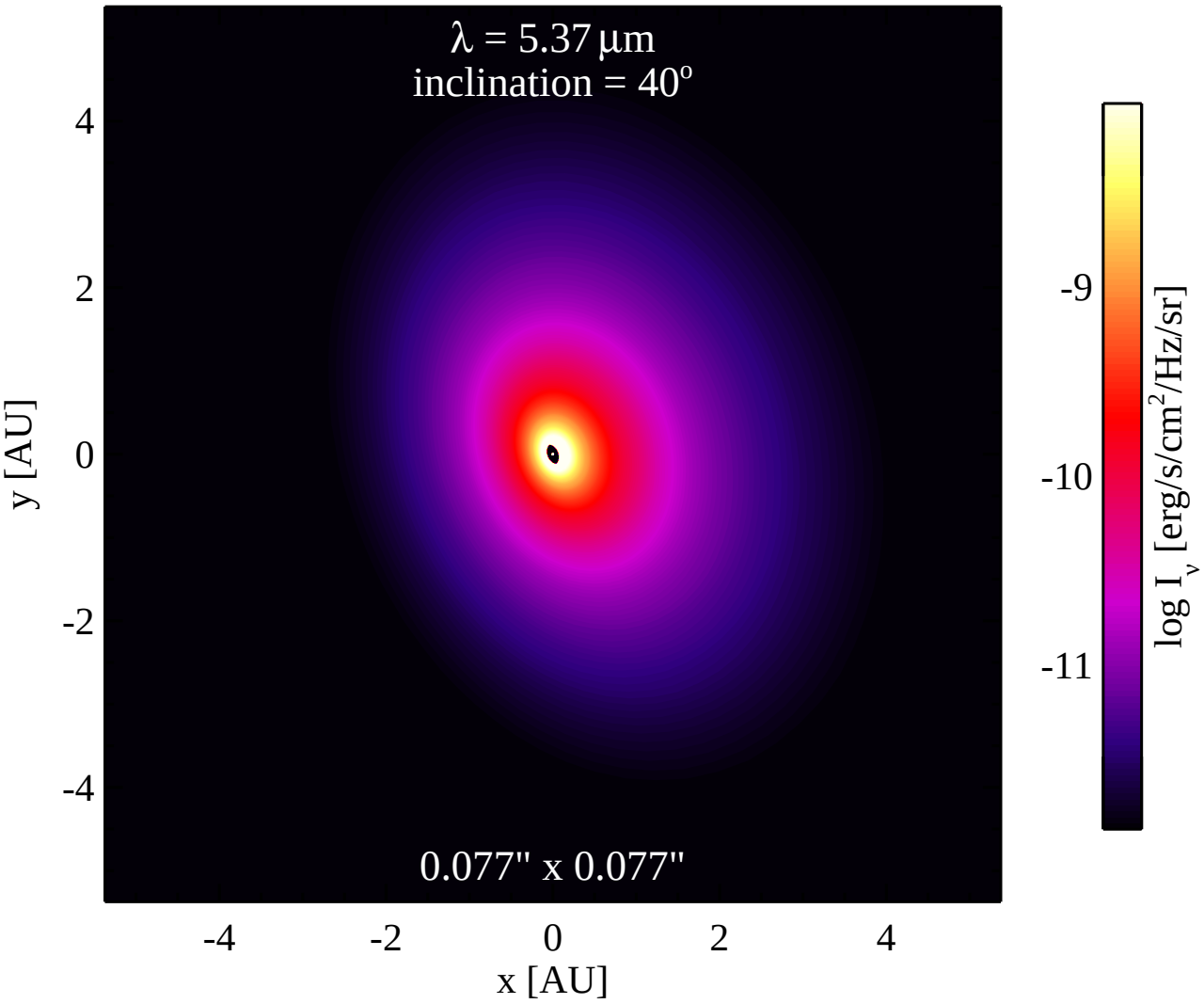

λ = 2.03 μm
inclination = 40°
0.25" x 0.25"
15
10
5
0
-5
-10
-15
y [AU]
-15
-10
-5
0
5
10
15
x [AU]
-10.5
-11.0
-11.5
-12.0
-12.5
-13.0
log I_ν [erg/s/cm²/Hz/sr]

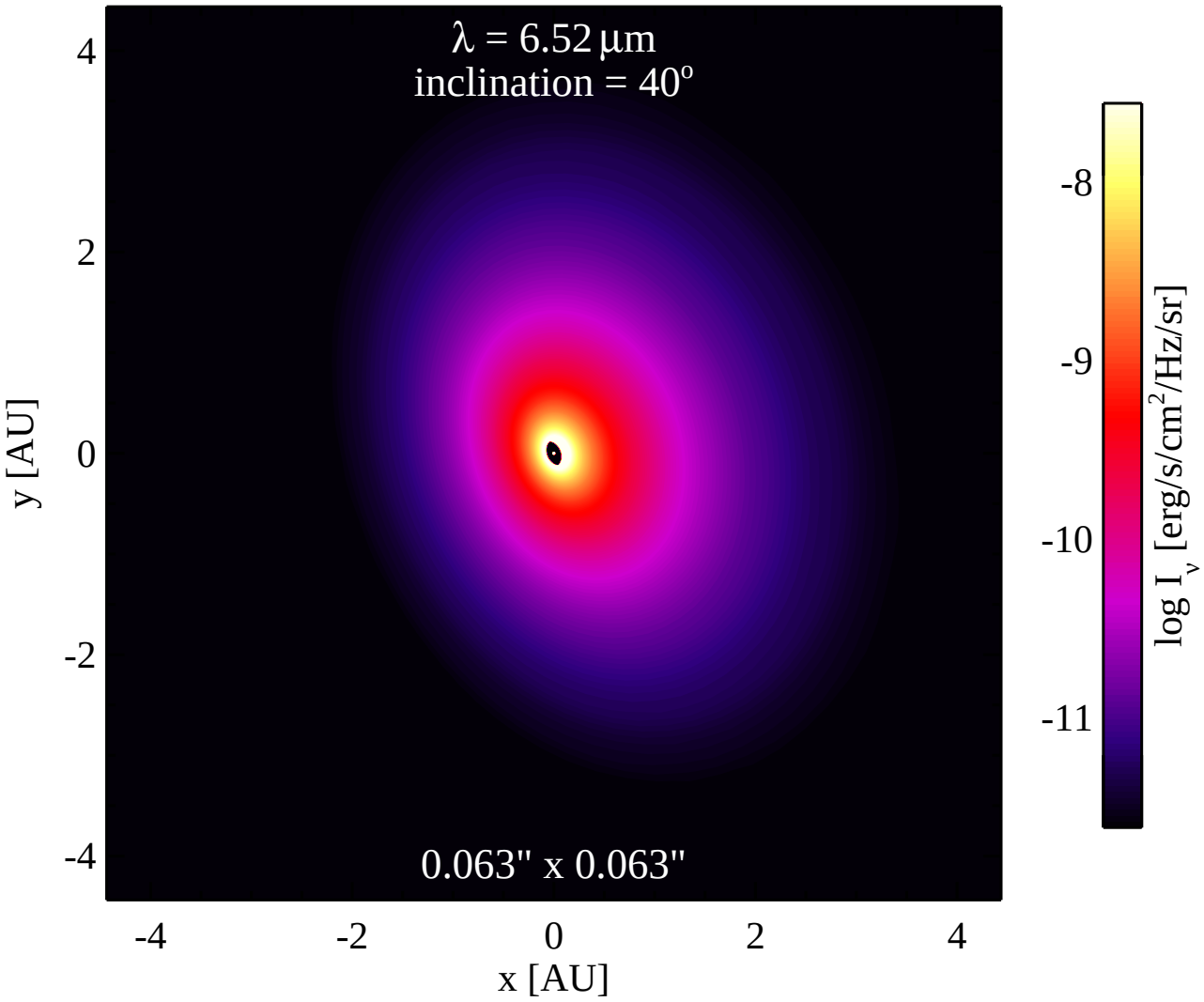

λ = 2.47 μm
inclination = 40°
0.16" x 0.16"
10
5
0
-5
-10
y [AU]
-10
-5
0
5
10
x [AU]
-10.0
-10.5
-11.0
-11.5
-12.0
-12.5
log I_ν [erg/s/cm²/Hz/sr]

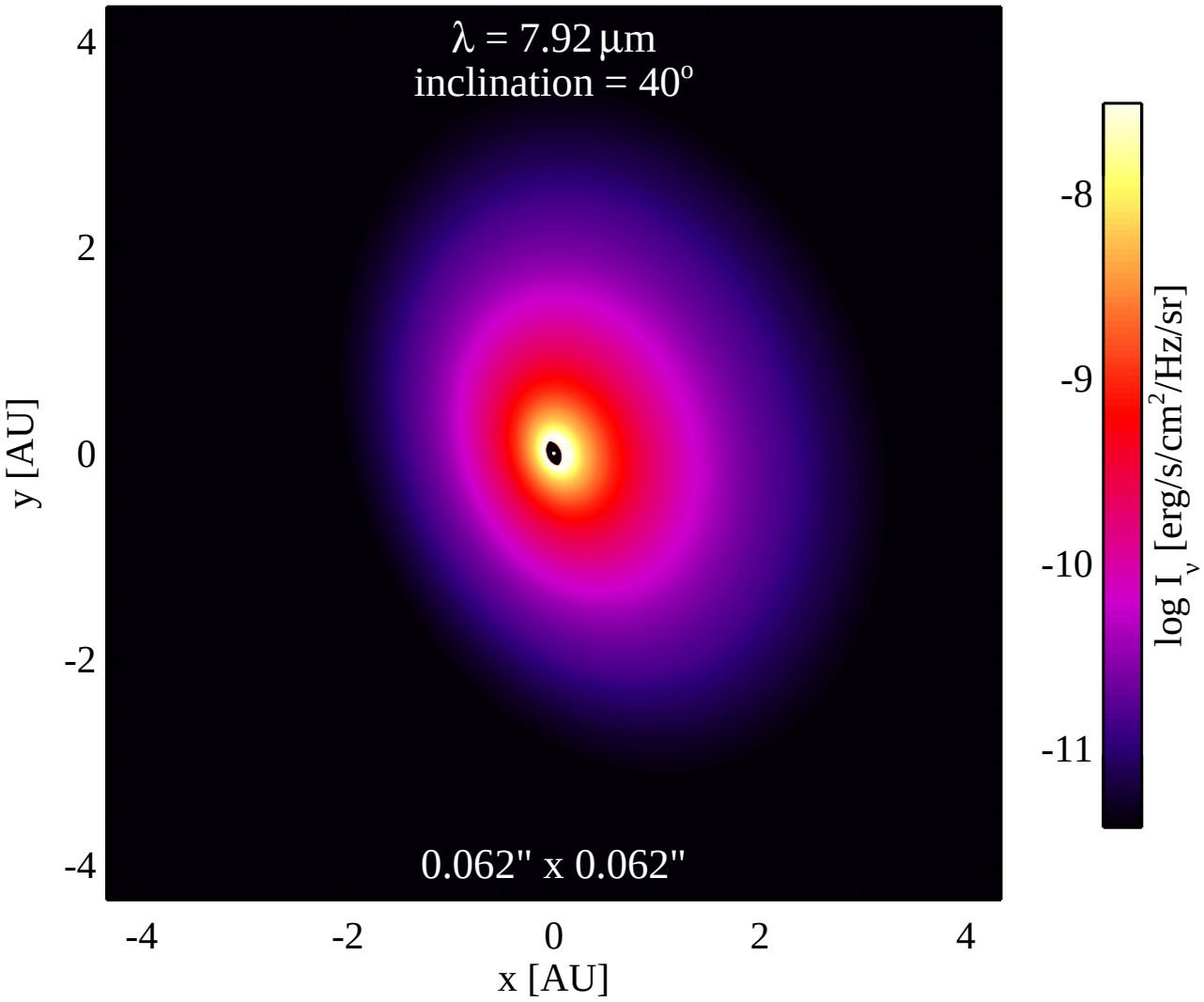

λ = 3.00 μm
inclination = 40°
0.16" x 0.16"
10
5
0
-5
-10
y [AU]
-10
-5
0
5
10
x [AU]
-10.0
-10.5
-11.0
-11.5
-12.0
-12.5
log I_ν [erg/s/cm²/Hz/sr]

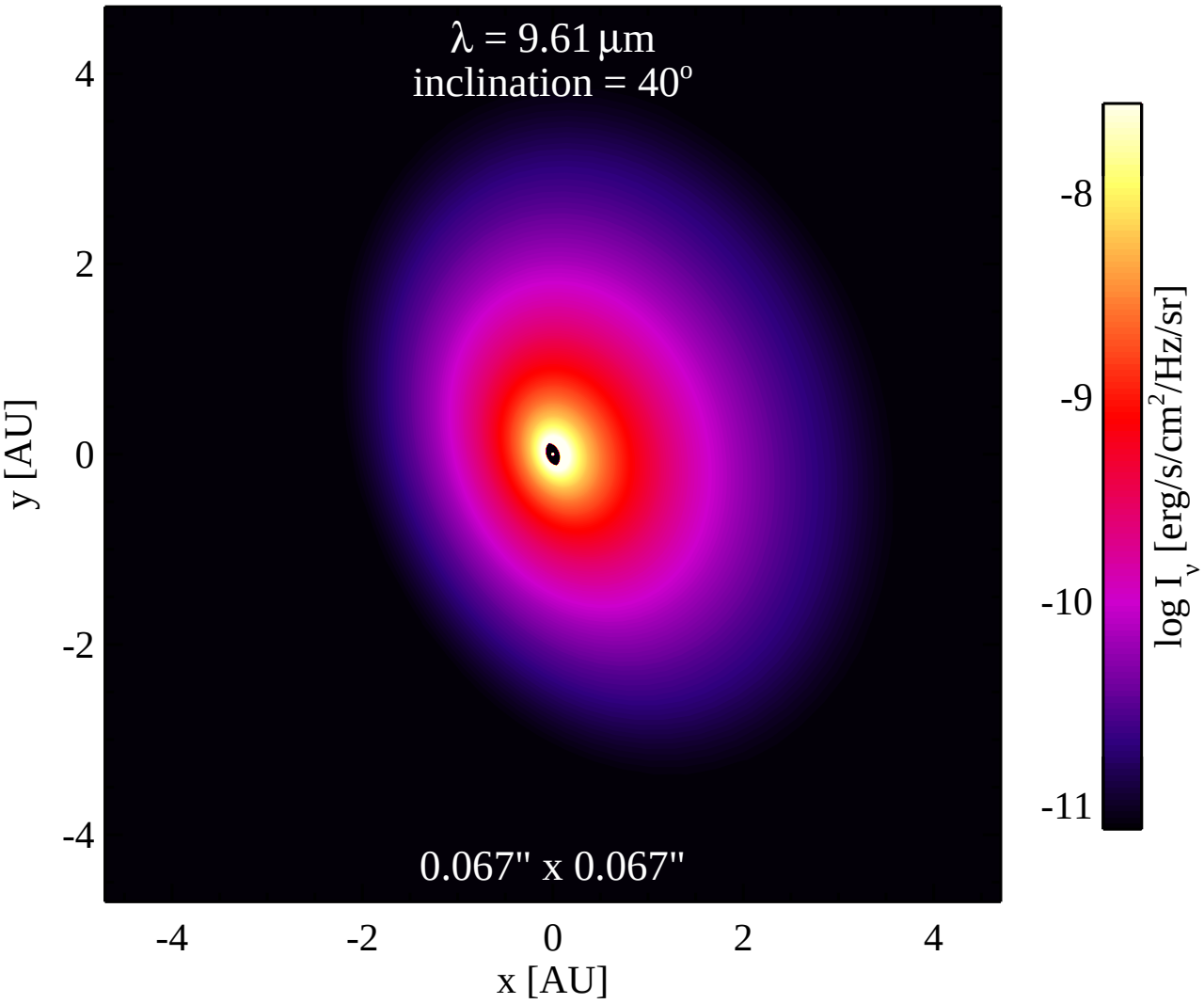

λ = 3.64 μm
inclination = 40°
0.10" x 0.10"
y [AU]
x [AU]
6
4
2
0
-2
-4
-6
-6
-4
-2
0
2
4
6
-9.0
-9.5
-10.0
-10.5
-11.0
-11.5
-12.0
log I_ν [erg/s/cm²/Hz/sr]

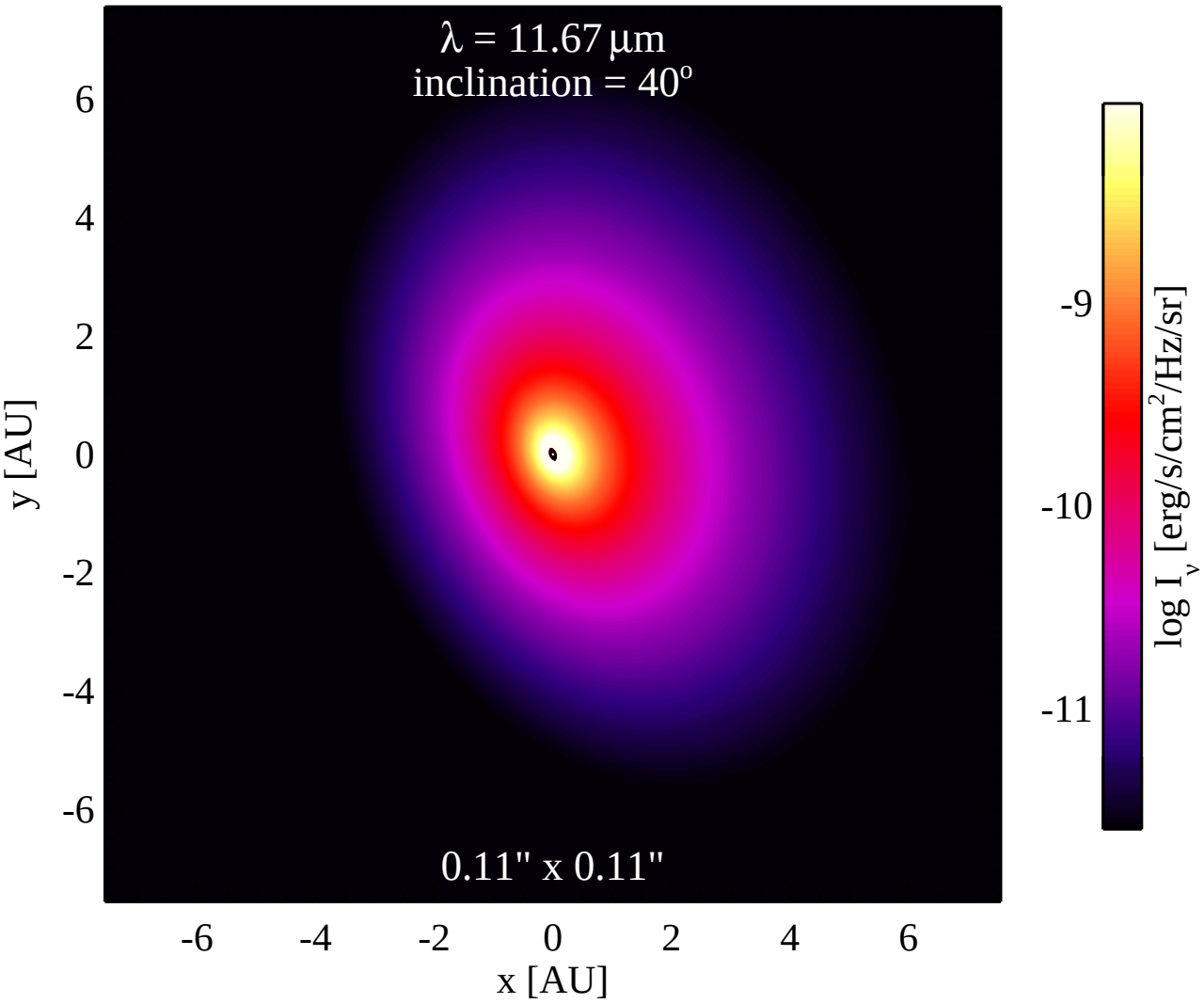

λ = 4.42 μm
inclination = 40°
0.096" x 0.096"
y [AU]
x [AU]
6
4
2
0
-2
-4
-6
-6
-4
-2
0
2
4
6
-9
-10
-11
-12
log I_ν [erg/s/cm²/Hz/sr]

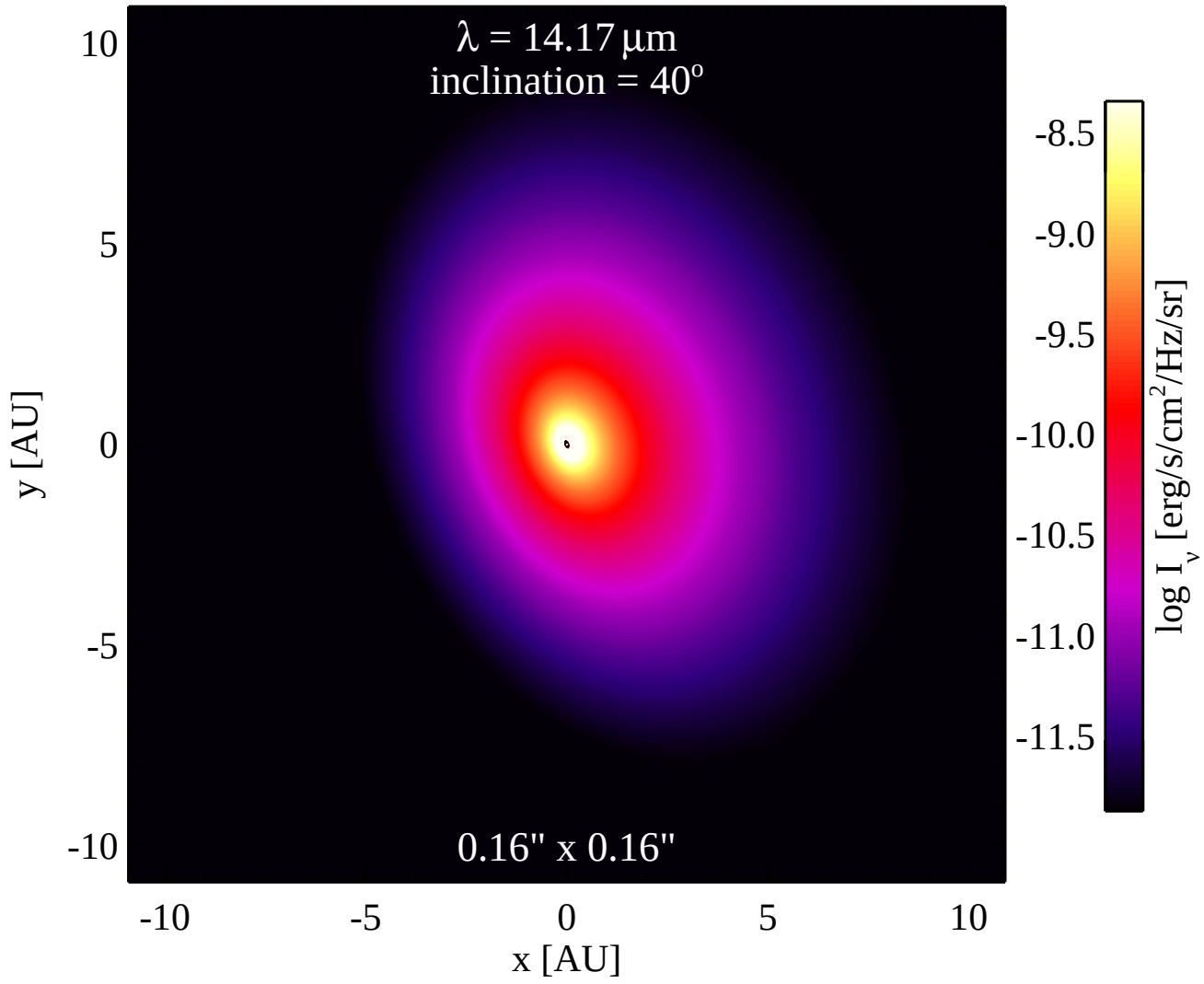

λ = 5.37 μm
inclination = 40°
0.077" x 0.077"
y [AU]
x [AU]
4
2
0
-2
-4
-4
-2
0
2
4
-9
-10
-11
log I_ν [erg/s/cm²/Hz/sr]

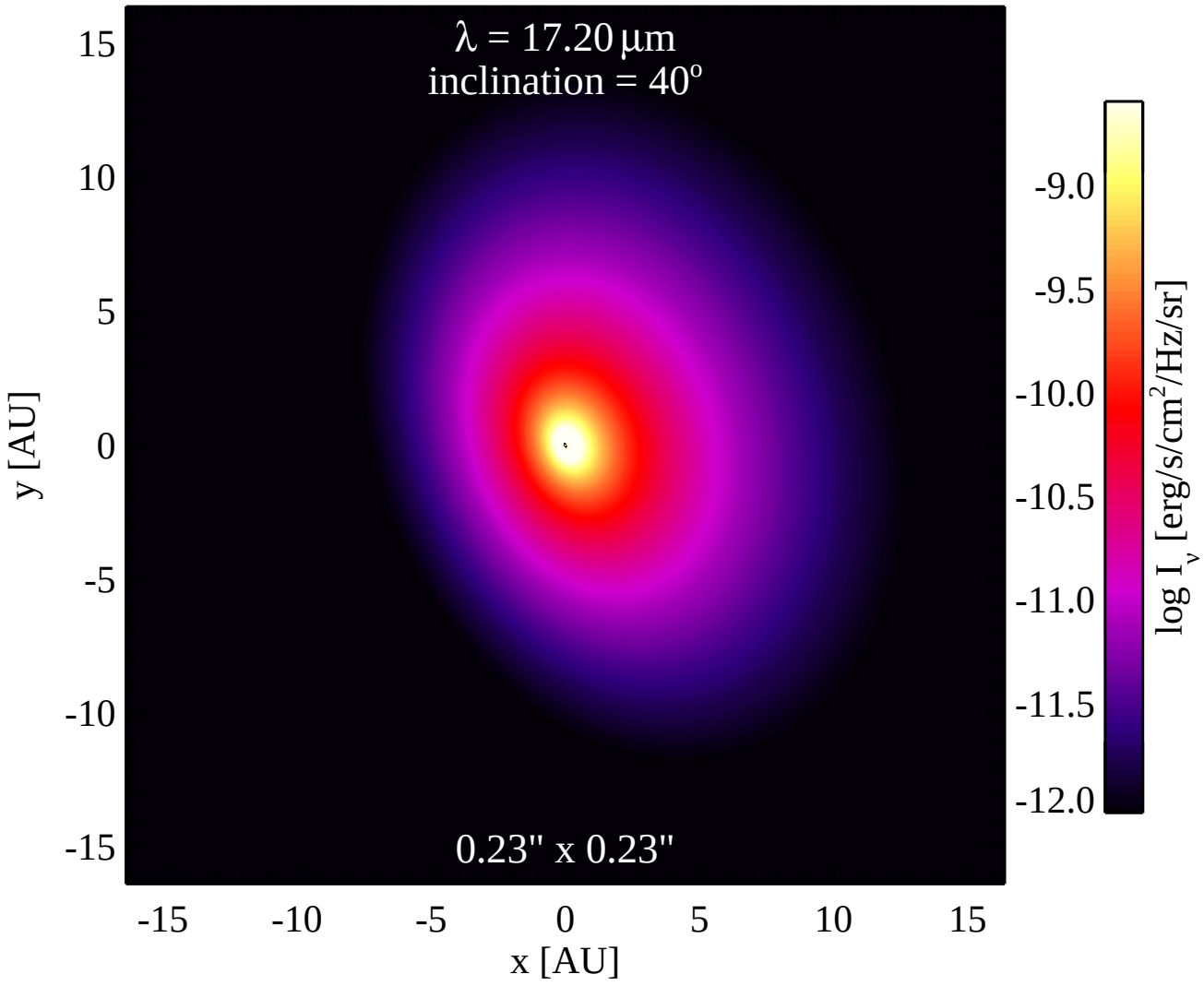

λ = 6.52 μm
inclination = 40°
0.063" x 0.063"
y [AU]
x [AU]
4
2
0
-2
-4
-4
-2
0
2
4
-8
-9
-10
-11
log I_ν [erg/s/cm²/Hz/sr]

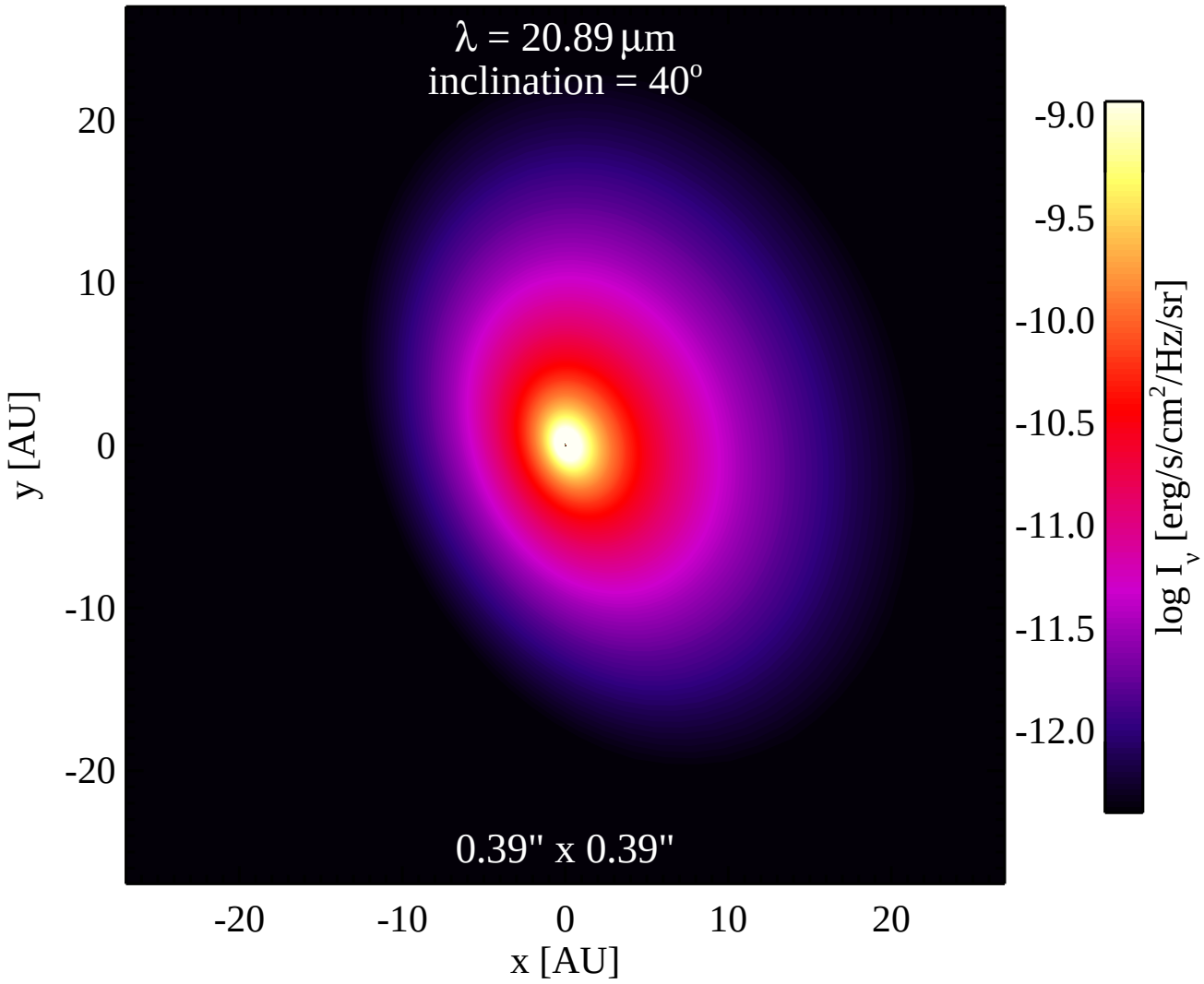

λ = 7.92 μm
inclination = 40°
0.062" x 0.062"
y [AU]
x [AU]
4
2
0
-2
-4
-4
-2
0
2
4
log I_ν [erg/s/cm²/Hz/sr]
-8
-9
-10
-11

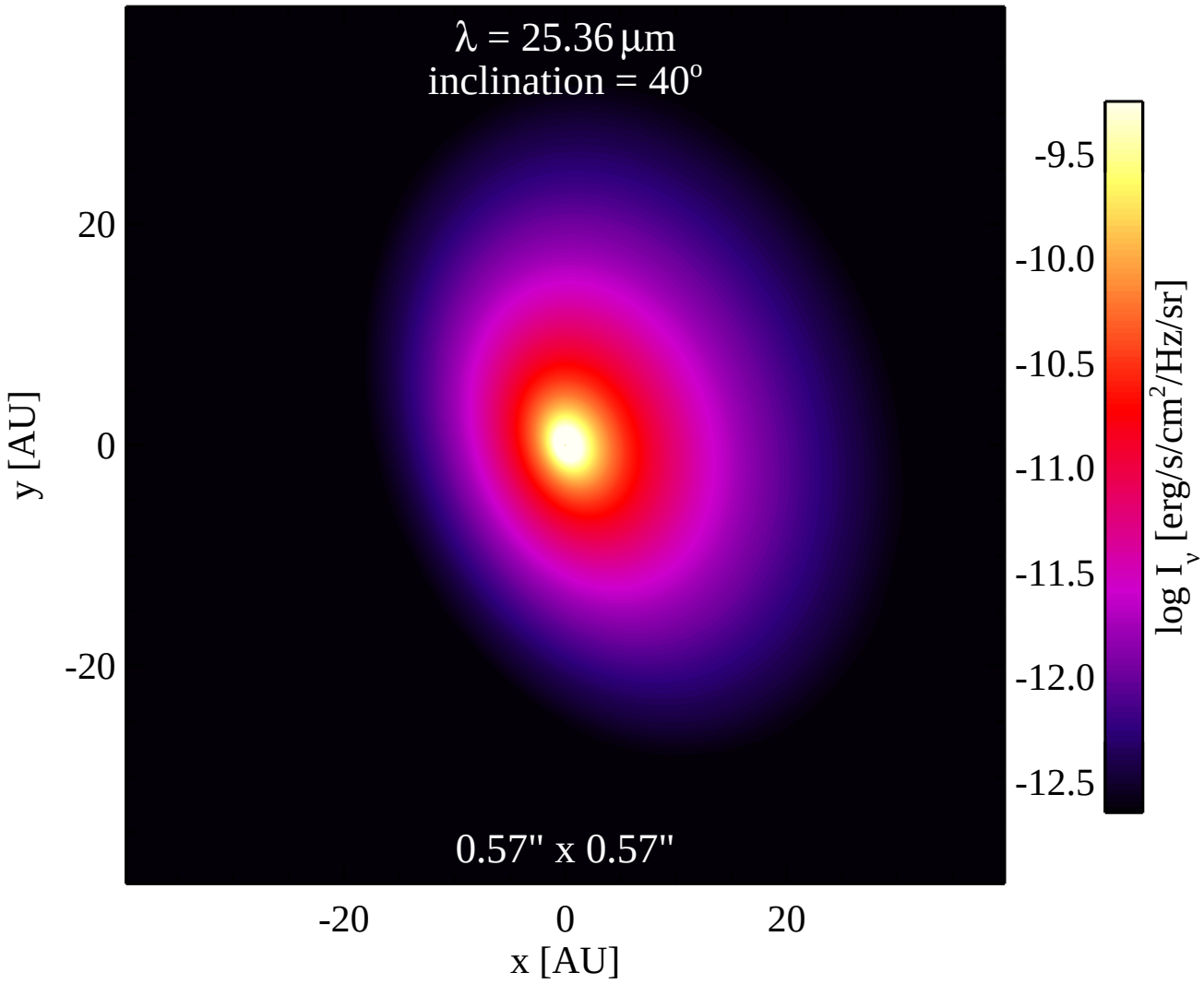

λ = 9.61 μm
inclination = 40°
0.067" x 0.067"
y [AU]
x [AU]
4
2
0
-2
-4
-4
-2
0
2
4
log I_ν [erg/s/cm²/Hz/sr]
-8
-9
-10
-11

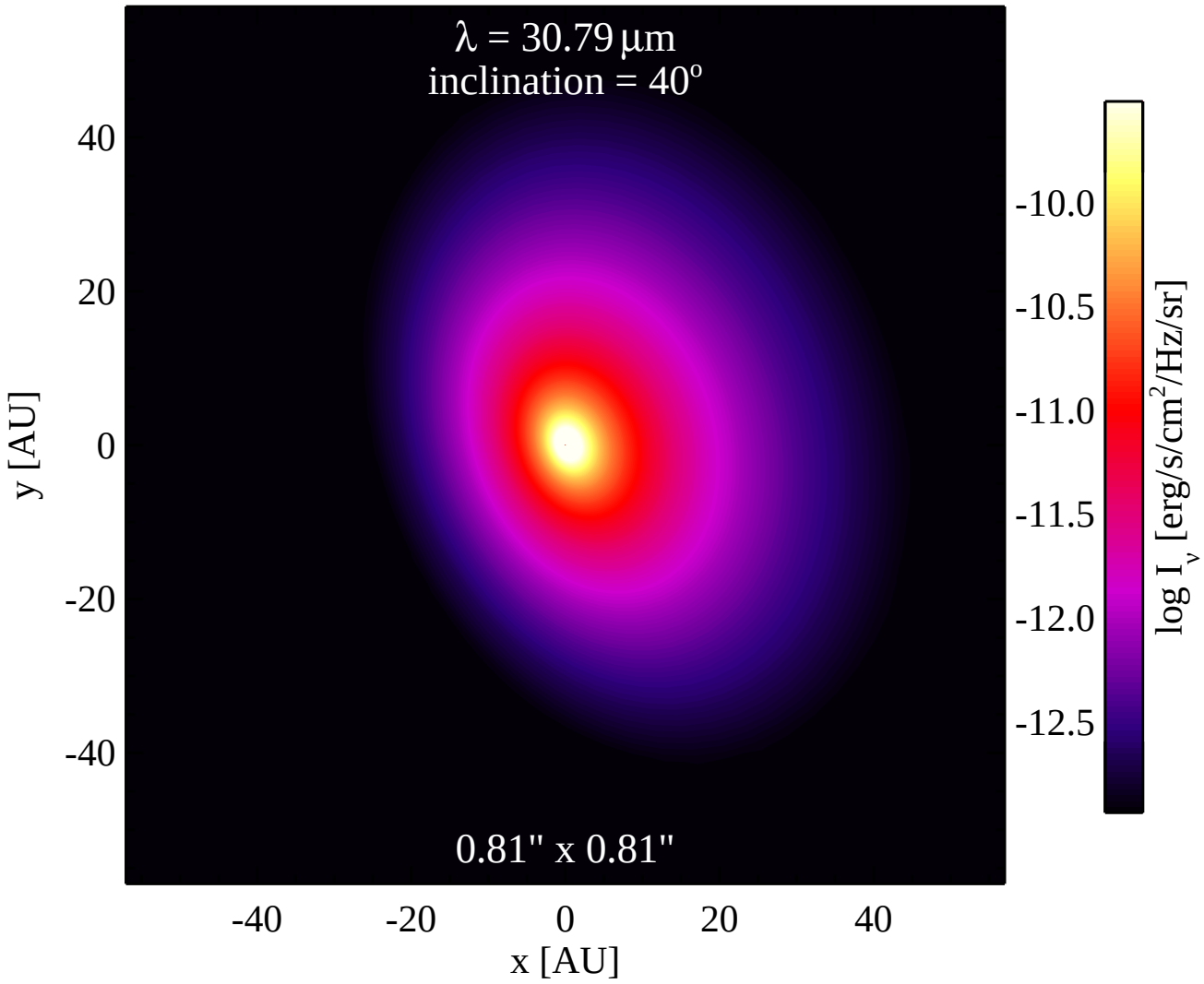

λ = 11.67 μm
inclination = 40°
0.11" x 0.11"
y [AU]
x [AU]
6
4
2
0
-2
-4
-6
-6
-4
-2
0
2
4
6
-9
-10
-11
log I_ν [erg/s/cm²/Hz/sr]

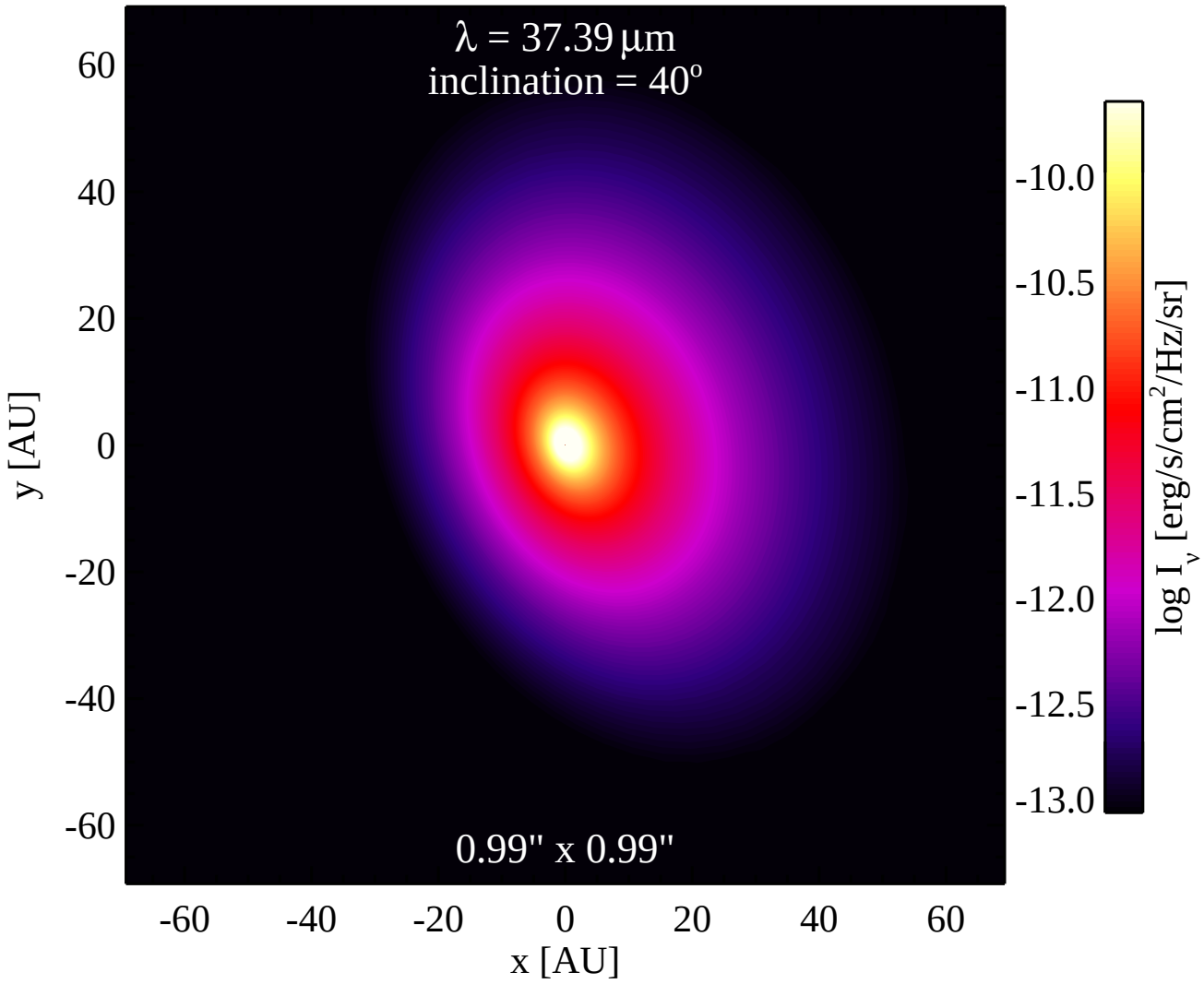

λ = 14.17 μm
inclination = 40°
0.16" x 0.16"
10
5
0
-5
-10
y [AU]
-10
-5
0
5
10
x [AU]
-8.5
-9.0
-9.5
-10.0
-10.5
-11.0
-11.5
log I_ν [erg/s/cm²/Hz/sr]

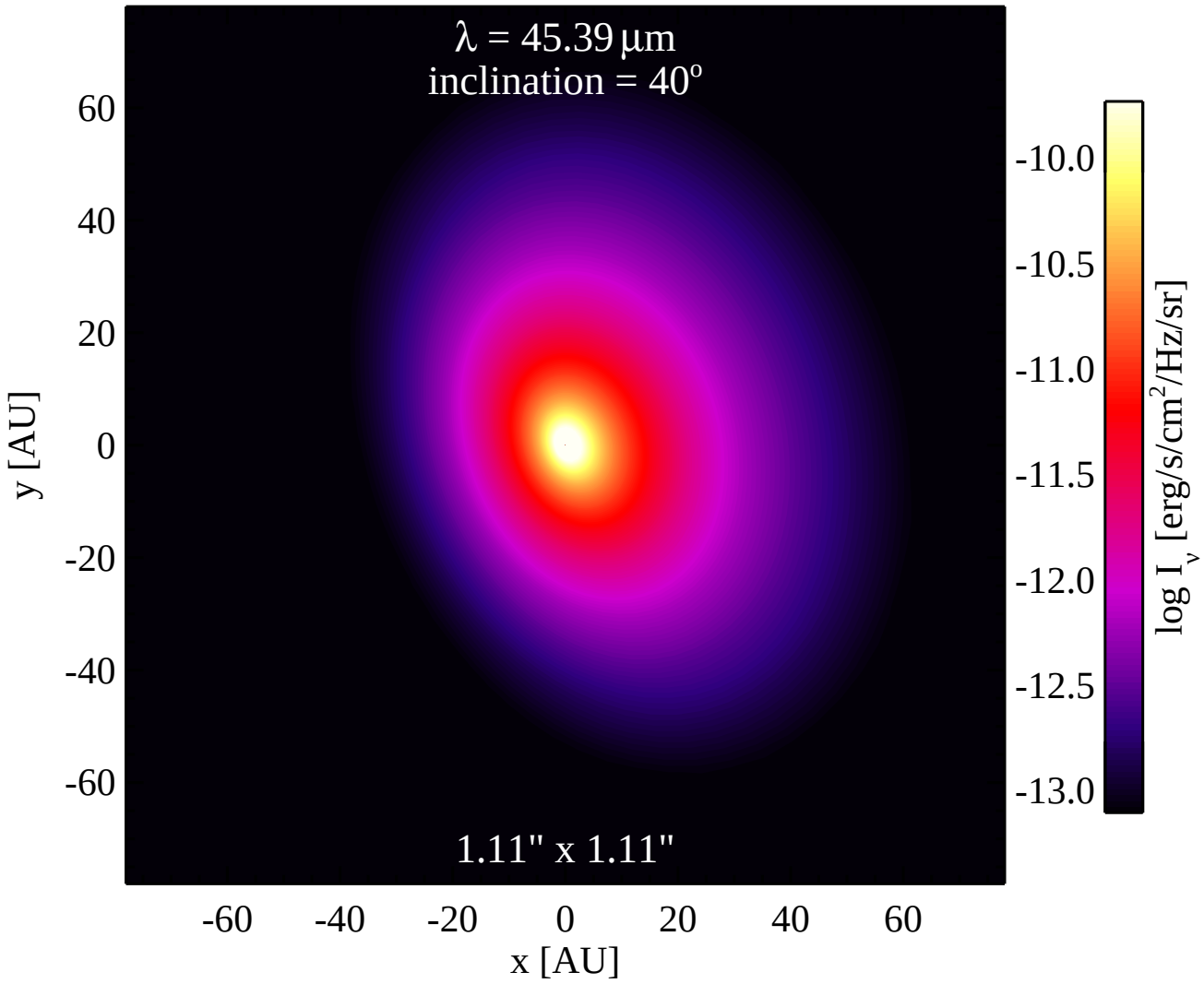

λ = 17.20 μm
inclination = 40°
0.23" x 0.23"
15
10
5
0
-5
-10
-15
y [AU]
-15
-10
-5
0
5
10
15
x [AU]
-9.0
-9.5
-10.0
-10.5
-11.0
-11.5
-12.0
log I_ν [erg/s/cm²/Hz/sr]

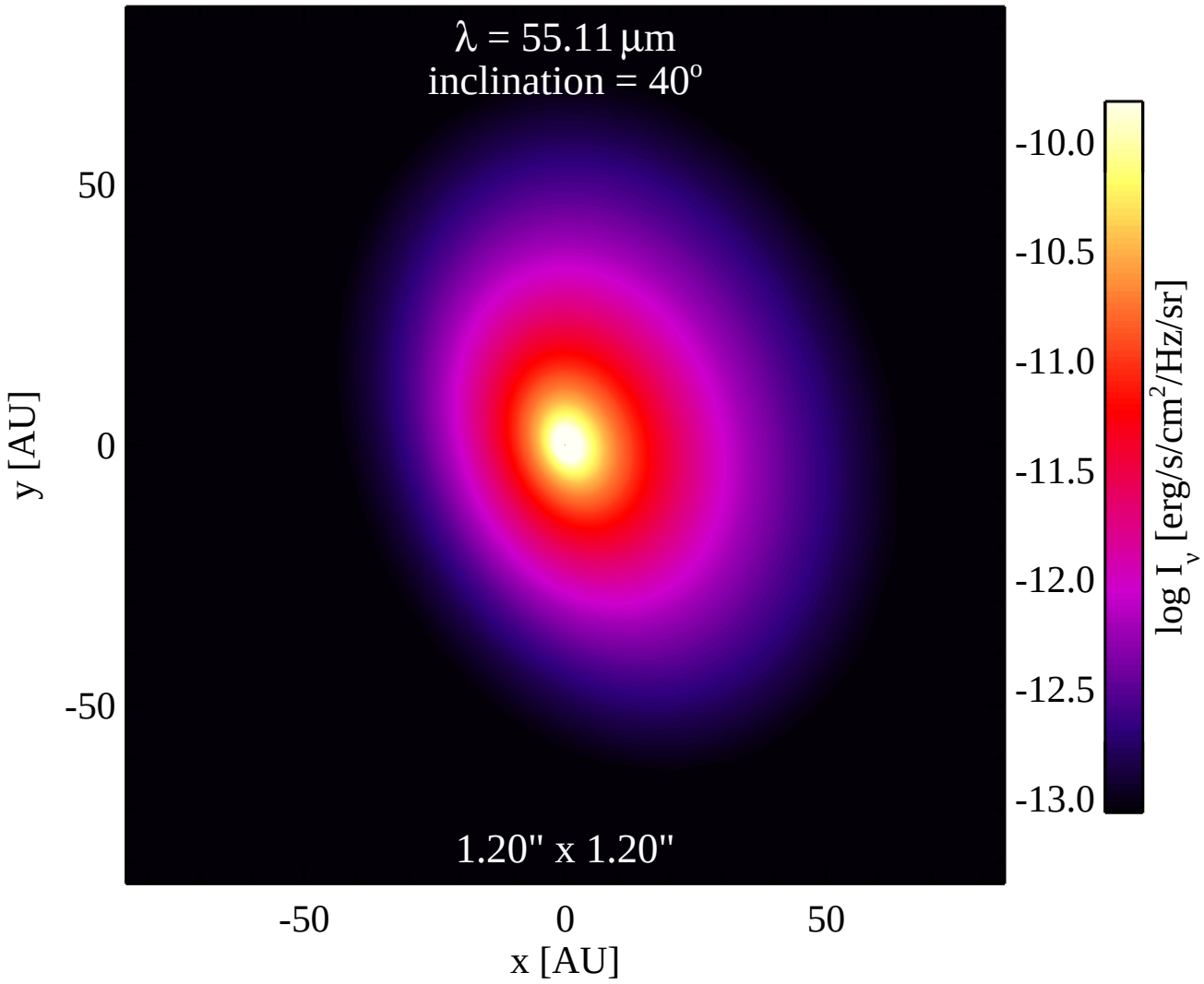

λ = 20.89 μm
inclination = 40°
0.39" x 0.39"
20
10
0
-10
-20
y [AU]
-20
-10
0
10
20
x [AU]
-9.0
-9.5
-10.0
-10.5
-11.0
-11.5
-12.0
log I_ν [erg/s/cm²/Hz/sr]

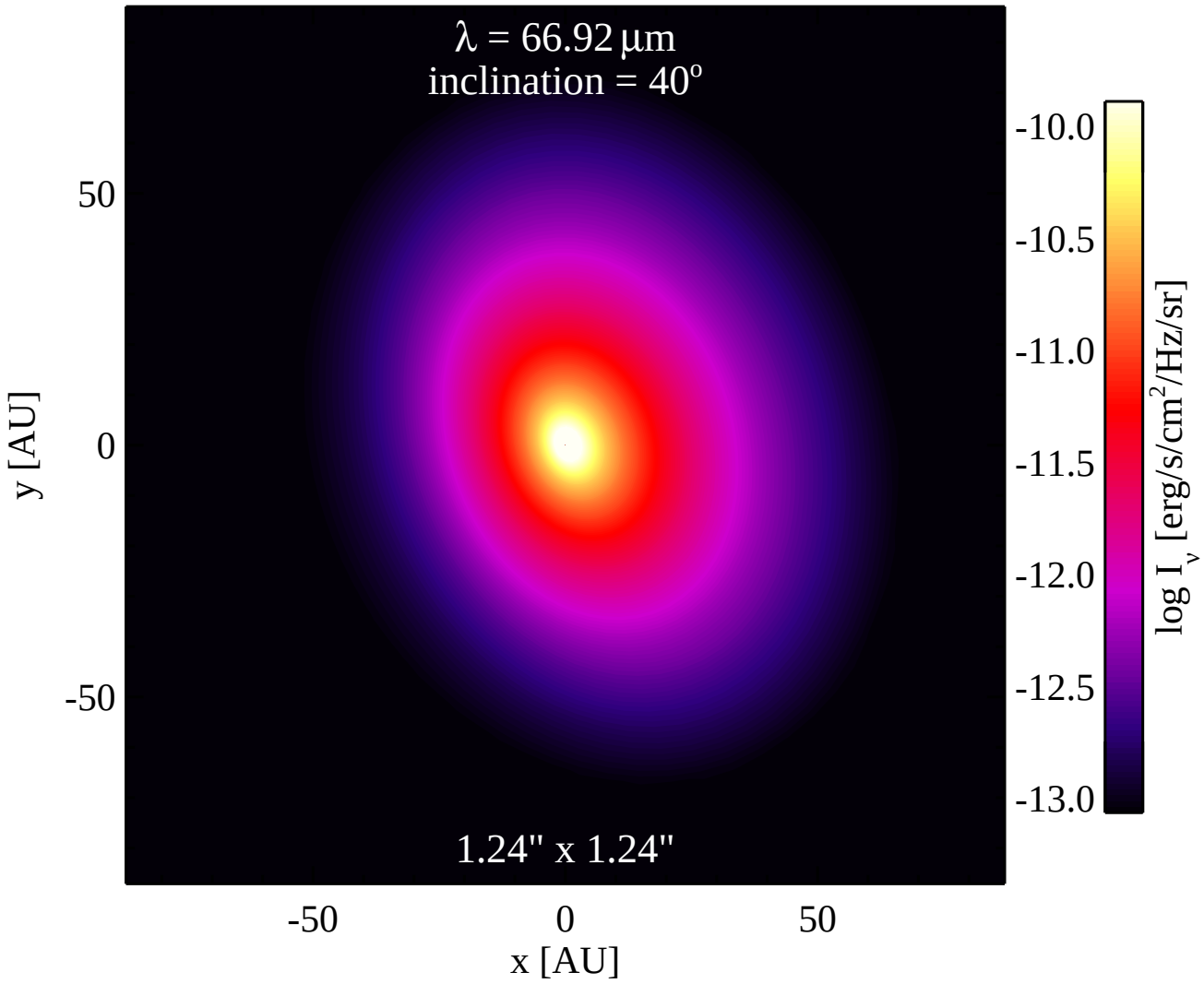

λ = 25.36 μm
inclination = 40°
0.57" x 0.57"
20
0
-20
y [AU]
-20
0
20
x [AU]
-9.5
-10.0
-10.5
-11.0
-11.5
-12.0
-12.5
log I_ν [erg/s/cm²/Hz/sr]

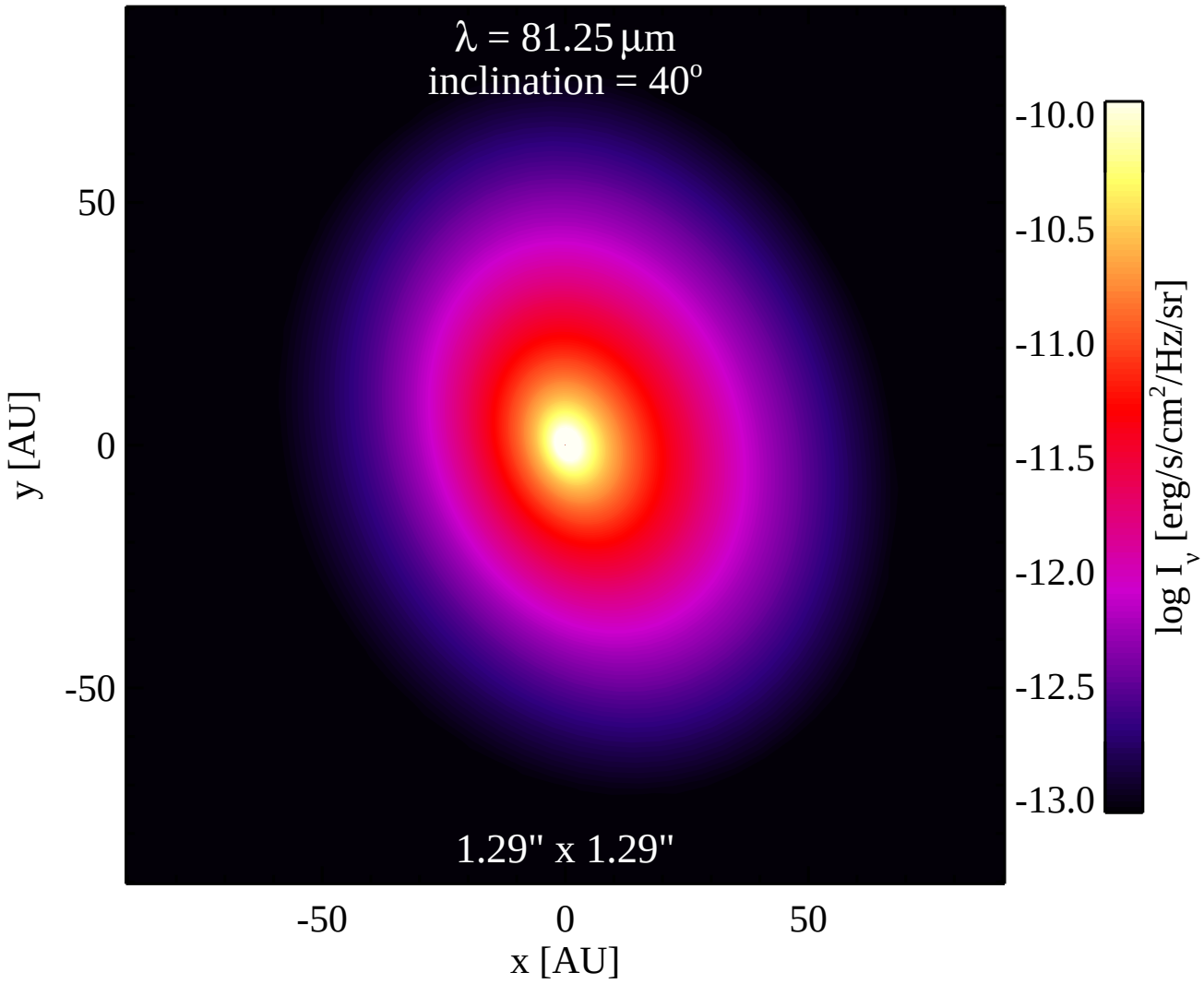

λ = 30.79 μm
inclination = 40°
0.81" x 0.81"
40
20
0
-20
-40
y [AU]
-40
-20
0
20
40
x [AU]
-10.0
-10.5
-11.0
-11.5
-12.0
-12.5
log I_ν [erg/s/cm²/Hz/sr]

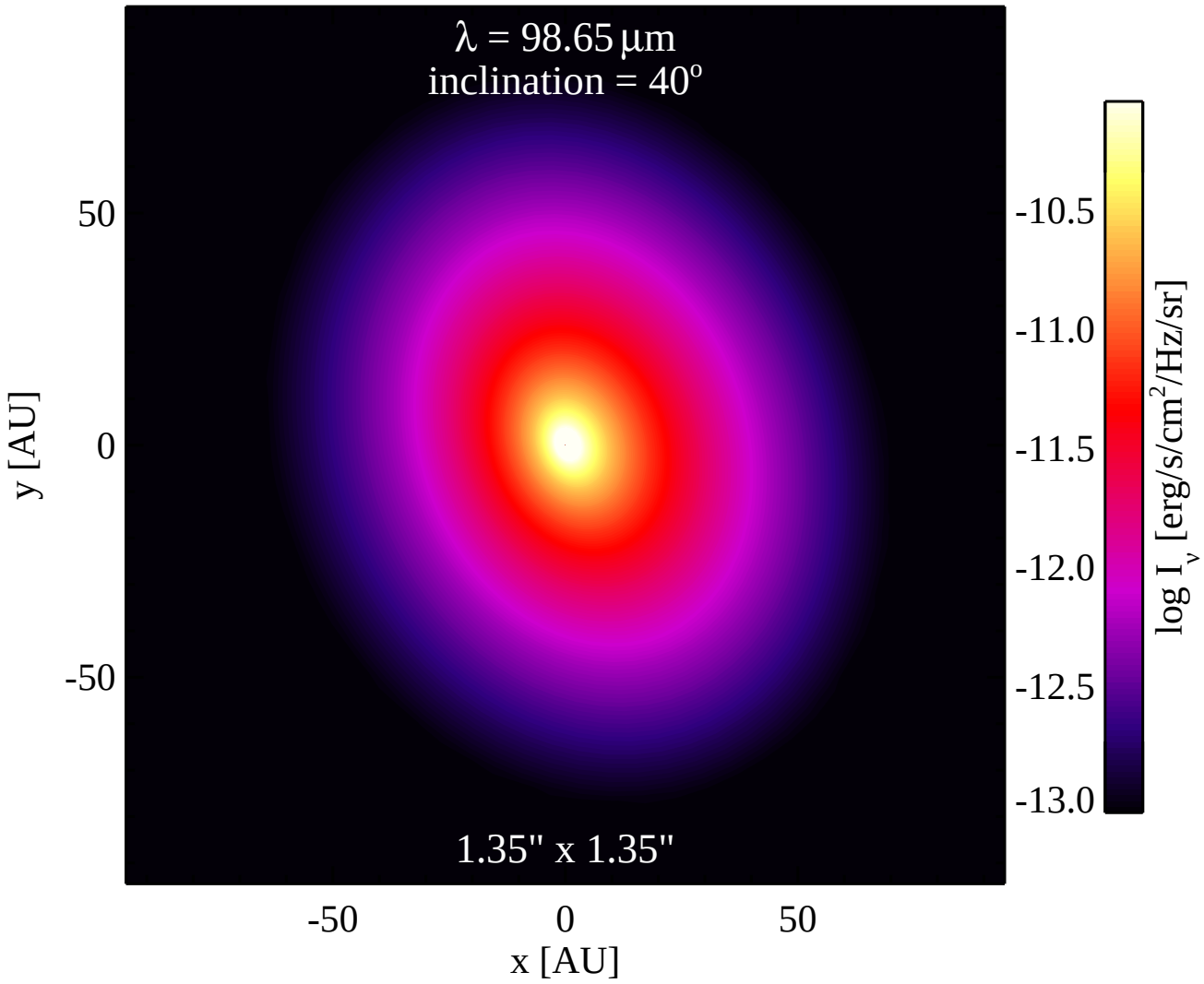

λ = 37.39 μm
inclination = 40°
0.99" x 0.99"
60
40
20
0
-20
-40
-60
y [AU]
-60
-40
-20
0
20
40
60
x [AU]
-10.0
-10.5
-11.0
-11.5
-12.0
-12.5
-13.0
log I_ν [erg/s/cm²/Hz/sr]

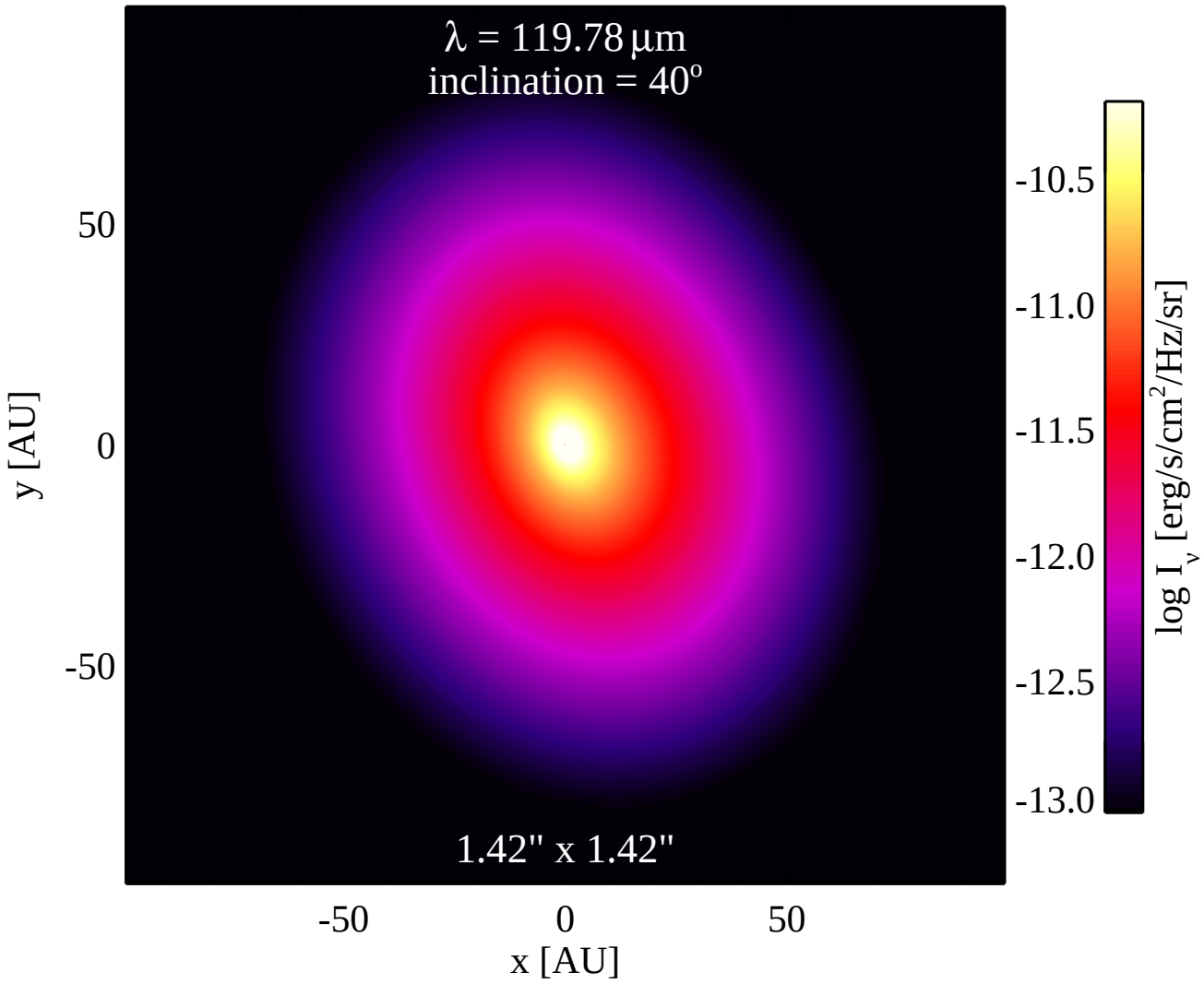

λ = 45.39 μm
inclination = 40°
1.11" x 1.11"
60
40
20
0
-20
-40
-60
y [AU]
-60
-40
-20
0
20
40
60
x [AU]
-10.0
-10.5
-11.0
-11.5
-12.0
-12.5
-13.0
log I_ν [erg/s/cm²/Hz/sr]

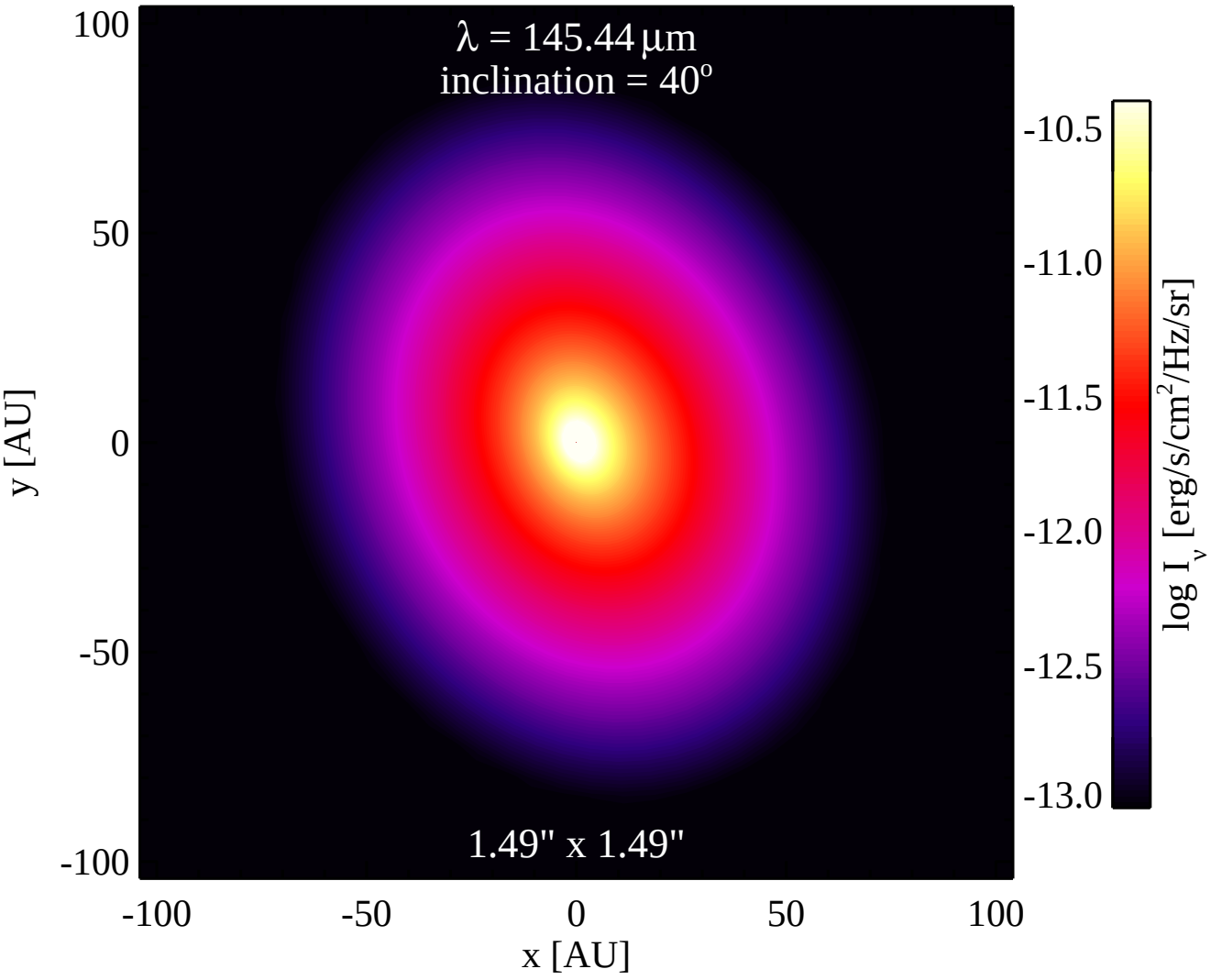

λ = 55.11 μm
inclination = 40°
1.20" x 1.20"
50
0
-50
y [AU]
-50
0
50
x [AU]
-10.0
-10.5
-11.0
-11.5
-12.0
-12.5
-13.0
log I_ν [erg/s/cm²/Hz/sr]

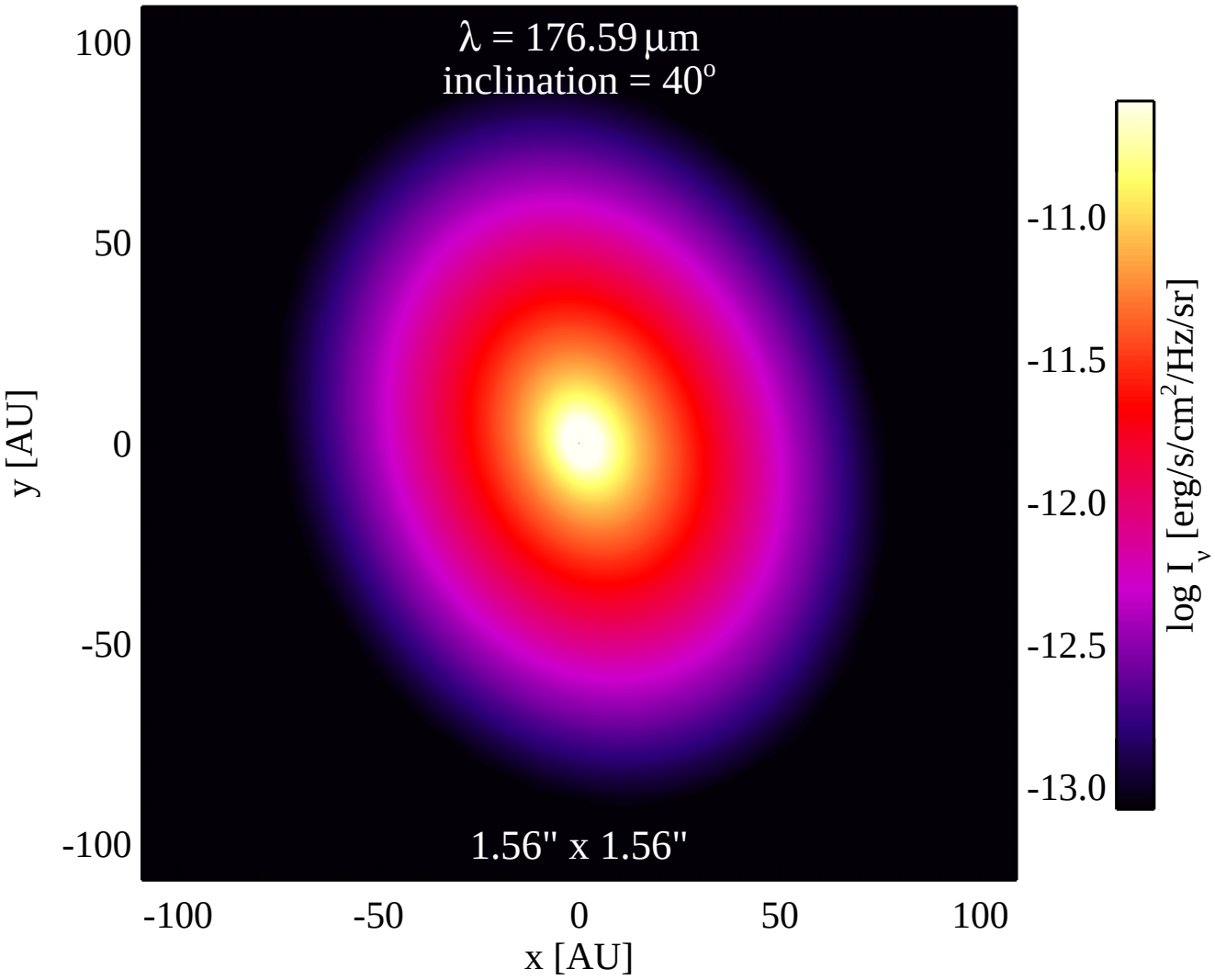

λ = 66.92 μm
inclination = 40°
1.24" x 1.24"
50
0
-50
y [AU]
-50
0
50
x [AU]
-10.0
-10.5
-11.0
-11.5
-12.0
-12.5
-13.0
log I_ν [erg/s/cm²/Hz/sr]

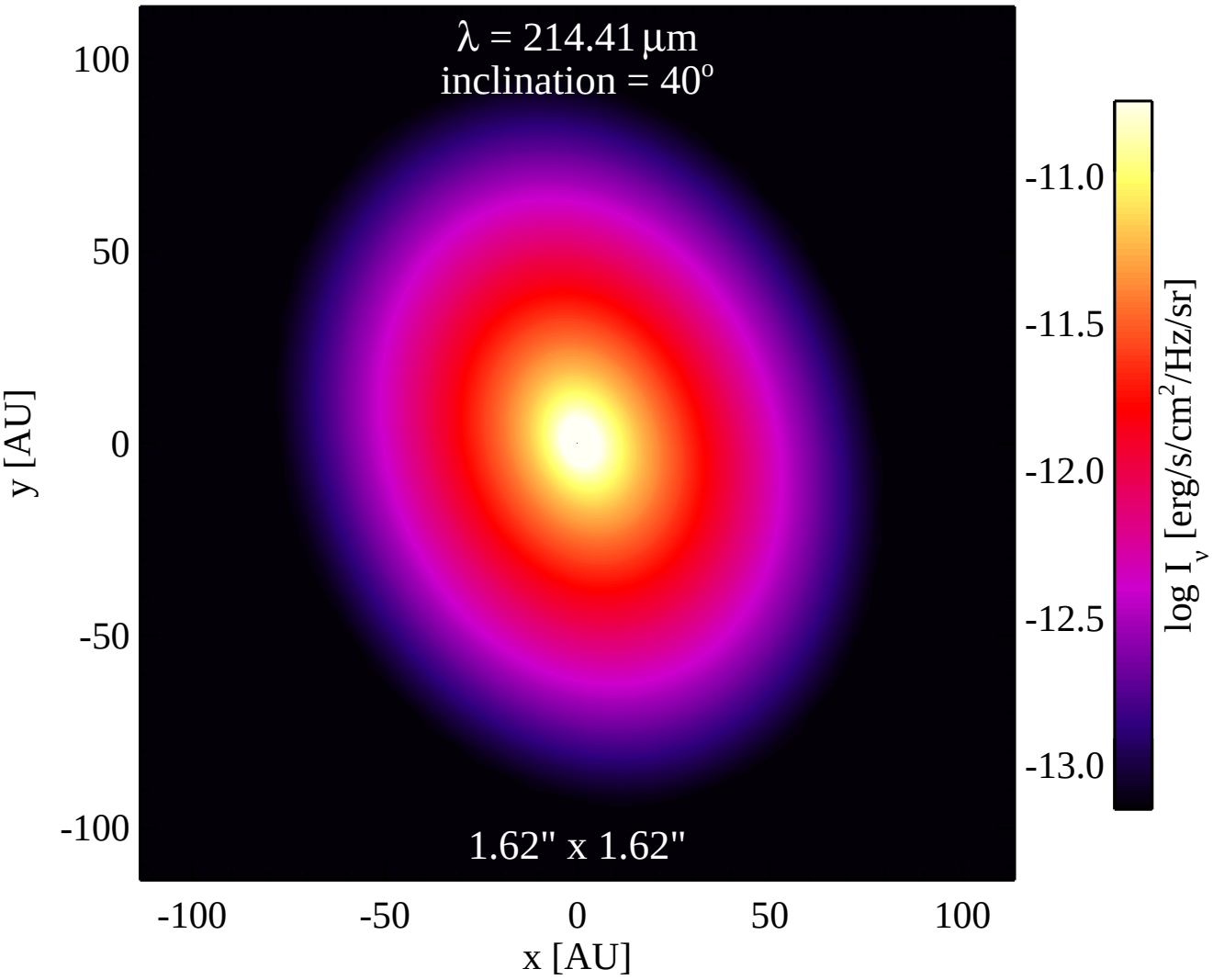

λ = 81.25 μm
inclination = 40°
1.29" x 1.29"
50
0
-50
y [AU]
-50
0
50
x [AU]
-10.0
-10.5
-11.0
-11.5
-12.0
-12.5
-13.0
log I_ν [erg/s/cm²/Hz/sr]

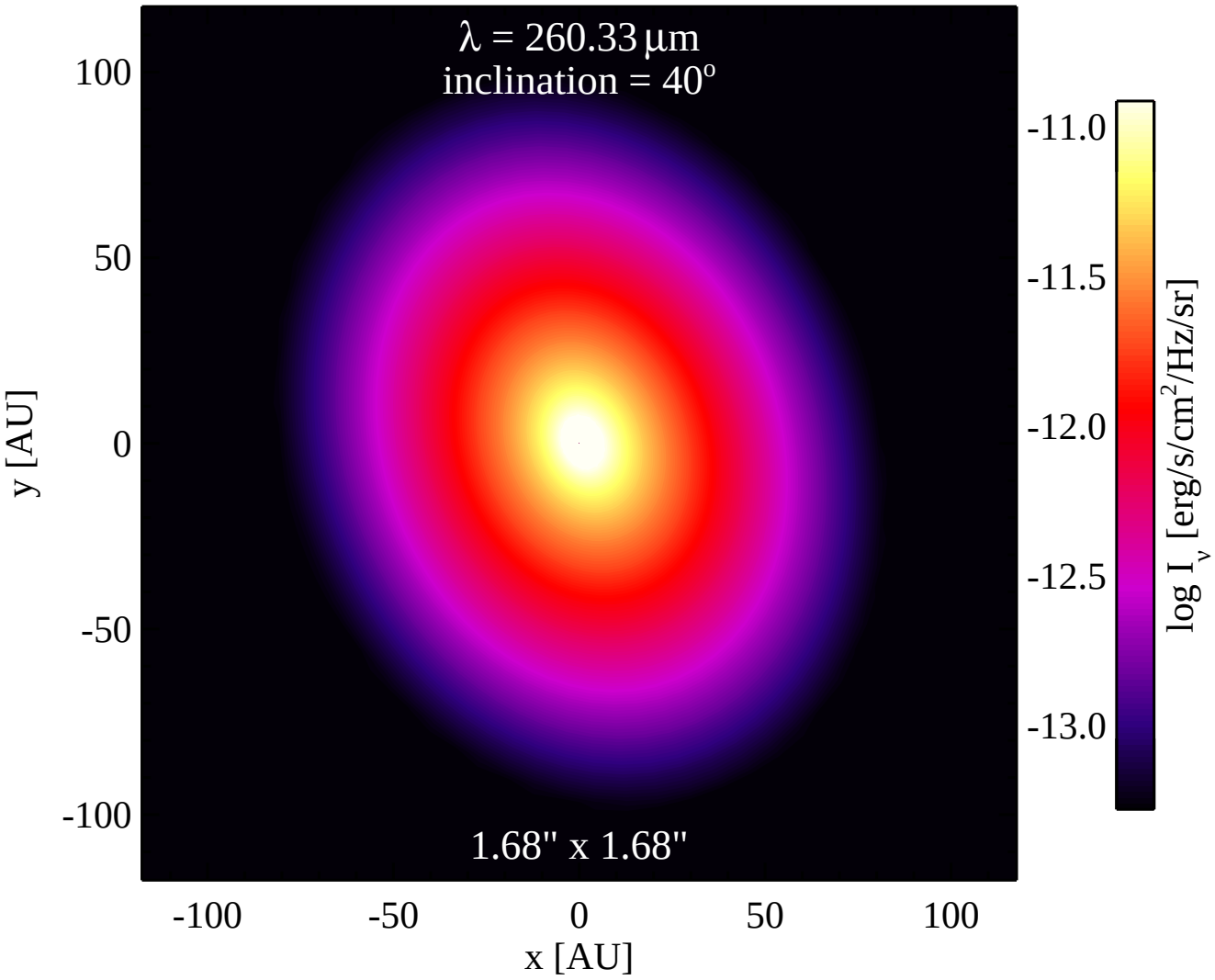

λ = 98.65 μm
inclination = 40°
1.35" x 1.35"
50
0
-50
y [AU]
-50
0
50
x [AU]
-10.5
-11.0
-11.5
-12.0
-12.5
-13.0
log I_ν [erg/s/cm²/Hz/sr]

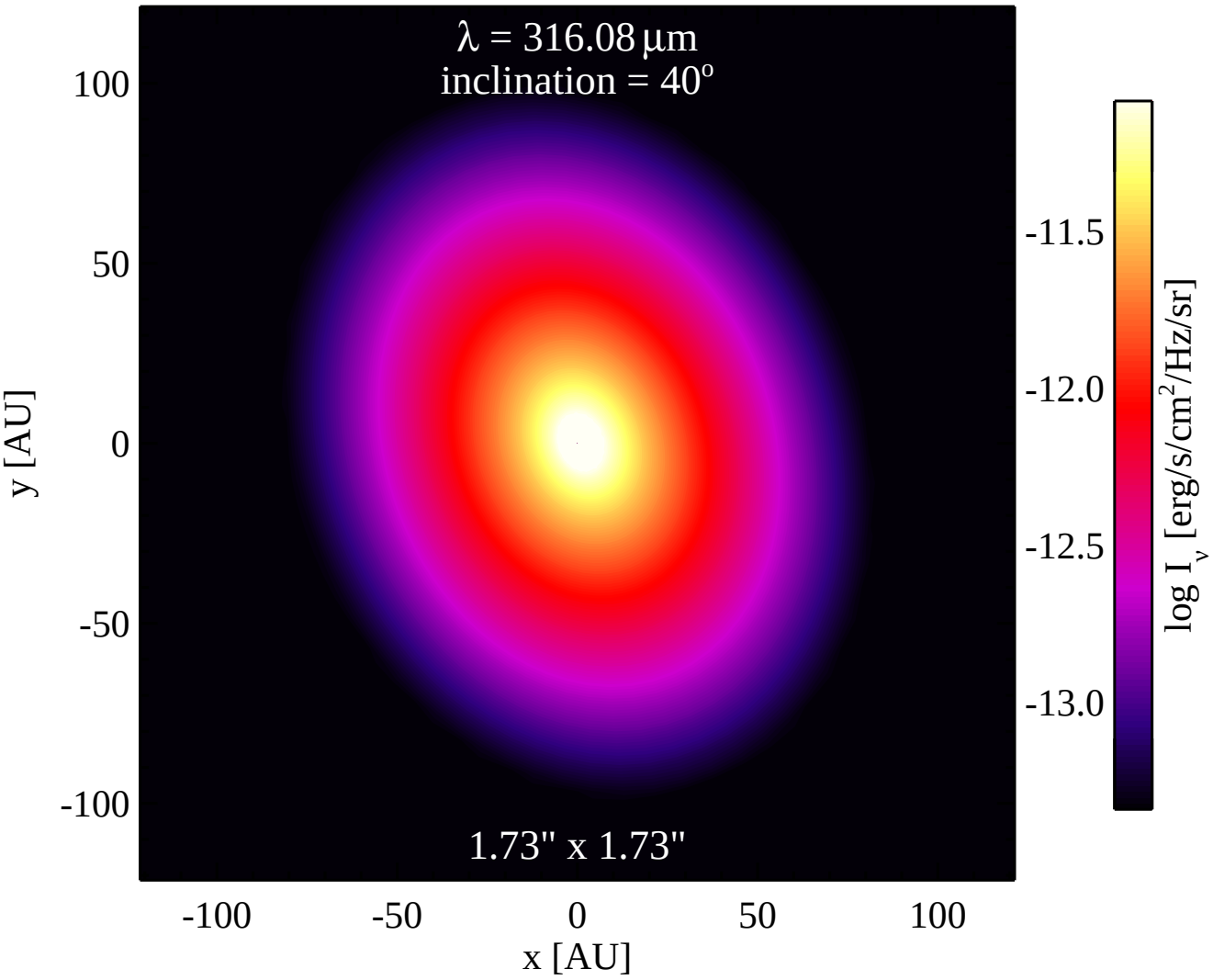

λ = 119.78 μm
inclination = 40°
1.42" x 1.42"
50
0
-50
y [AU]
-50
0
50
x [AU]
-10.5
-11.0
-11.5
-12.0
-12.5
-13.0
log I_ν [erg/s/cm²/Hz/sr]

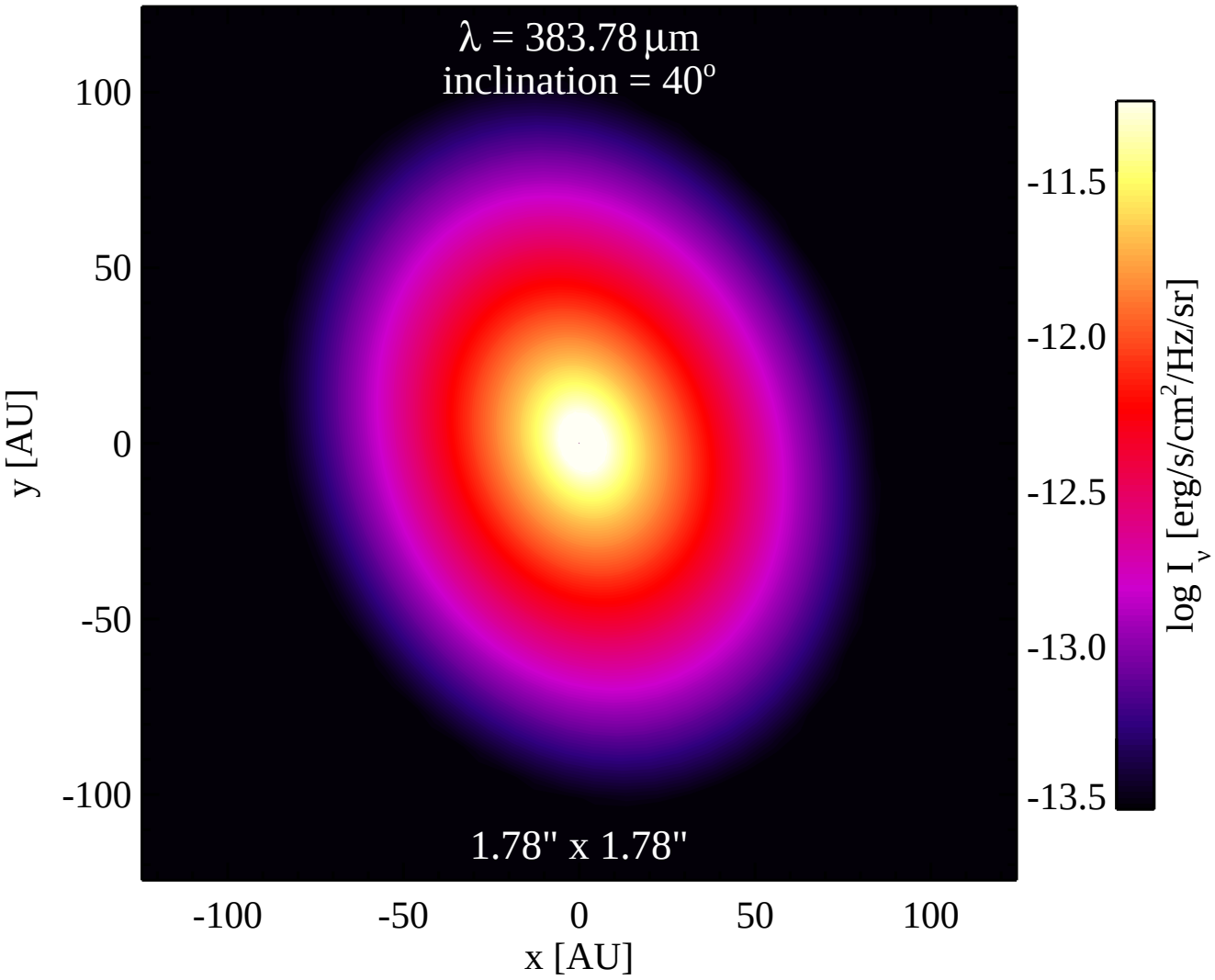

λ = 145.44 μm
inclination = 40°
1.49" x 1.49"
100
50
0
-50
-100
y [AU]
-100
-50
0
50
100
x [AU]
-10.5
-11.0
-11.5
-12.0
-12.5
-13.0
log I_ν [erg/s/cm²/Hz/sr]

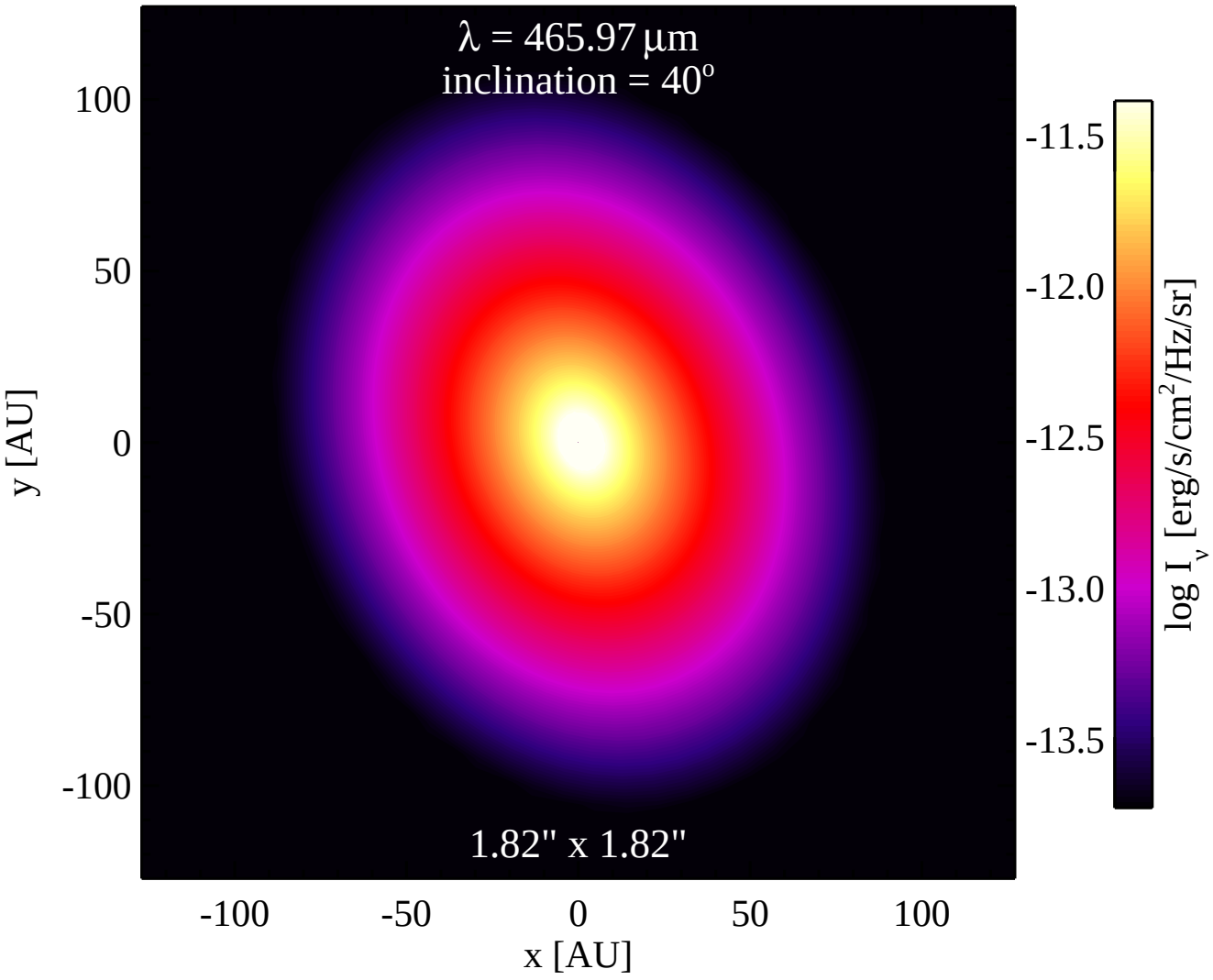

λ = 176.59 μm
inclination = 40°
1.56" x 1.56"
100
50
0
-50
-100
y [AU]
-100
-50
0
50
100
x [AU]
-11.0
-11.5
-12.0
-12.5
-13.0
log I_ν [erg/s/cm²/Hz/sr]

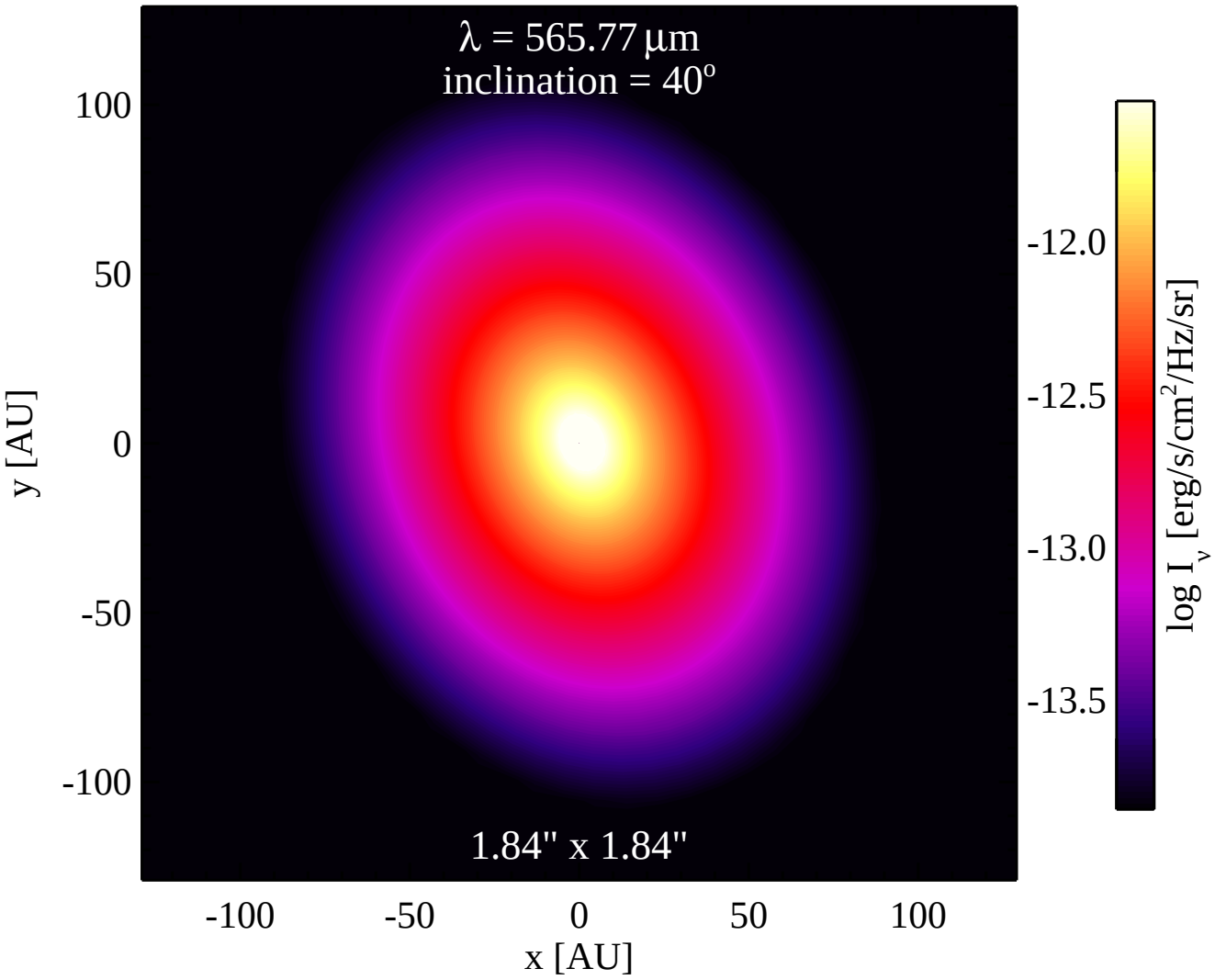

λ = 214.41 μm
inclination = 40°
1.62" x 1.62"
100
50
0
-50
-100
y [AU]
-100
-50
0
50
100
x [AU]
-11.0
-11.5
-12.0
-12.5
-13.0
log I_ν [erg/s/cm²/Hz/sr]

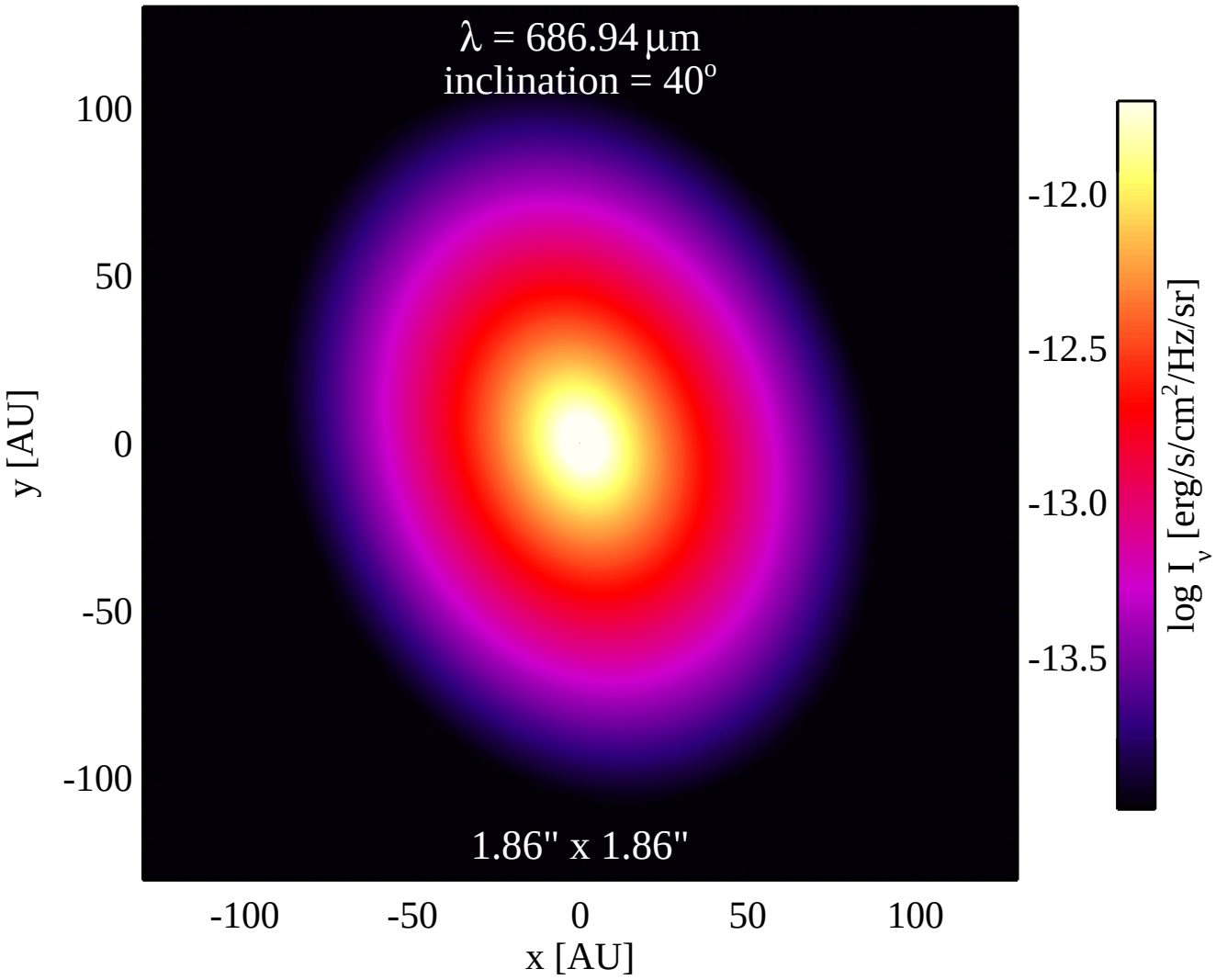

λ = 260.33 μm
inclination = 40°
1.68" x 1.68"
100
50
0
-50
-100
y [AU]
-100
-50
0
50
100
x [AU]
-11.0
-11.5
-12.0
-12.5
-13.0
log I_ν [erg/s/cm²/Hz/sr]

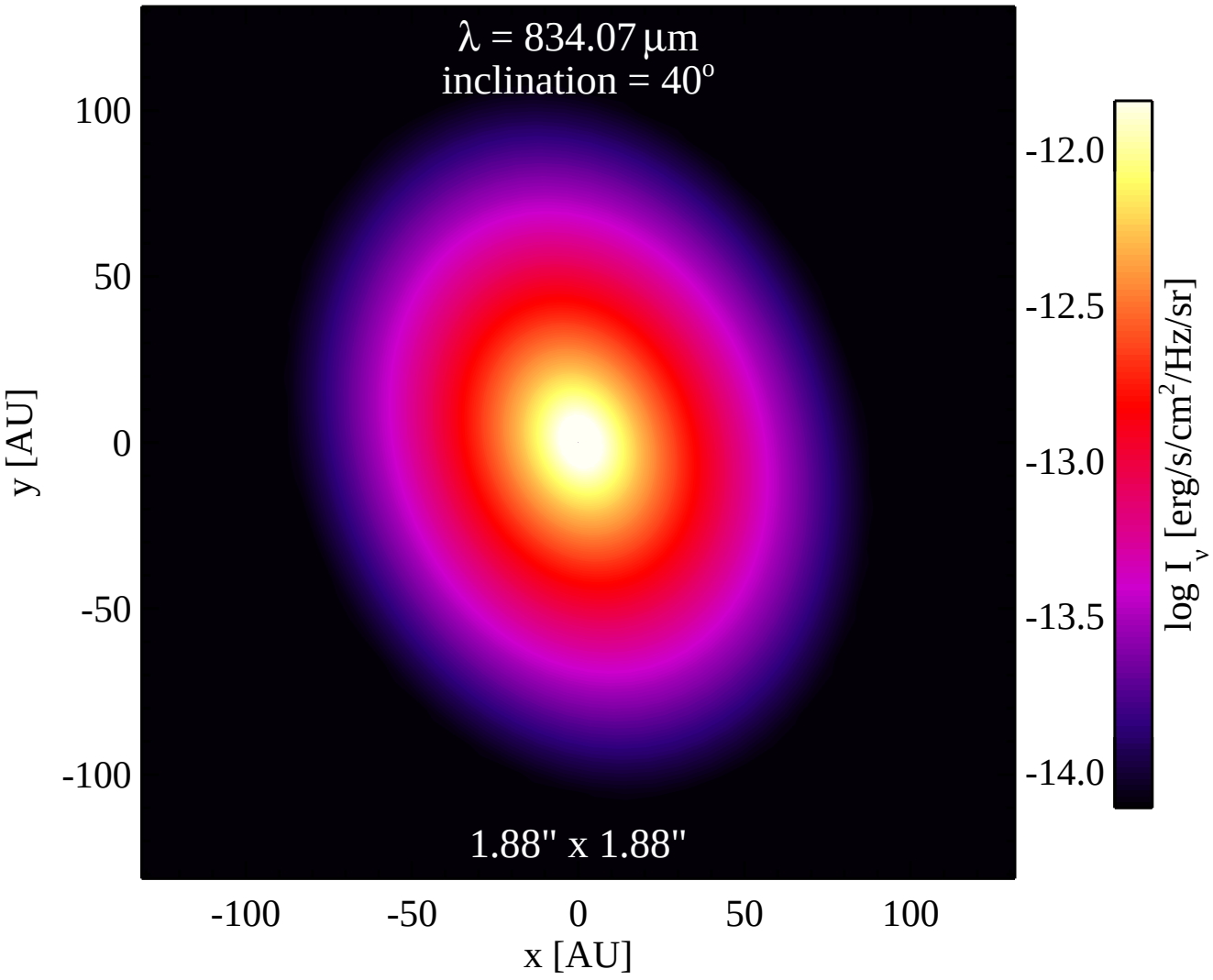

λ = 316.08 μm
inclination = 40°
1.73" x 1.73"
100
50
0
-50
-100
y [AU]
-100
-50
0
50
100
x [AU]
-11.5
-12.0
-12.5
-13.0
log I_ν [erg/s/cm²/Hz/sr]

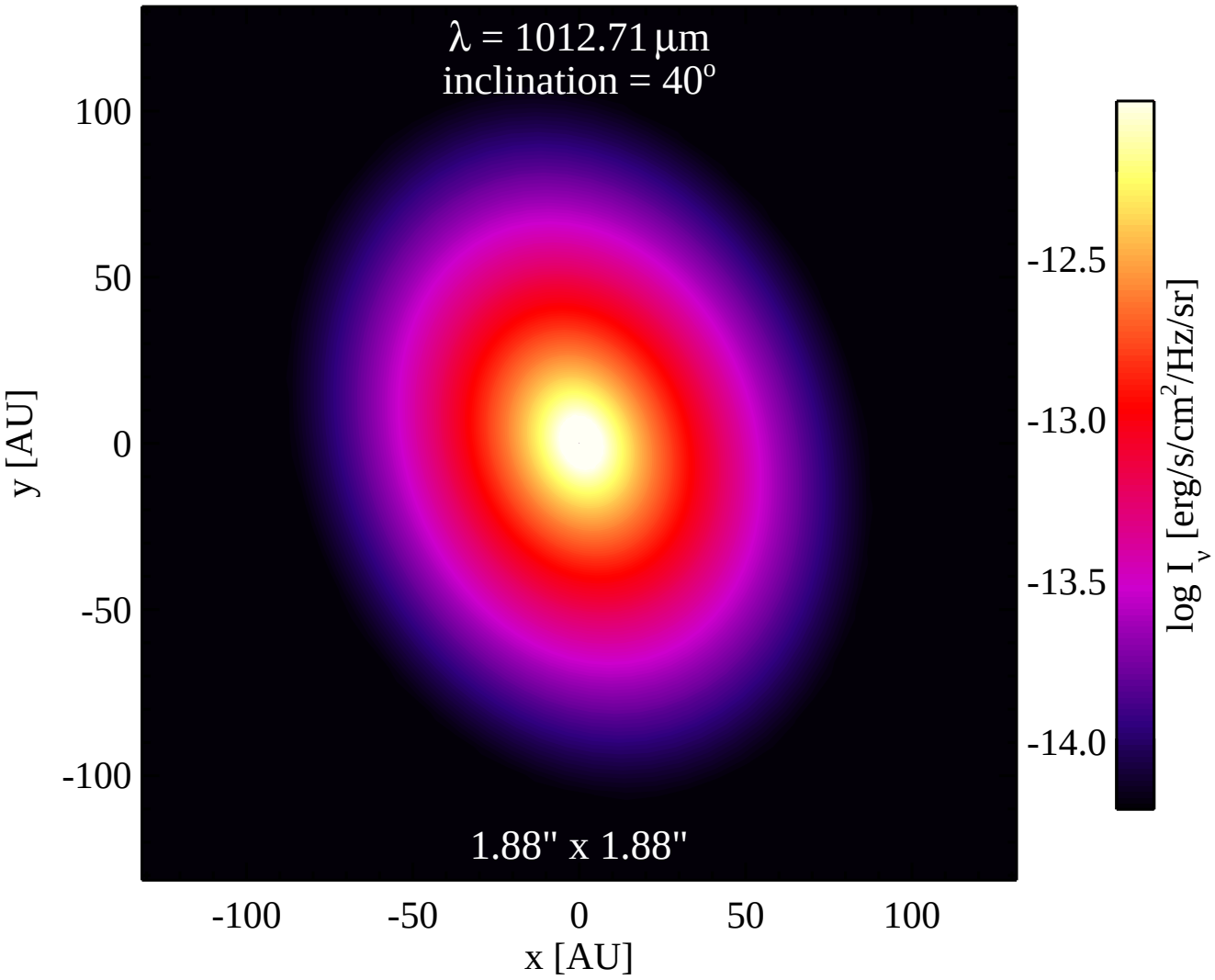

λ = 383.78 μm
inclination = 40°
1.78" x 1.78"
100
50
0
-50
-100
y [AU]
-100
-50
0
50
100
x [AU]
-11.5
-12.0
-12.5
-13.0
-13.5
log I_ν [erg/s/cm²/Hz/sr]

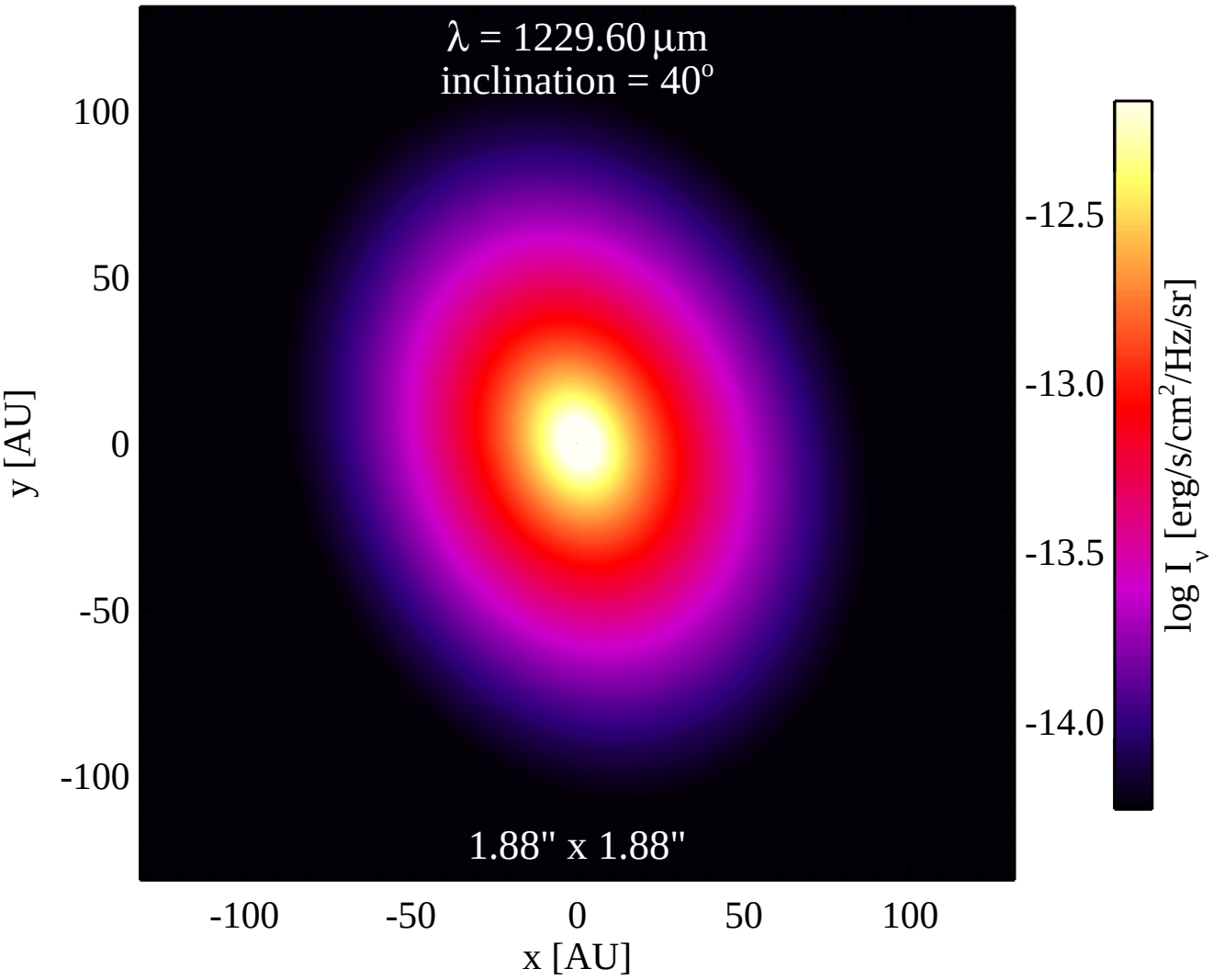

λ = 465.97 μm
inclination = 40°
1.82" x 1.82"
100
50
0
-50
-100
y [AU]
-100
-50
0
50
100
x [AU]
-11.5
-12.0
-12.5
-13.0
-13.5
log I_ν [erg/s/cm²/Hz/sr]

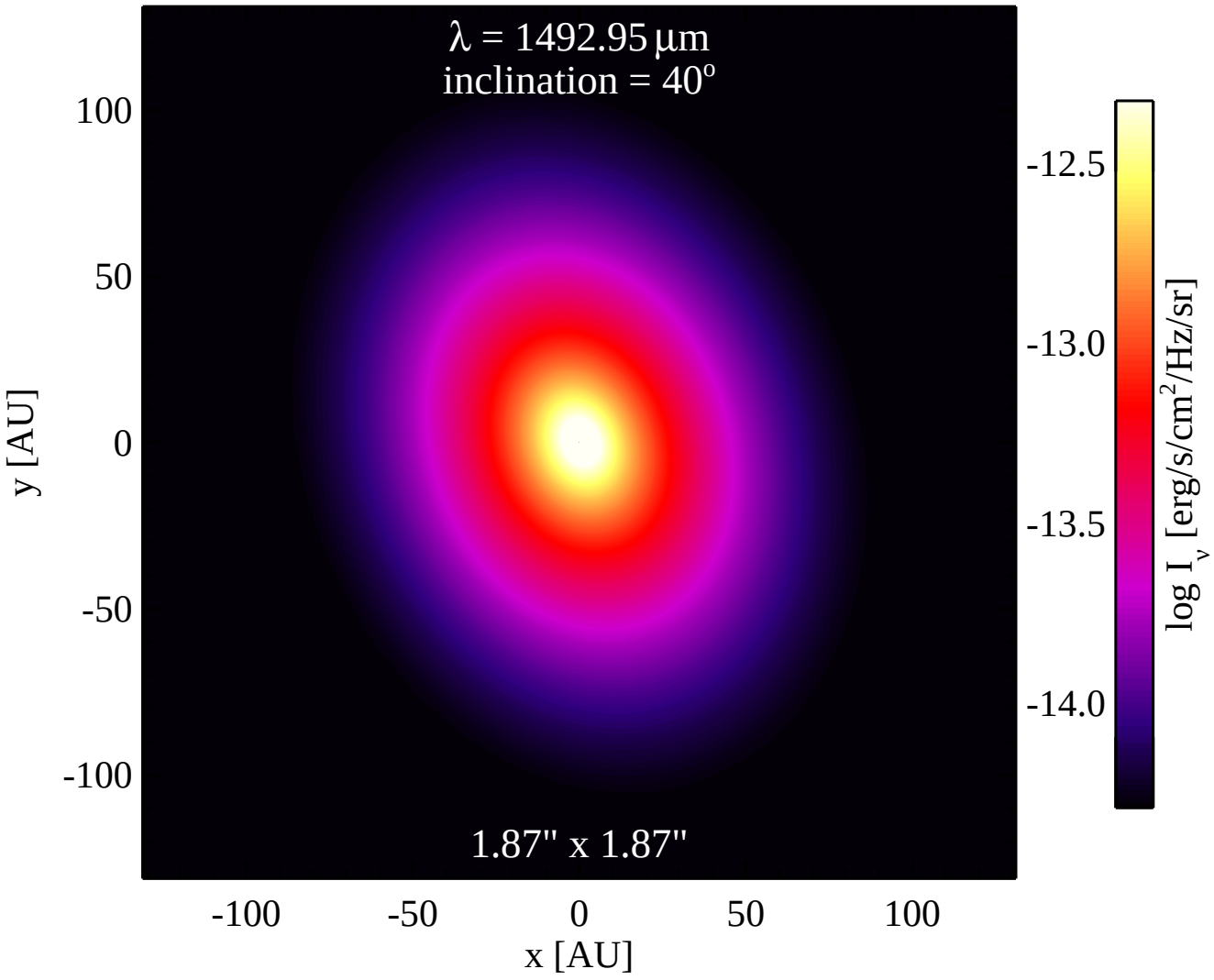

λ = 565.77 μm
inclination = 40°
1.84" x 1.84"
100
50
0
-50
-100
y [AU]
-100
-50
0
50
100
x [AU]
-12.0
-12.5
-13.0
-13.5
log I_ν [erg/s/cm²/Hz/sr]

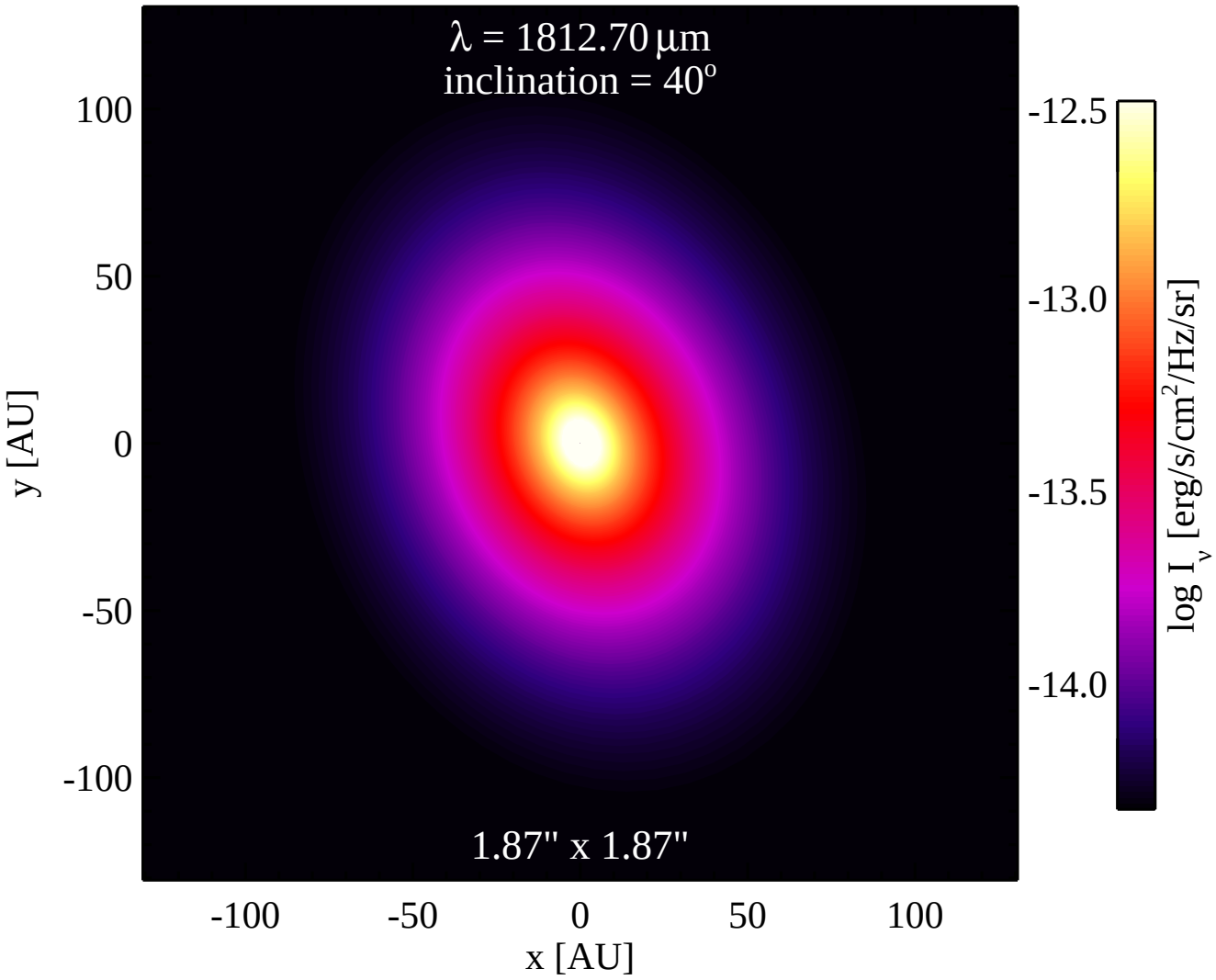

λ = 686.94 μm
inclination = 40°
1.86" x 1.86"
100
50
0
-50
-100
y [AU]
-100
-50
0
50
100
x [AU]
-12.0
-12.5
-13.0
-13.5
log I_ν [erg/s/cm²/Hz/sr]

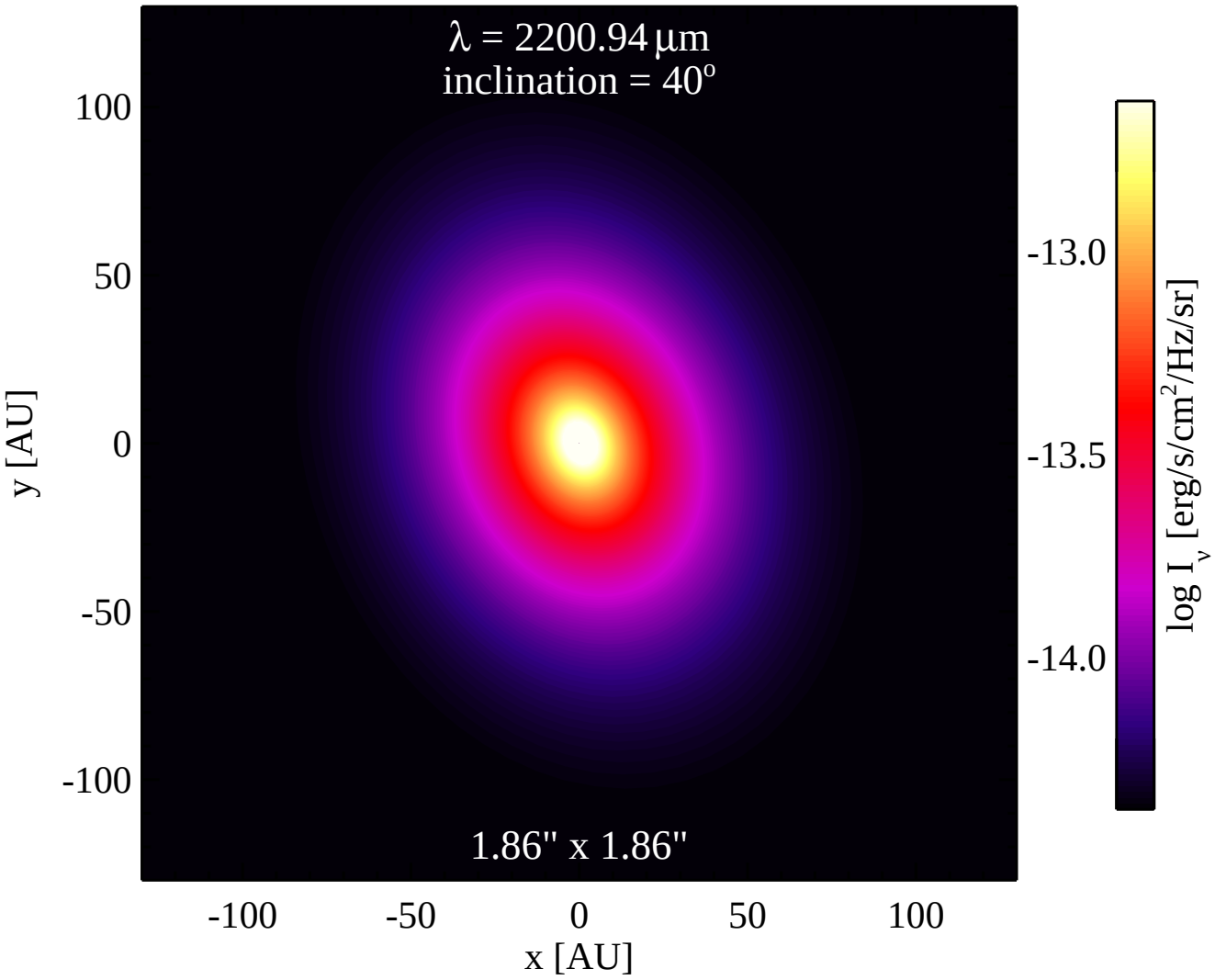

λ = 834.07 μm
inclination = 40°
1.88" x 1.88"
100
50
0
-50
-100
y [AU]
-100
-50
0
50
100
x [AU]
-12.0
-12.5
-13.0
-13.5
-14.0
log I_ν [erg/s/cm²/Hz/sr]

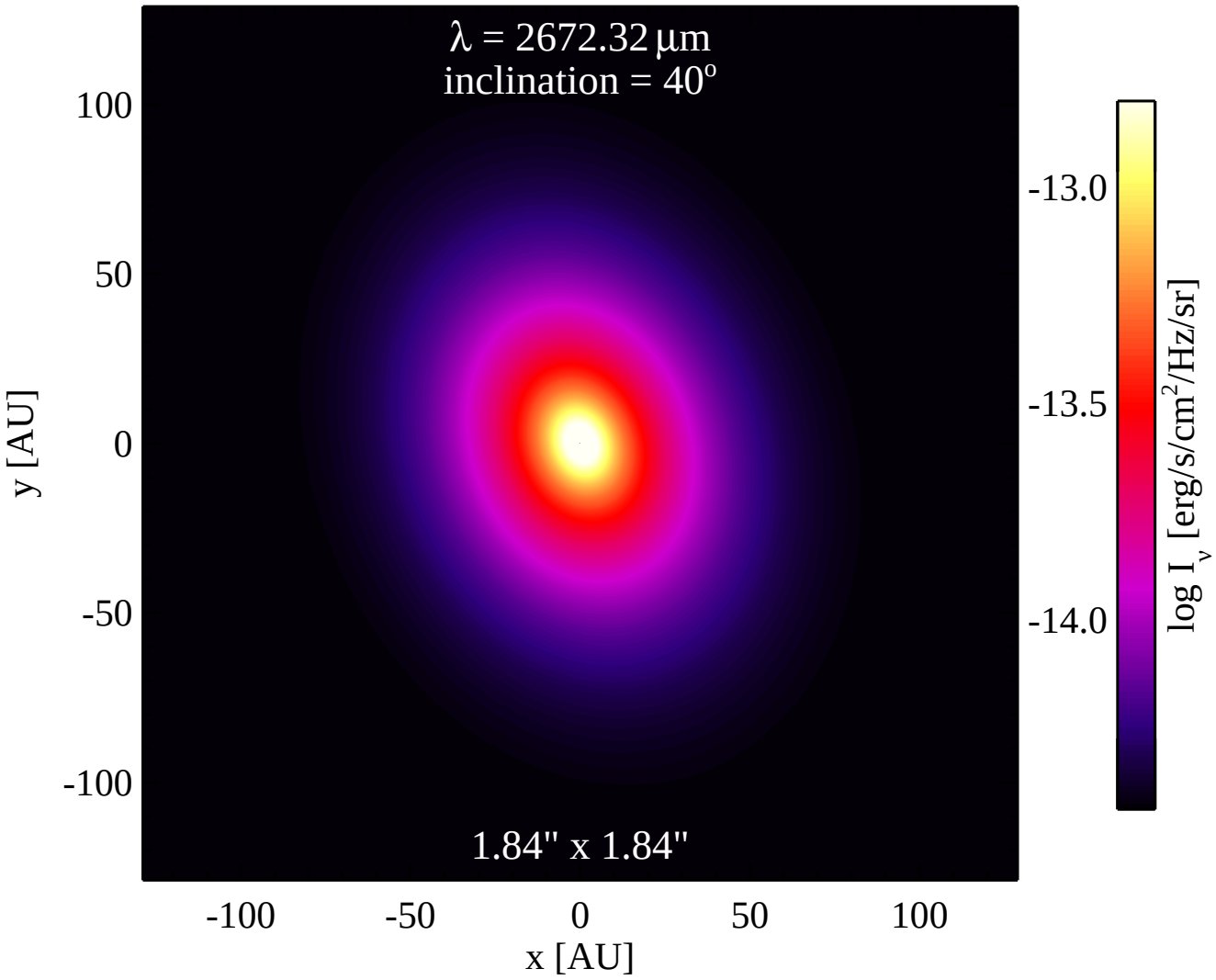

λ = 1012.71 μm
inclination = 40°
1.88" x 1.88"
100
50
0
-50
-100
y [AU]
-100
-50
0
50
100
x [AU]
-12.5
-13.0
-13.5
-14.0
log I_ν [erg/s/cm²/Hz/sr]

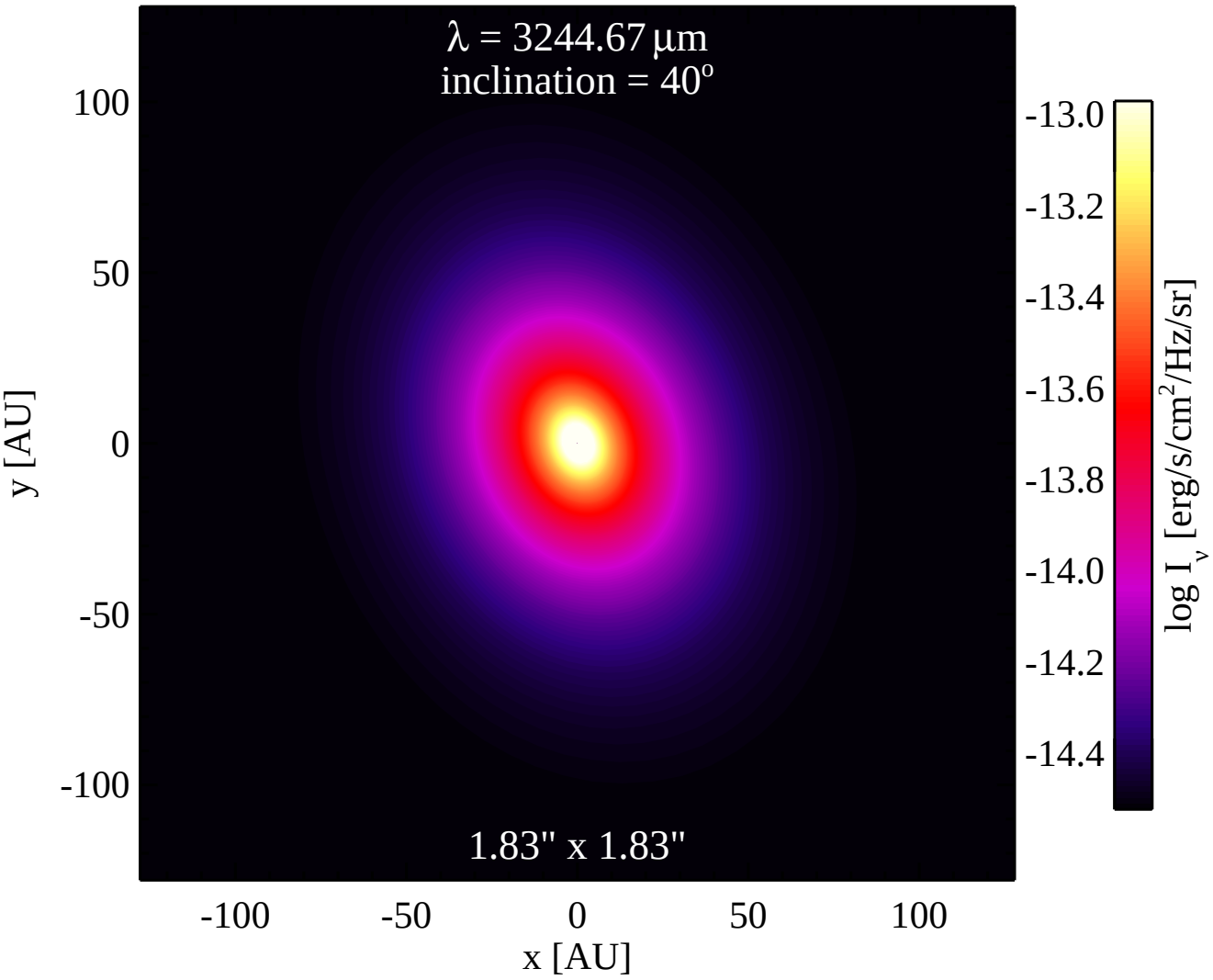

λ = 1229.60 μm
inclination = 40°
1.88" x 1.88"
100
50
0
-50
-100
y [AU]
-100
-50
0
50
100
x [AU]
-12.5
-13.0
-13.5
-14.0
log I_ν [erg/s/cm²/Hz/sr]

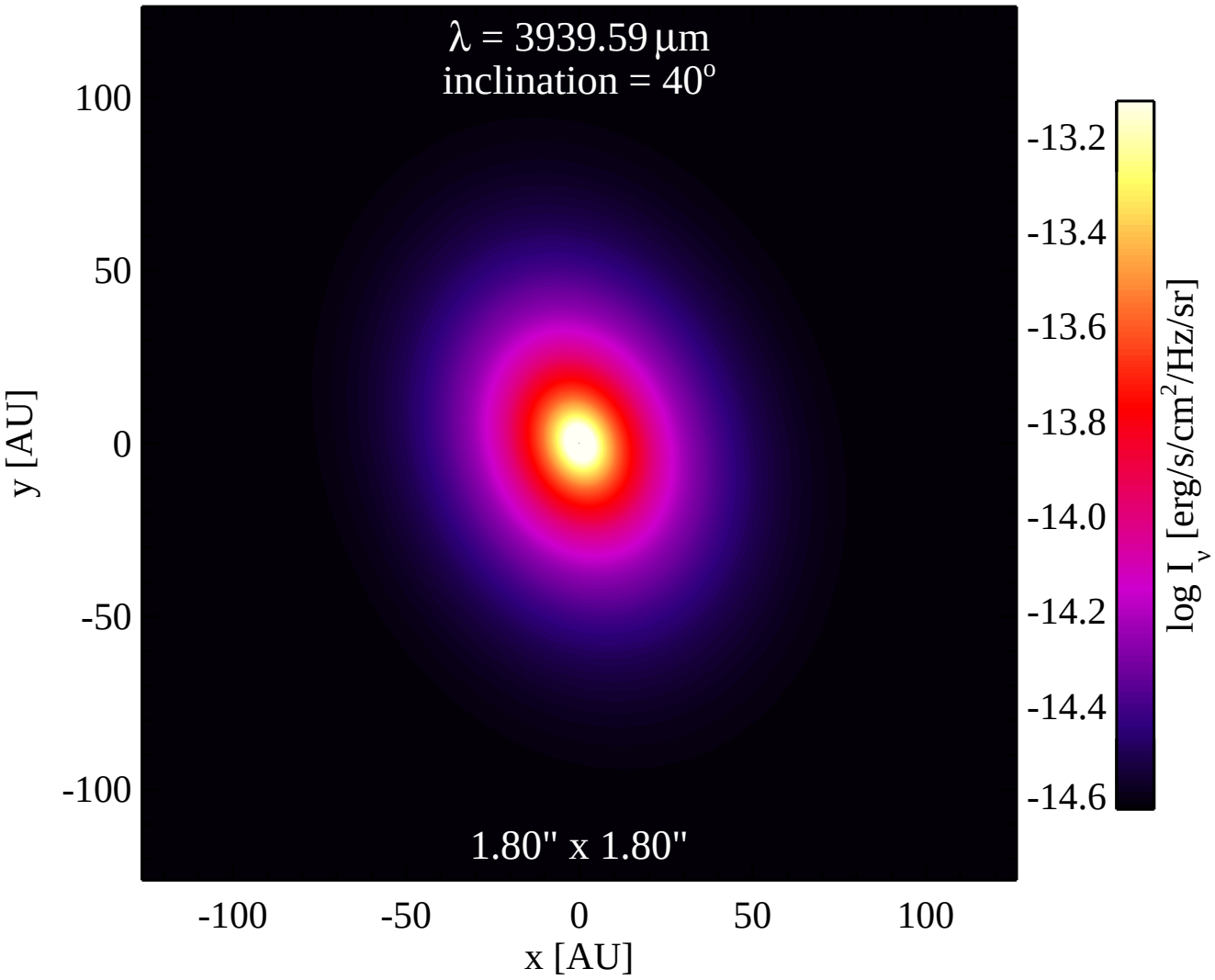

λ = 1492.95 μm
inclination = 40°
1.87" x 1.87"
100
50
0
-50
-100
y [AU]
-100
-50
0
50
100
x [AU]
-12.5
-13.0
-13.5
-14.0
log I_ν [erg/s/cm²/Hz/sr]

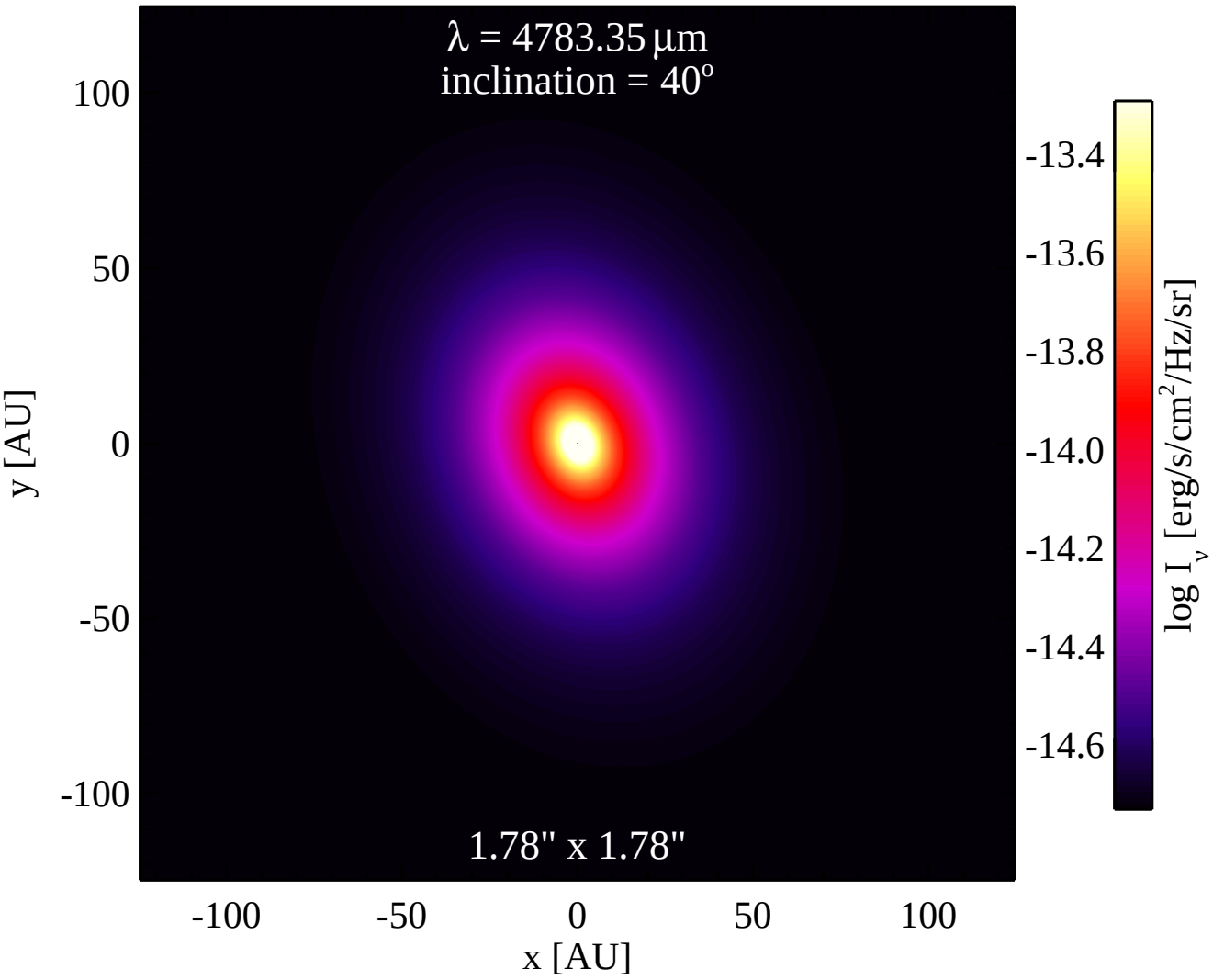

λ = 1812.70 μm
inclination = 40°
1.87" x 1.87"
100
50
0
-50
-100
y [AU]
-100
-50
0
50
100
x [AU]
-12.5
-13.0
-13.5
-14.0
log I_ν [erg/s/cm²/Hz/sr]


λ = 2200.94 μm
inclination = 40°
1.86" x 1.86"
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 = 2672.32 μm
inclination = 40°
1.84" x 1.84"
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 = 3244.67 μm
inclination = 40°
1.83" x 1.83"
100
50
0
-50
-100
y [AU]
-100
-50
0
50
100
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 = 3939.59 μm
inclination = 40°
1.80" x 1.80"
100
50
0
-50
-100
y [AU]
-100
-50
0
50
100
x [AU]
-13.2
-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 = 40°
1.78" x 1.78"
100
50
0
-50
-100
y [AU]
-100
-50
0
50
100
x [AU]
-13.4
-13.6
-13.8
-14.0
-14.2
-14.4
-14.6
log I_ν [erg/s/cm²/Hz/sr]