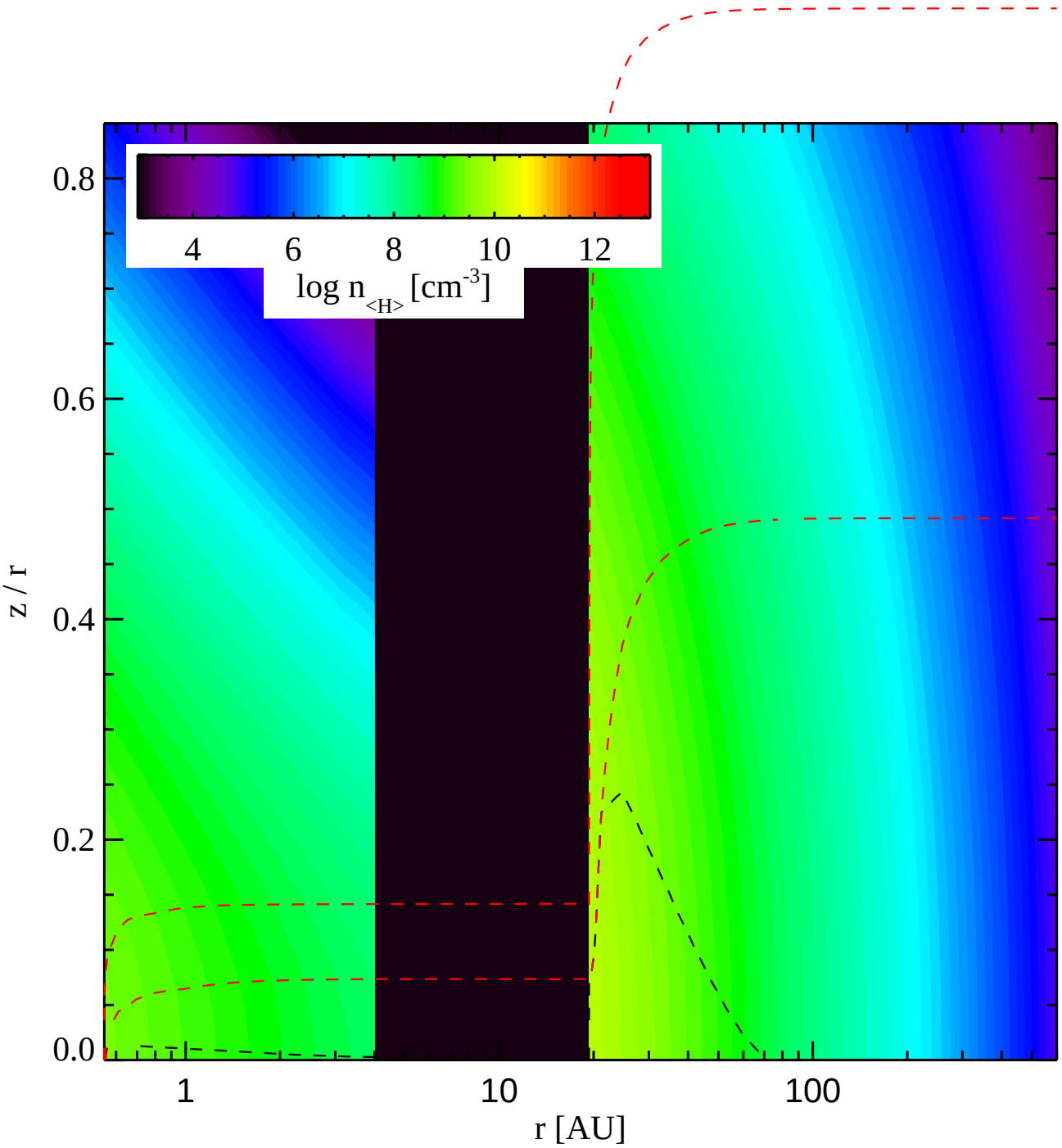
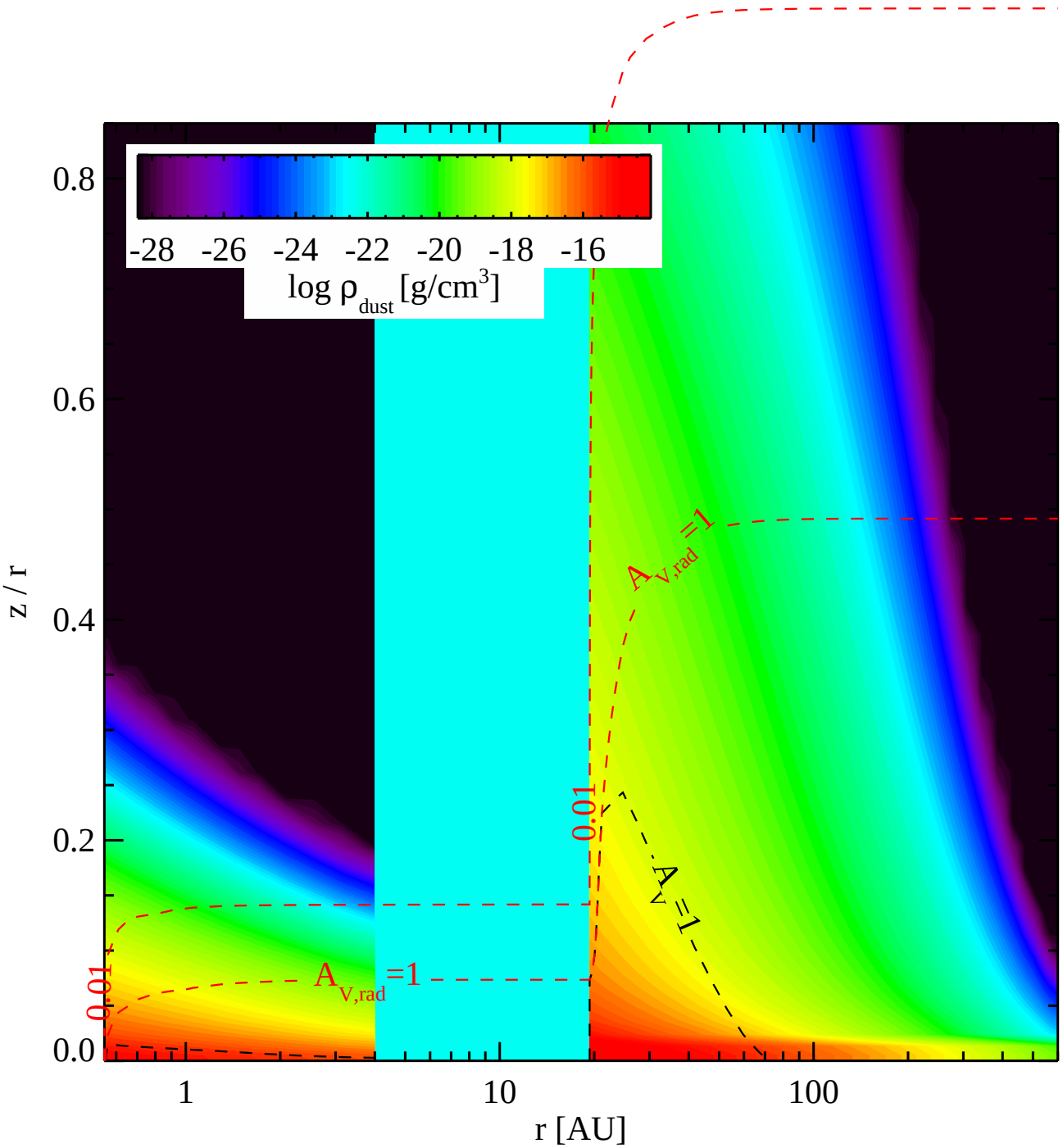
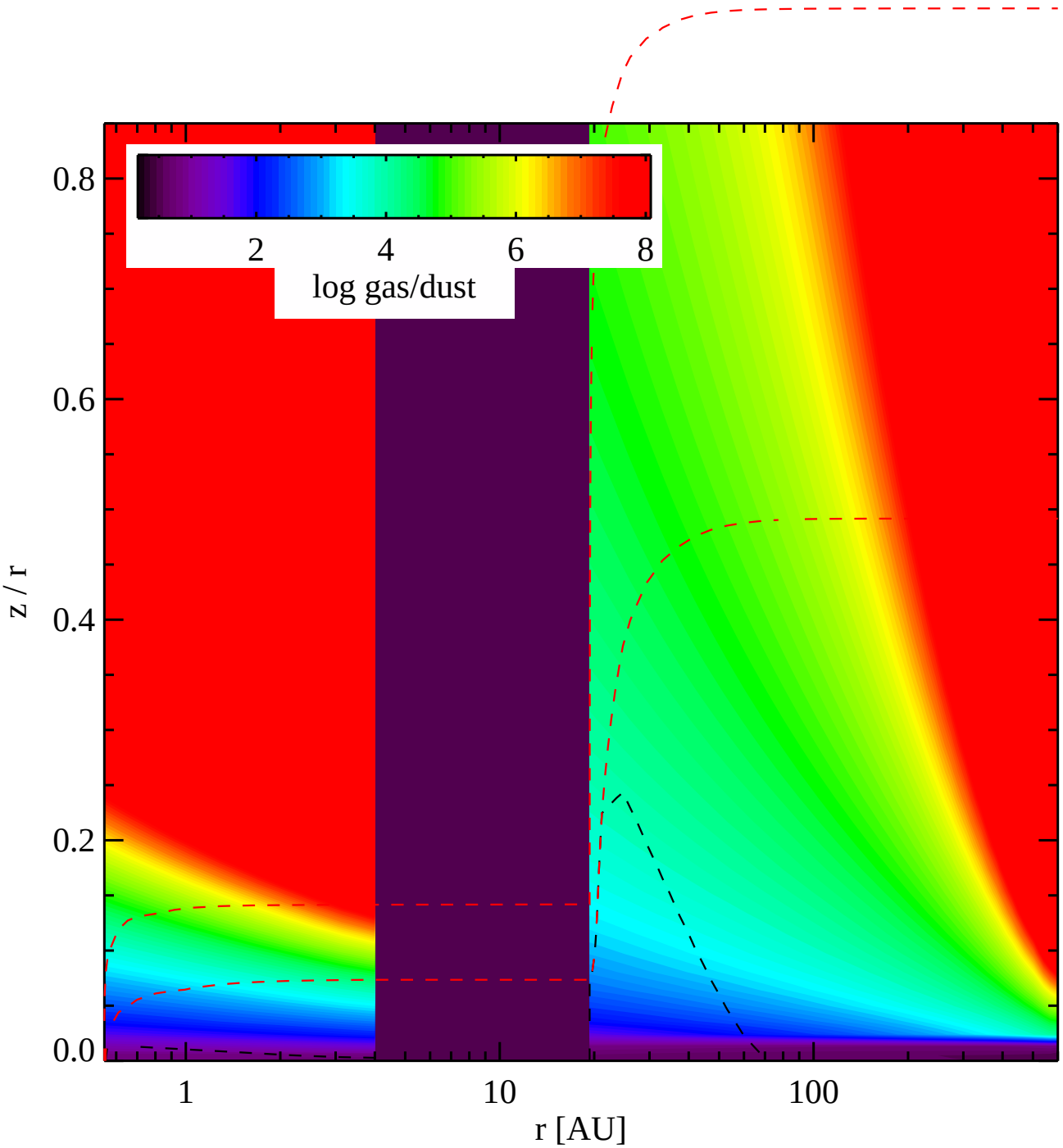
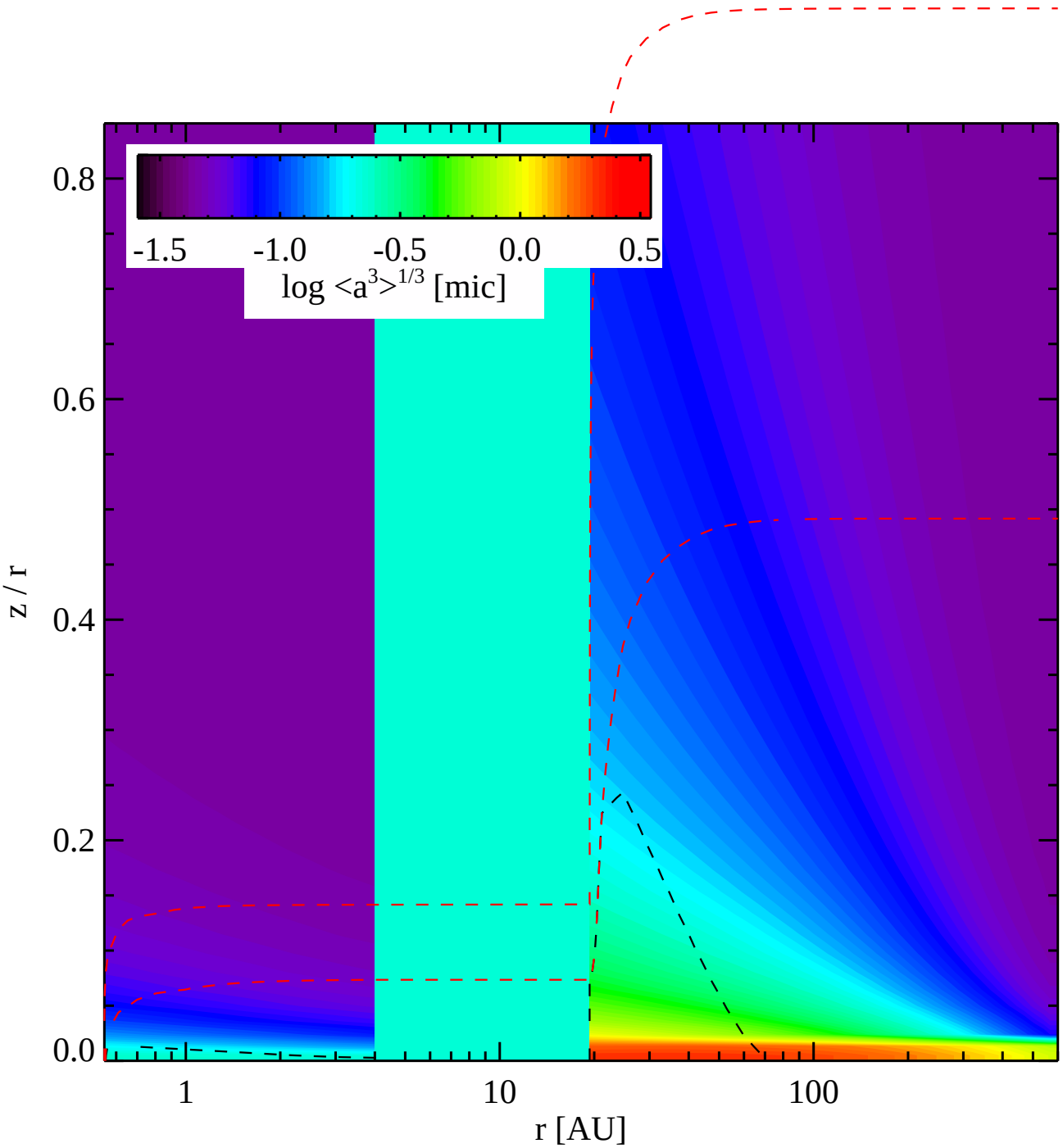
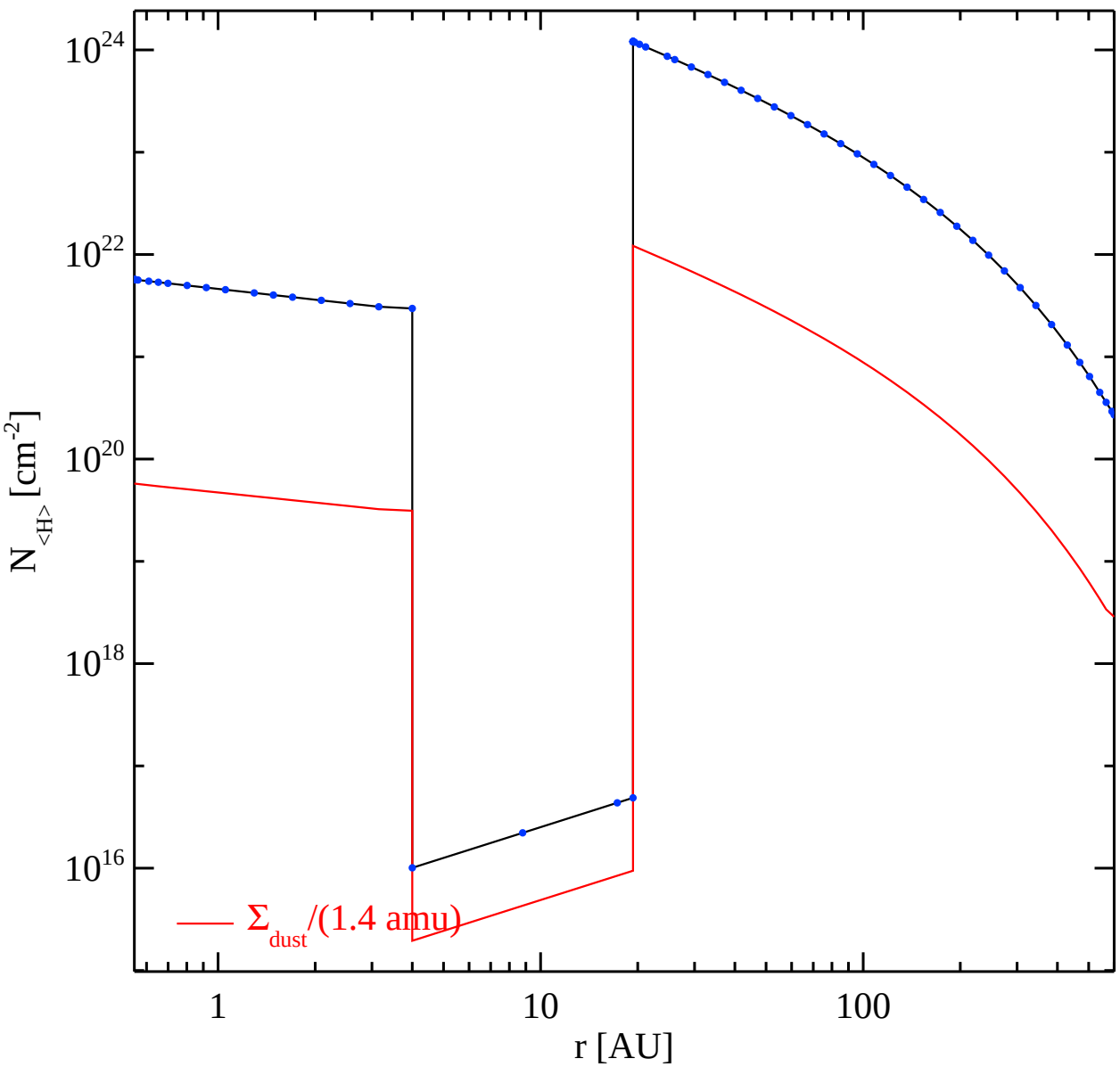
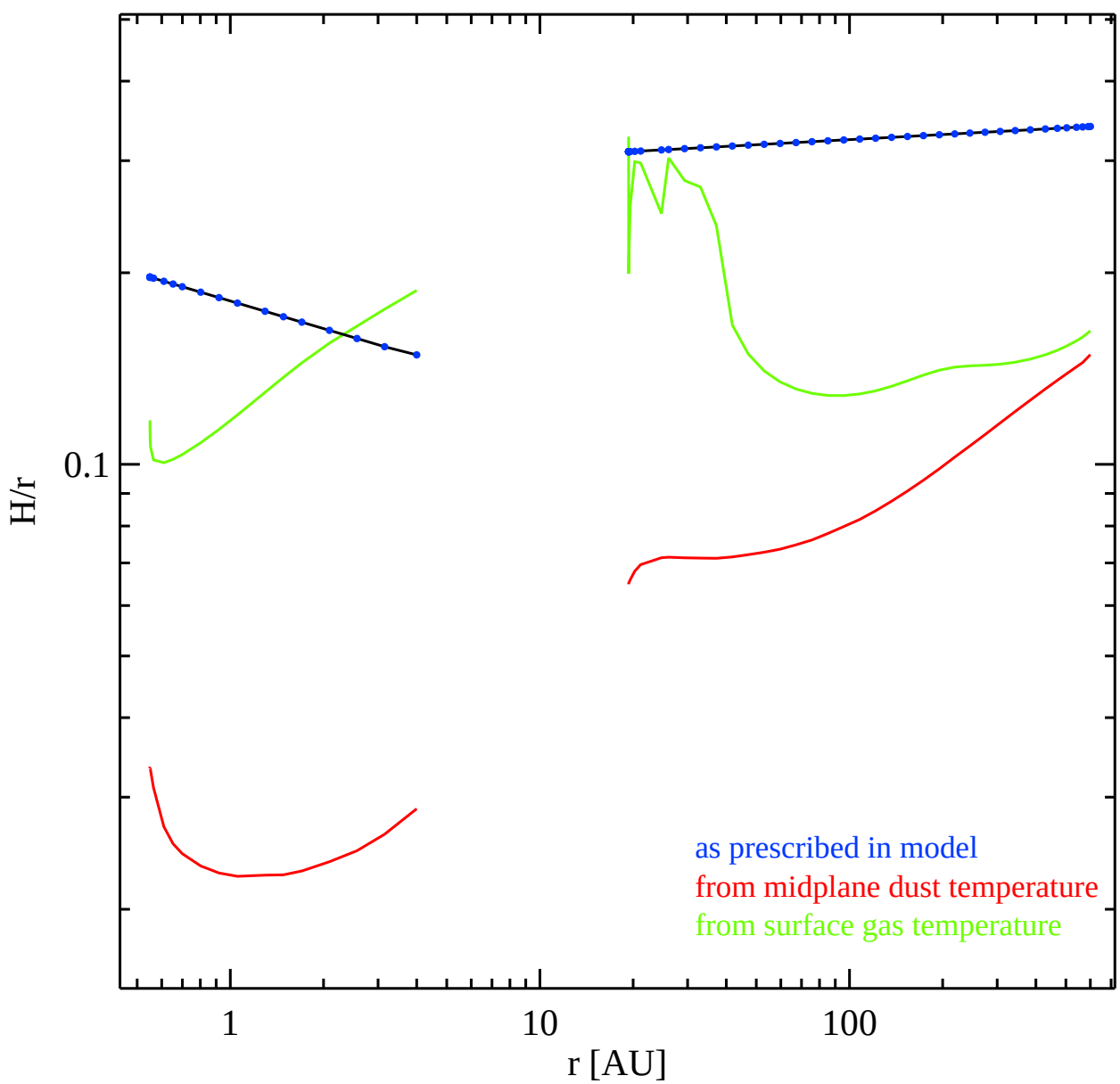

4
6
8
10
12
log n<H> [cm-3]
0.8
0.6
0.4
0.2
0.0
z / r
1
10
100
r [AU]

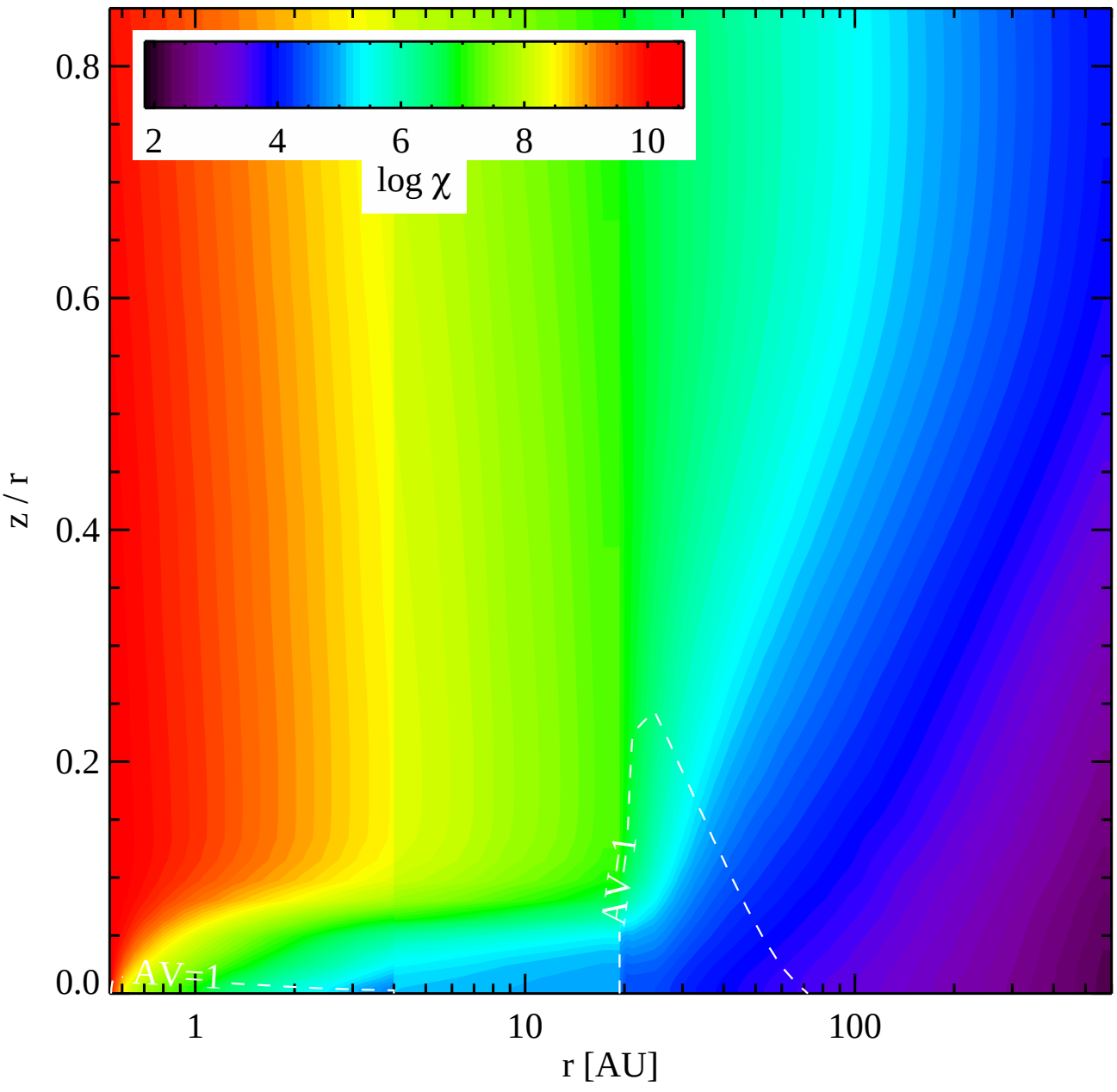

-28 -26 -24 -22 -20 -18 -16
log ρ dust [g/cm3]
0.8
0.6
0.4
0.2
0.0
z / r
1
10
100
r [AU]
A V,rad =1
A V,rad =1
A V =1
0.01
0.01

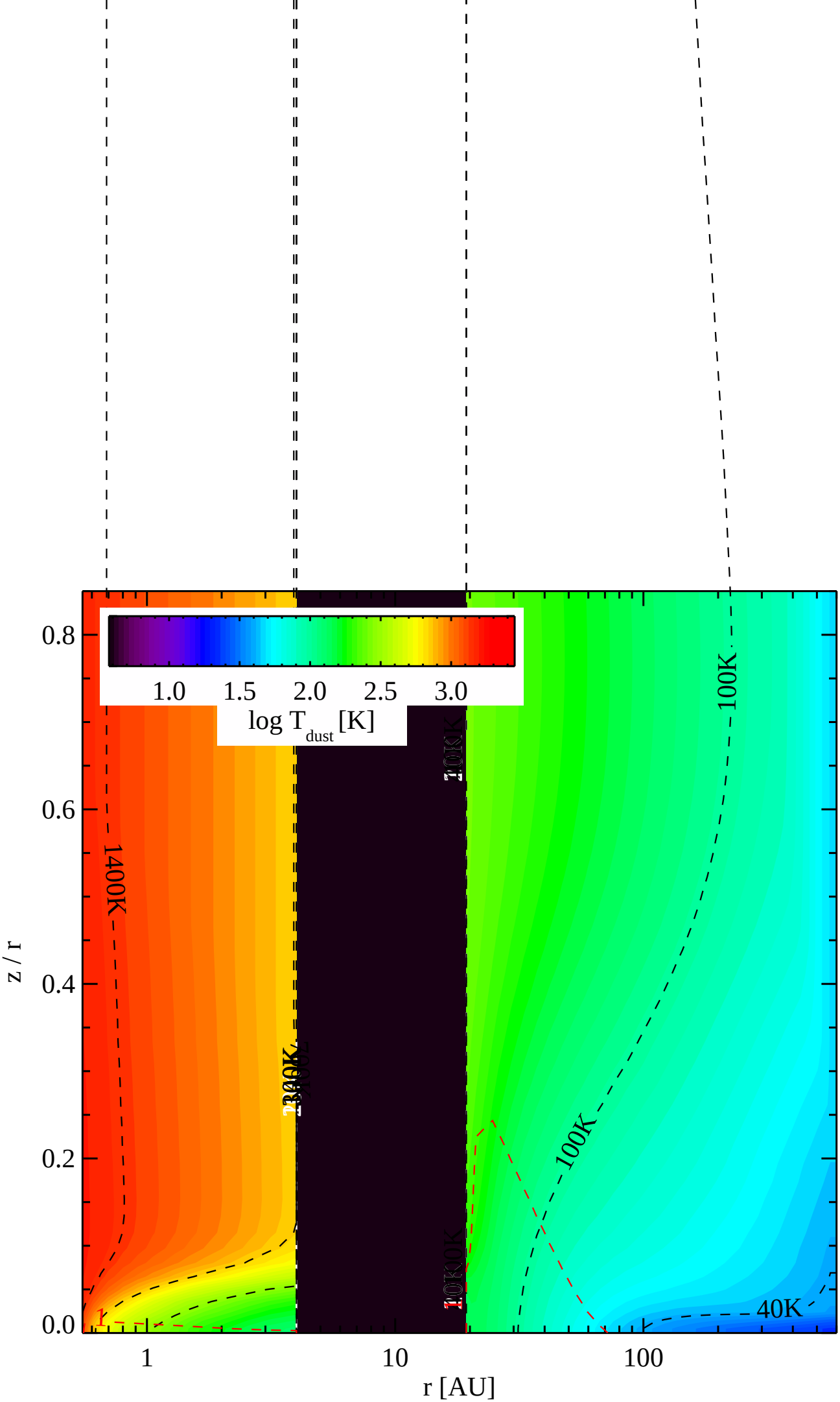

0.8
0.6
0.4
0.2
0.0
z / r
2
4
6
8
log gas/dust
1
10
100
r [AU]

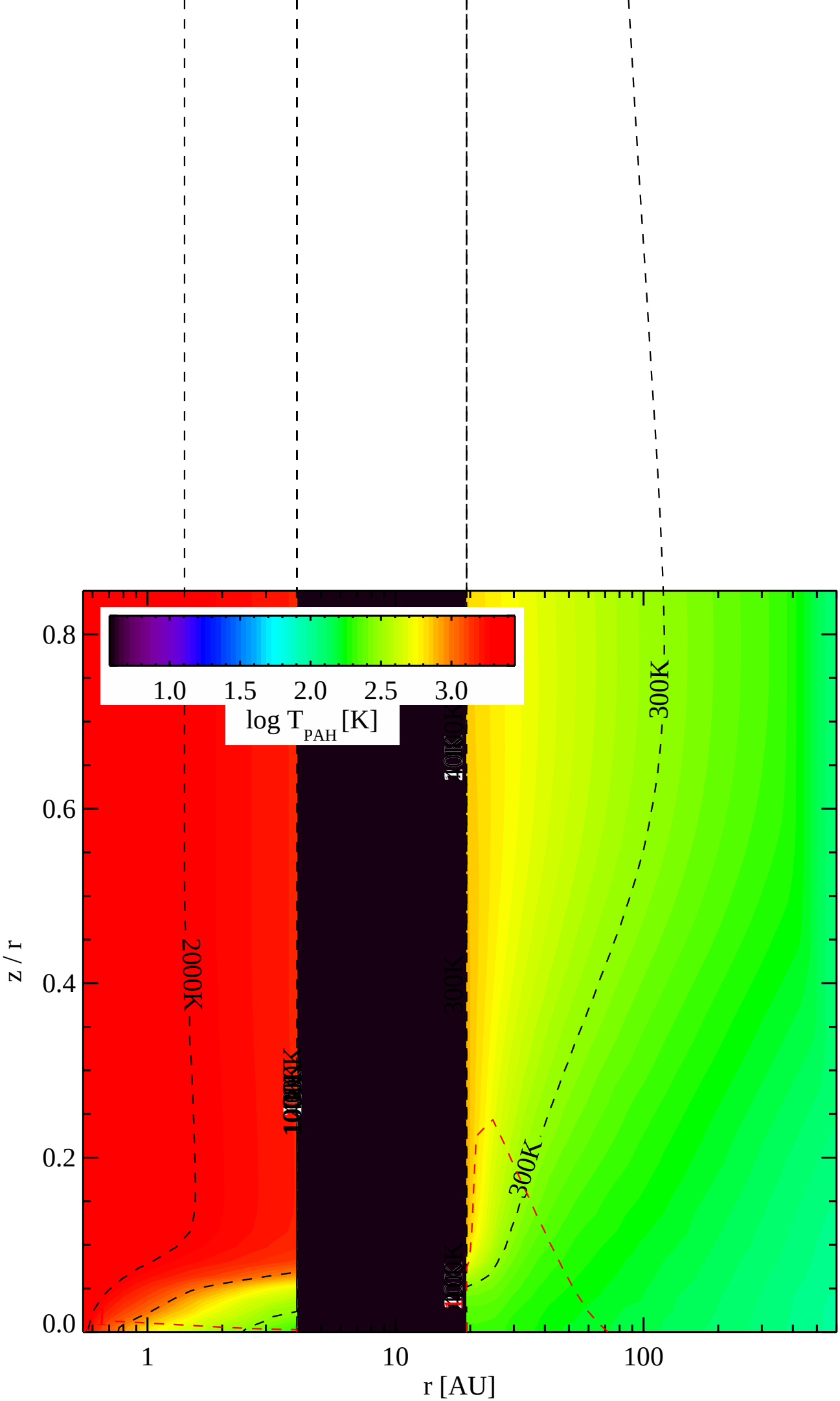

0.8
0.6
0.4
0.2
0.0
z / r
-1.5
-1.0
-0.5
0.0
0.5
log <a^3>^1/3 [mic]
1
10
100
r [AU]


10^{24}
10^{22}
10^{20}
10^{18}
10^{16}
$N_{<H>}$ [cm^{-2}]
Σ_{dust}/(1.4 amu)
1
10
100
r [AU]

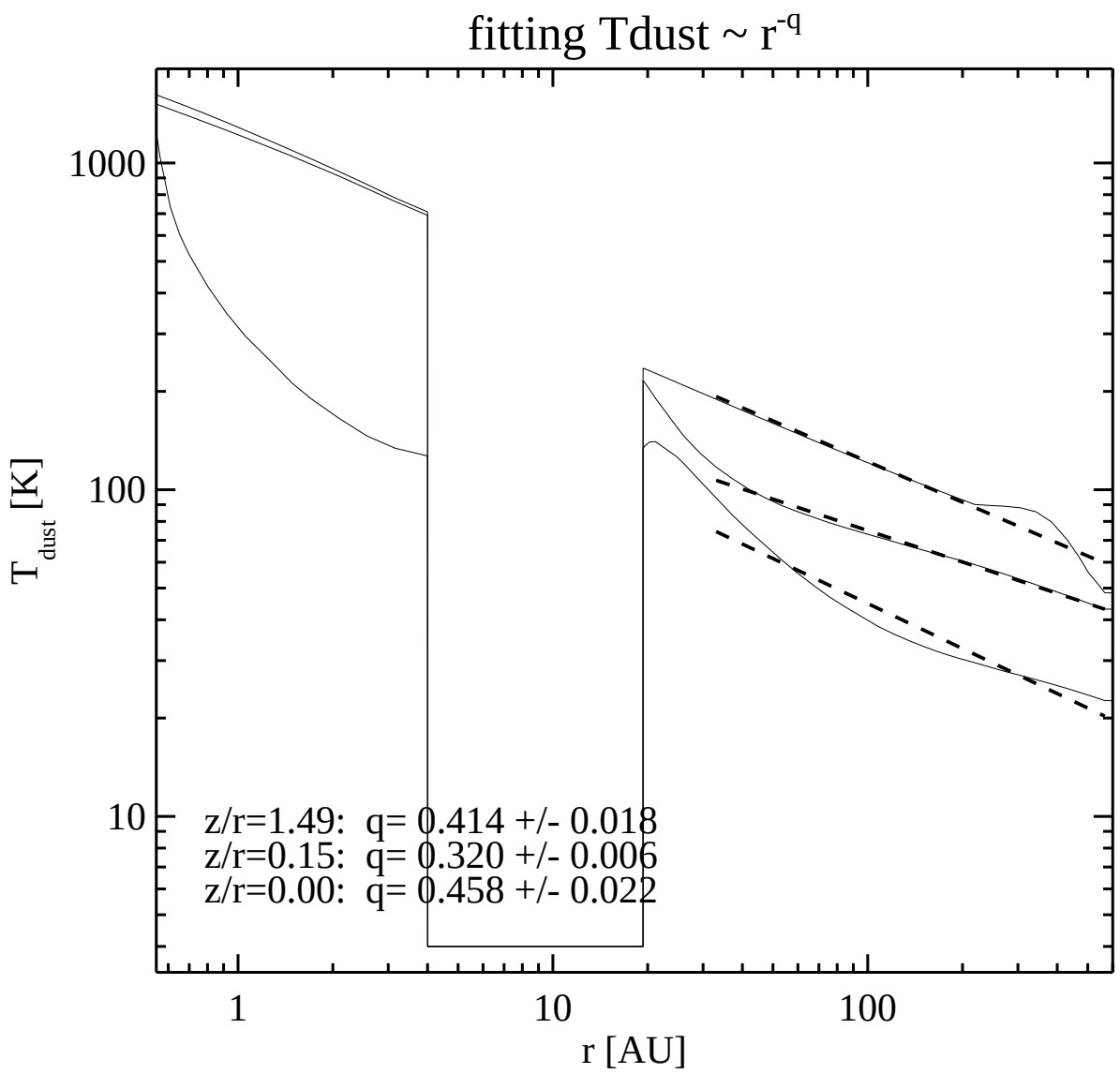

H/r
0.1
1
10
100
r [AU]
as prescribed in model
from midplane dust temperature
from surface gas temperature

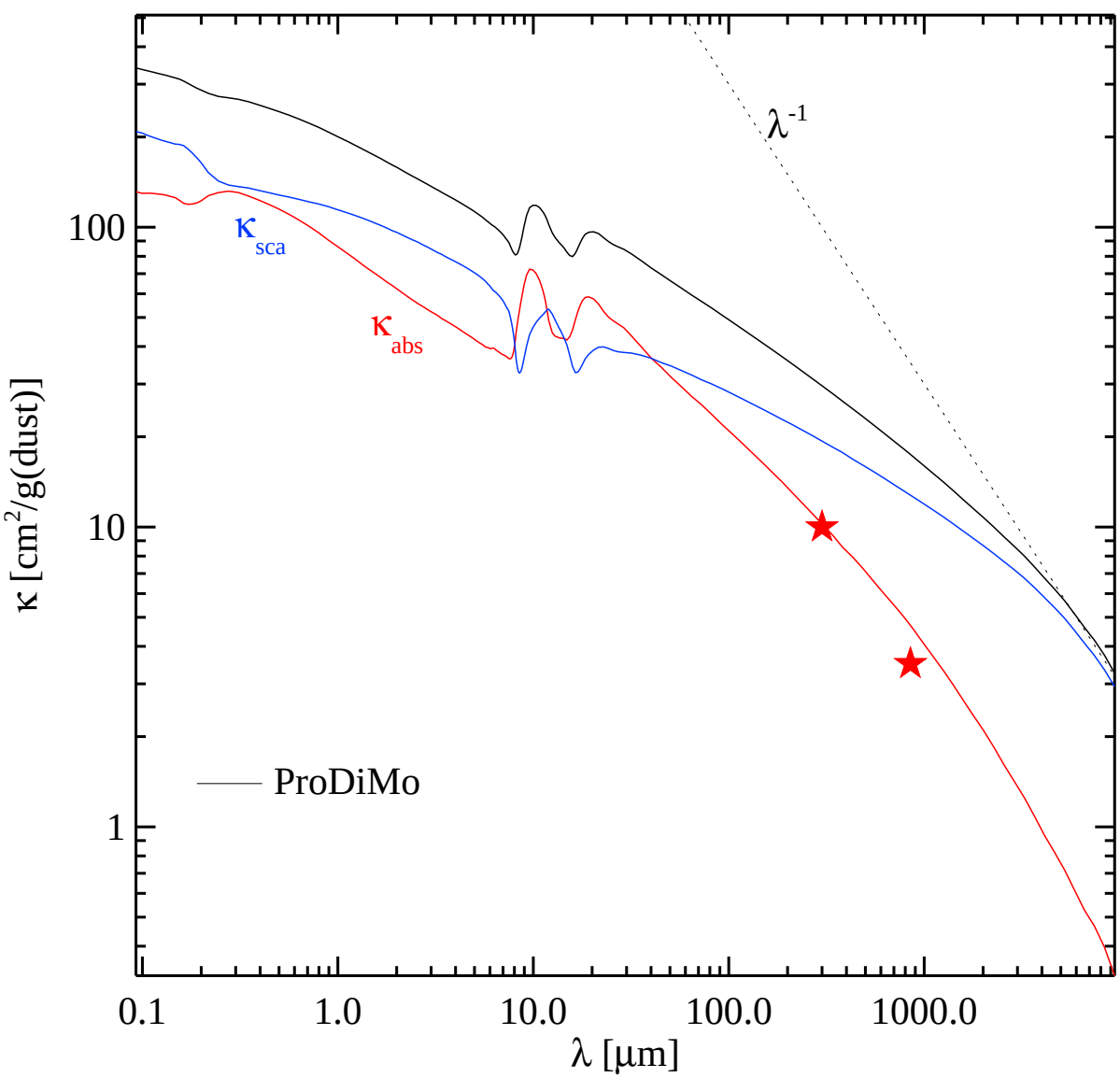

0.8
0.6
0.4
0.2
0.0
z / r
2
4
6
8
10
log χ
AV=1
AV=1
1
10
100
r [AU]

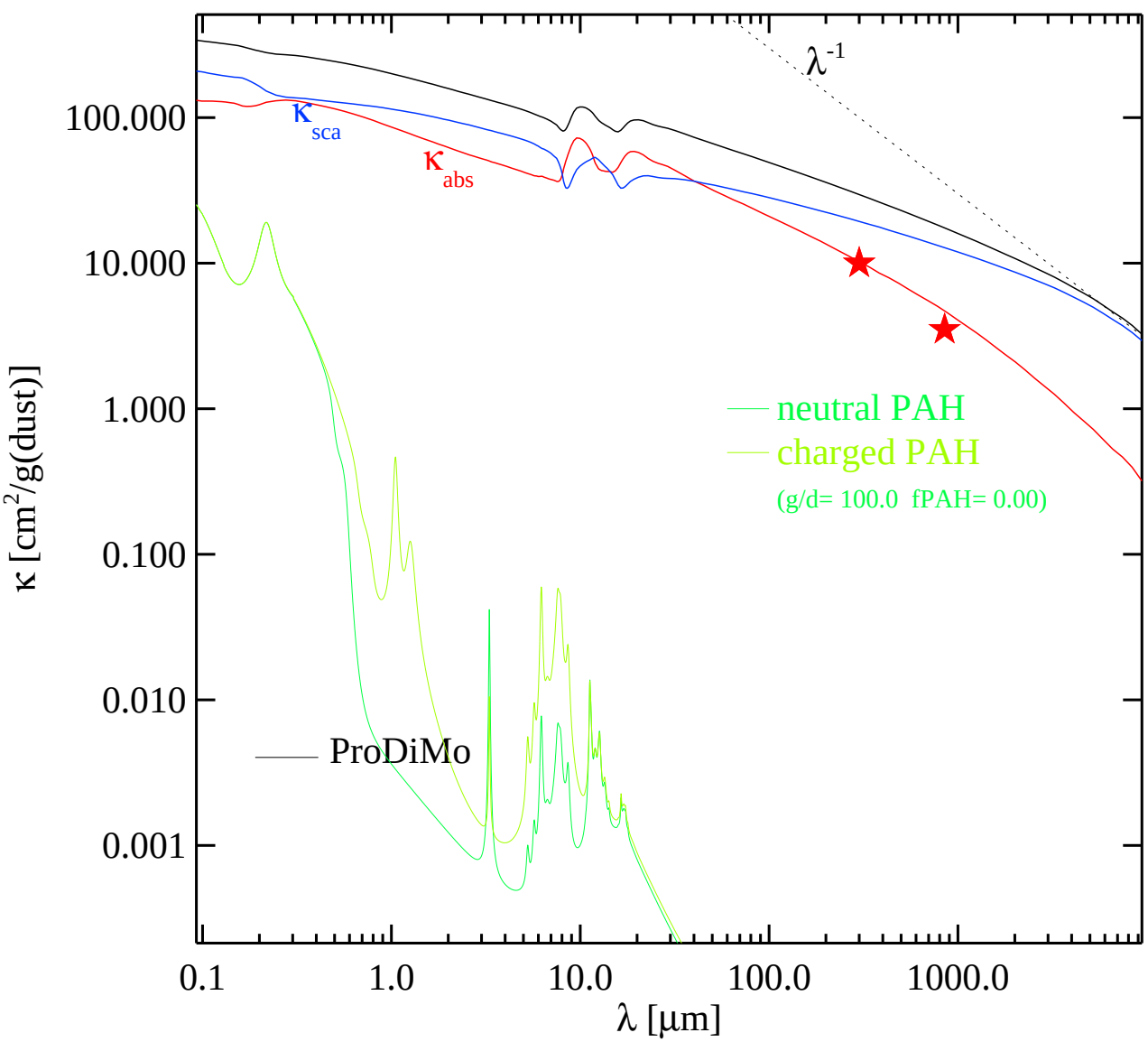

1.0
1.5
2.0
2.5
3.0
log T dust [K]
1400K
1400K
1400K
100K
100K
40K
10K
10K
10K
1
0.0
0.2
0.4
0.6
0.8
z / r
1
10
100
r [AU]

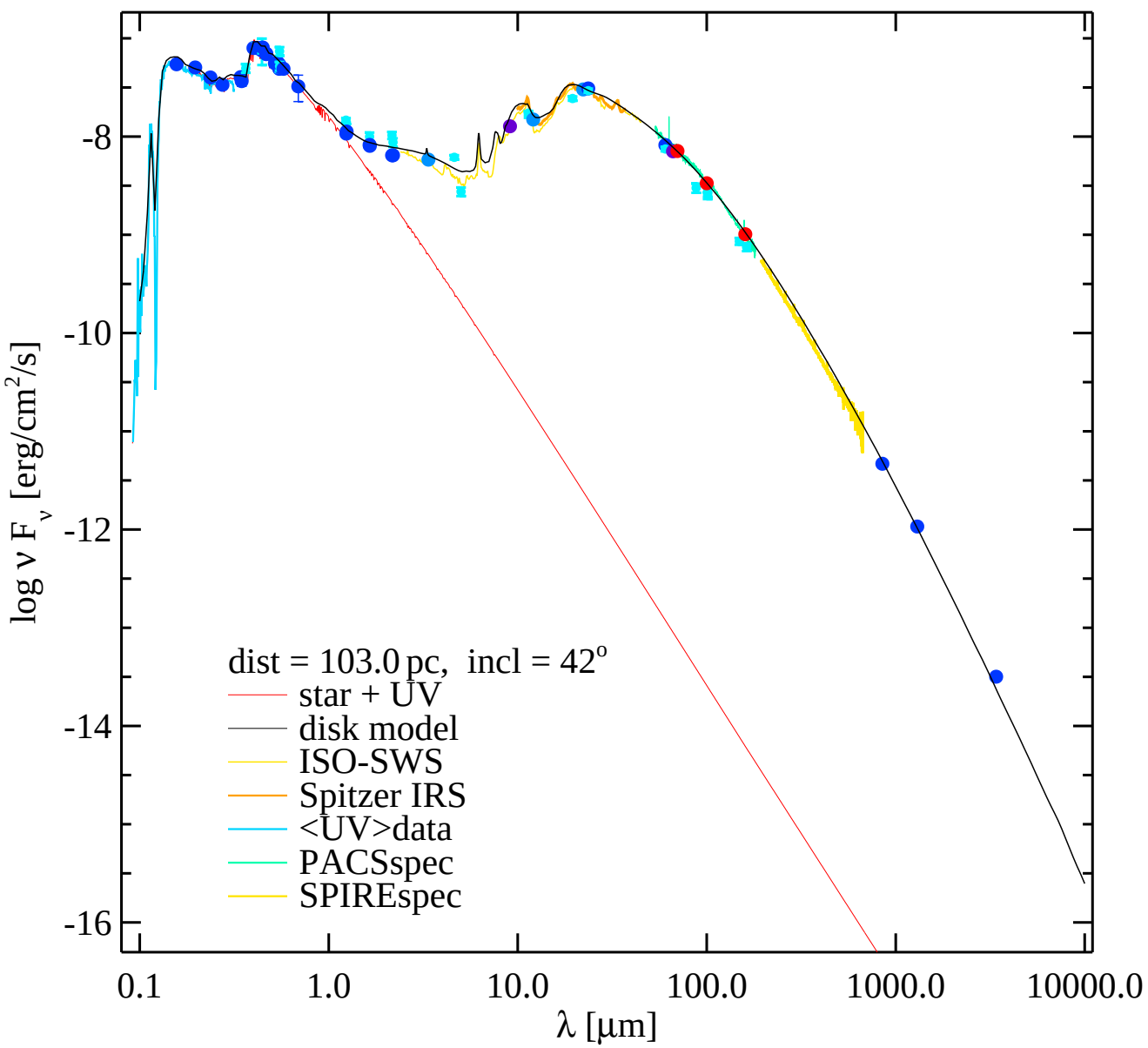


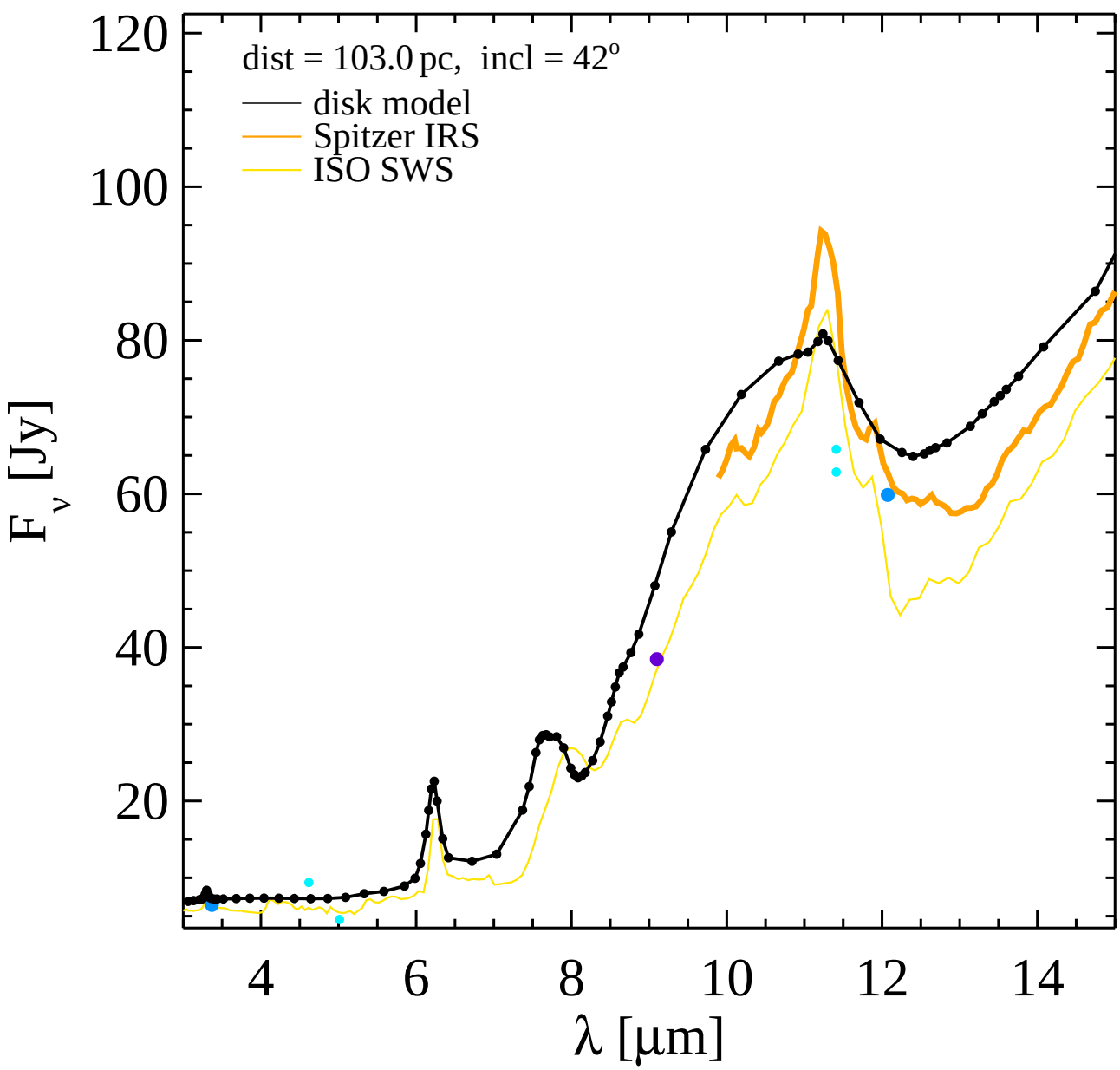
1.0
1.5
2.0
2.5
3.0
log T_PAH [K]
0.8
0.6
0.4
0.2
0.0
z / r
1
10
100
r [AU]
2000K
1000K
10K
300K
300K
300K
10K

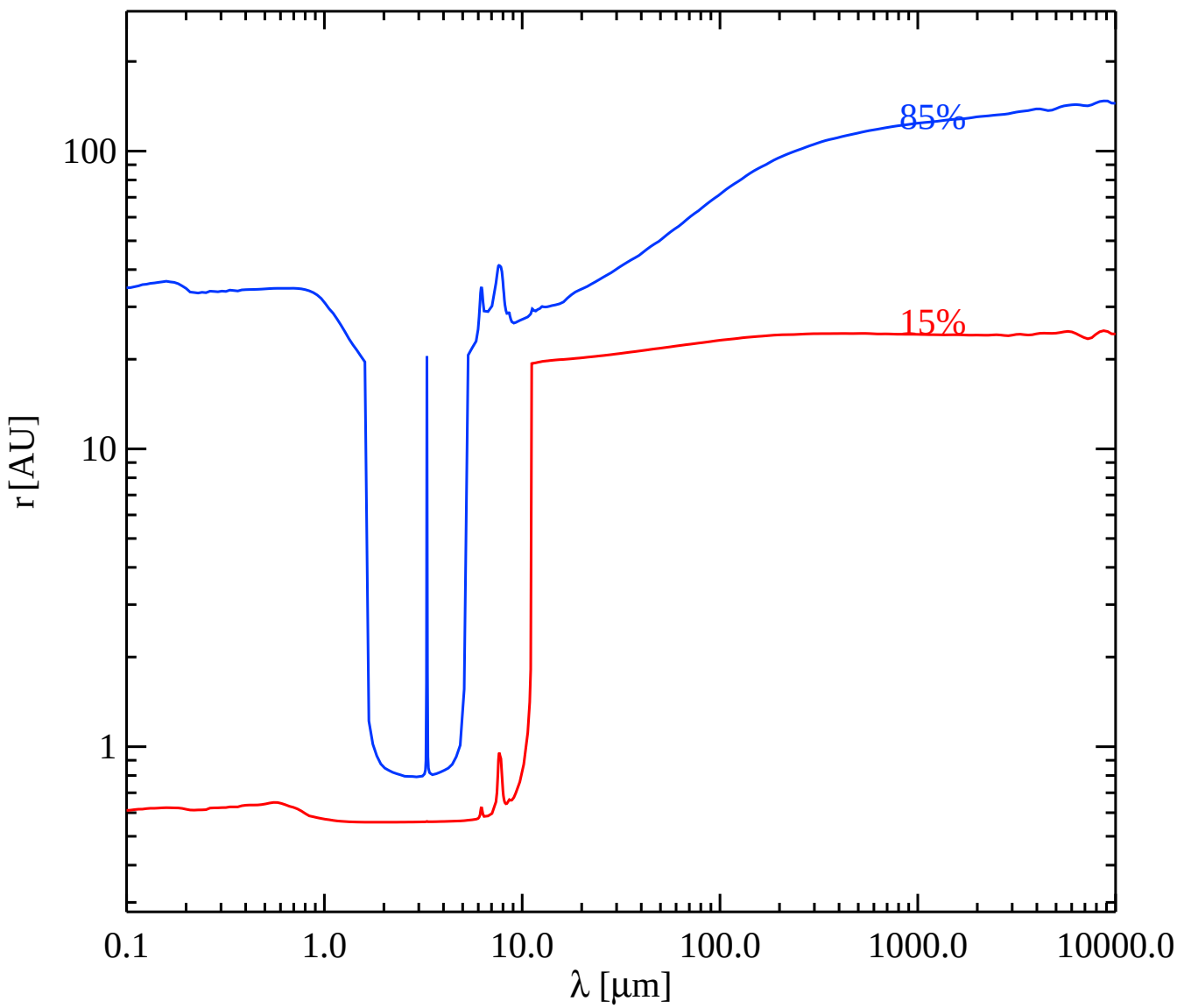

fitting Tdust ~ r^-q
1000
100
10
T dust [K]
1
10
100
r [AU]
z/r=1.49: q= 0.414 +/- 0.018
z/r=0.15: q= 0.320 +/- 0.006
z/r=0.00: q= 0.458 +/- 0.022

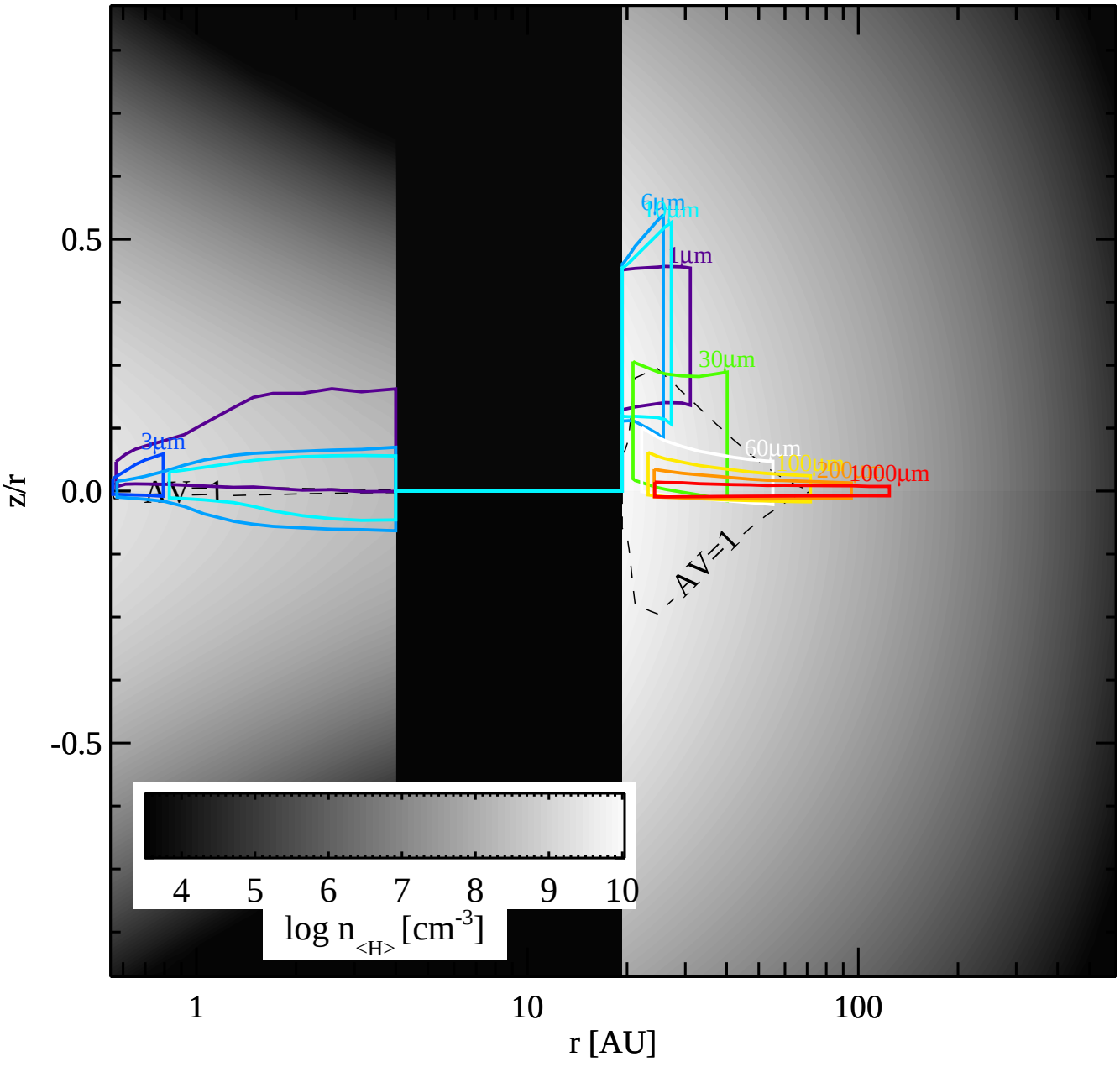

λ^-1
κ sca
κ abs
ProDiMo
100
10
1
κ [cm²/g(dust)]
0.1
1.0
10.0
100.0
1000.0
λ [μm]

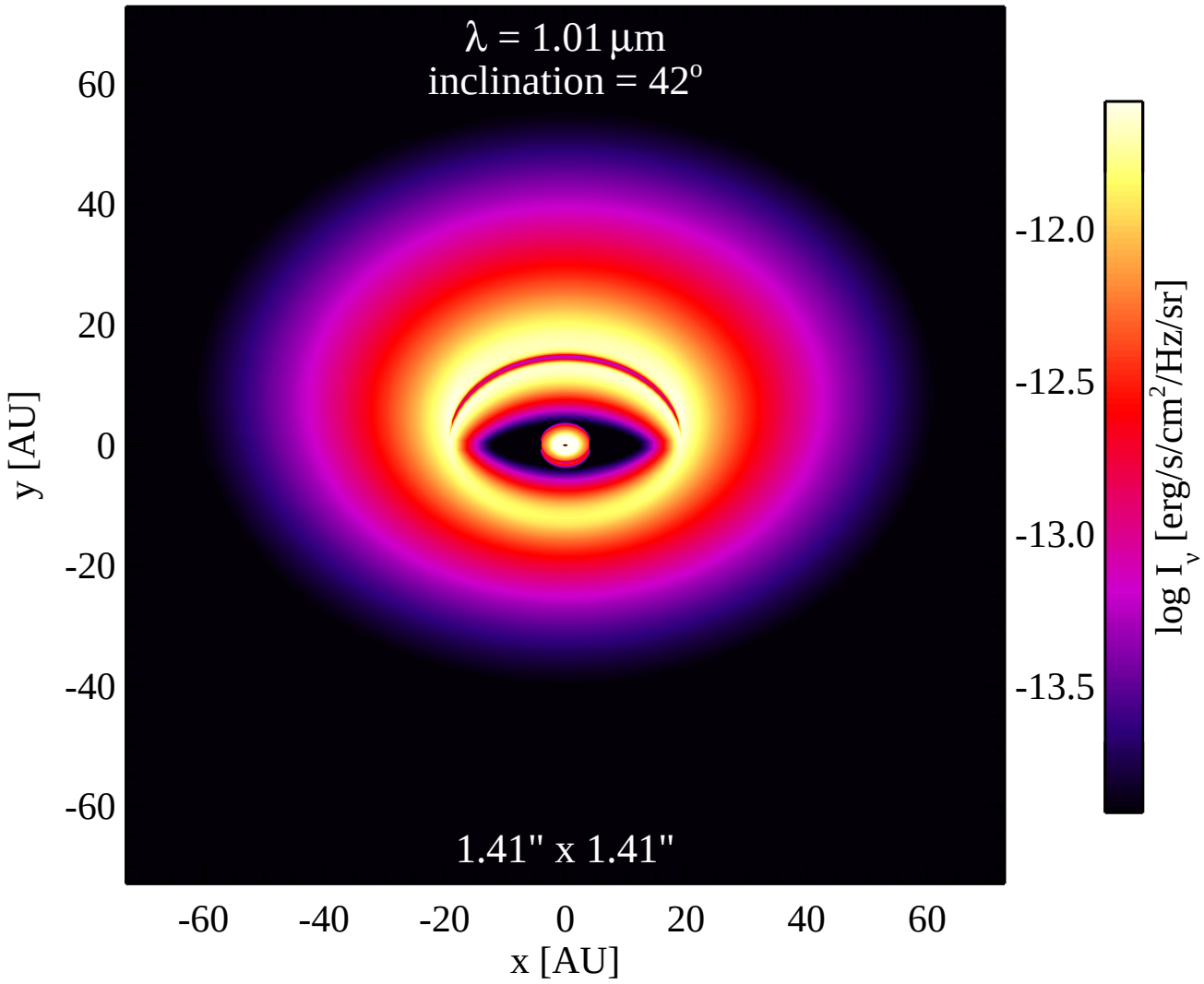

λ^-1
κ sca
κ abs
neutral PAH
charged PAH
(g/d= 100.0 fPAH= 0.00)
ProDiMo
100.000
10.000
1.000
0.100
0.010
0.001
κ [cm²/g(dust)]
0.1
1.0
10.0
100.0
1000.0
λ [μm]

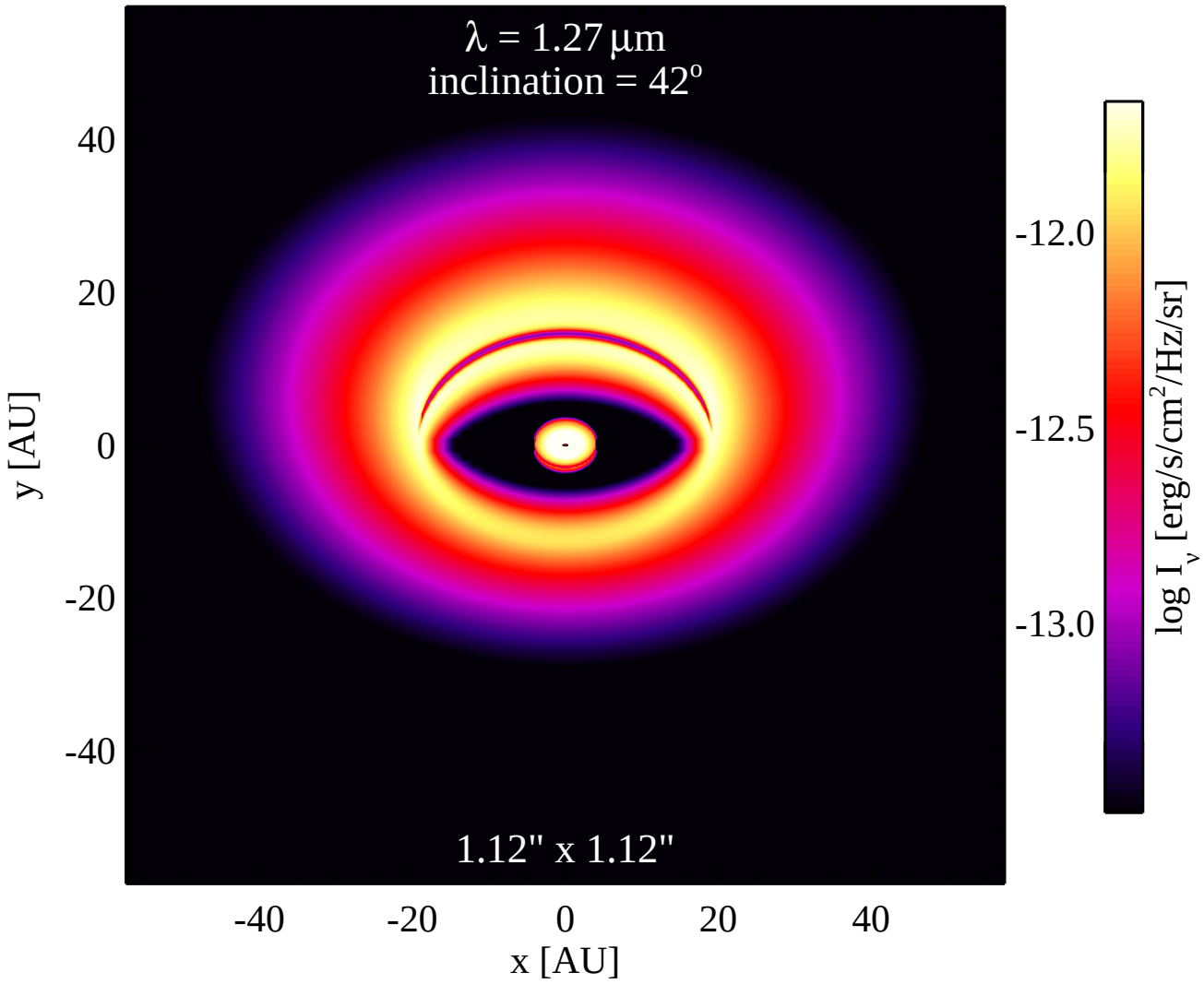

-8
-10
-12
-14
-16
log ν F_ν [erg/cm²/s]
0.1
1.0
10.0
100.0
1000.0
10000.0
λ [μm]
dist = 103.0 pc, incl = 42°
star + UV
disk model
ISO-SWS
Spitzer IRS
<UV>data
PACSspec
SPIREspec

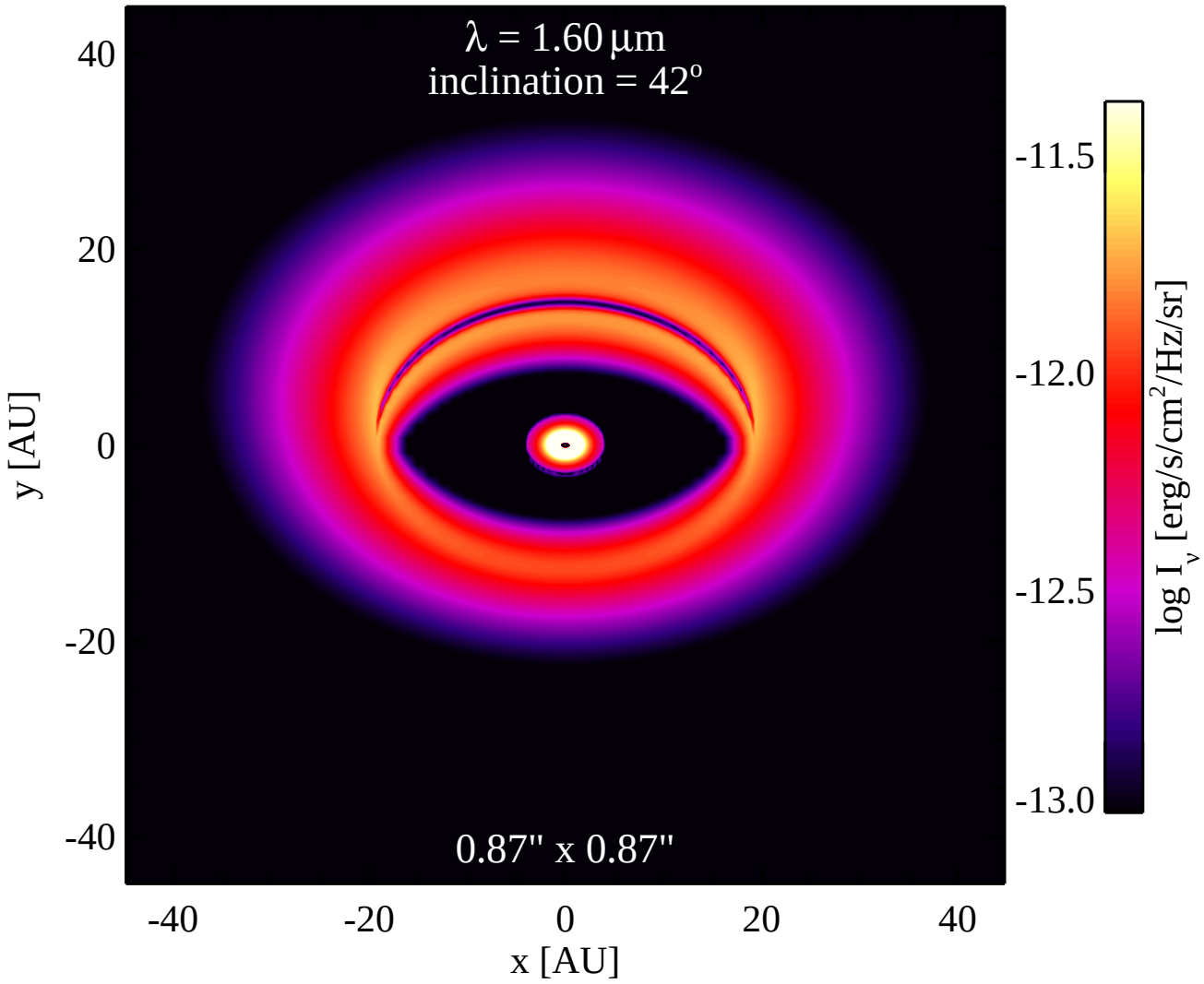

dist = 103.0 pc, incl = 42°
disk model
Spitzer IRS
ISO SWS
120
100
80
60
40
20
F_ν [Jy]
4
6
8
10
12
14
λ [μm]

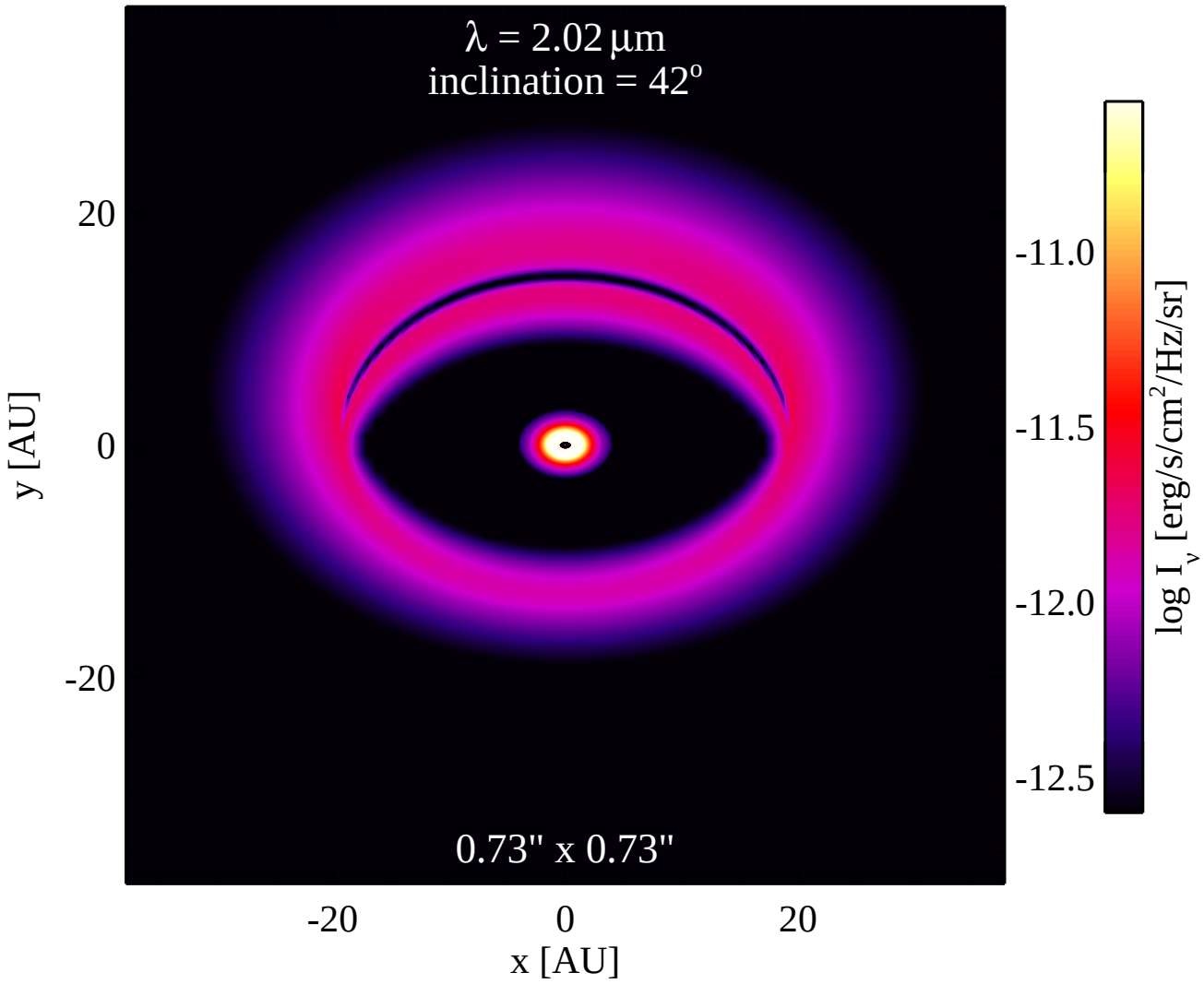

85%
15%
100
10
1
r [AU]
0.1
1.0
10.0
100.0
1000.0
10000.0
λ [μm]

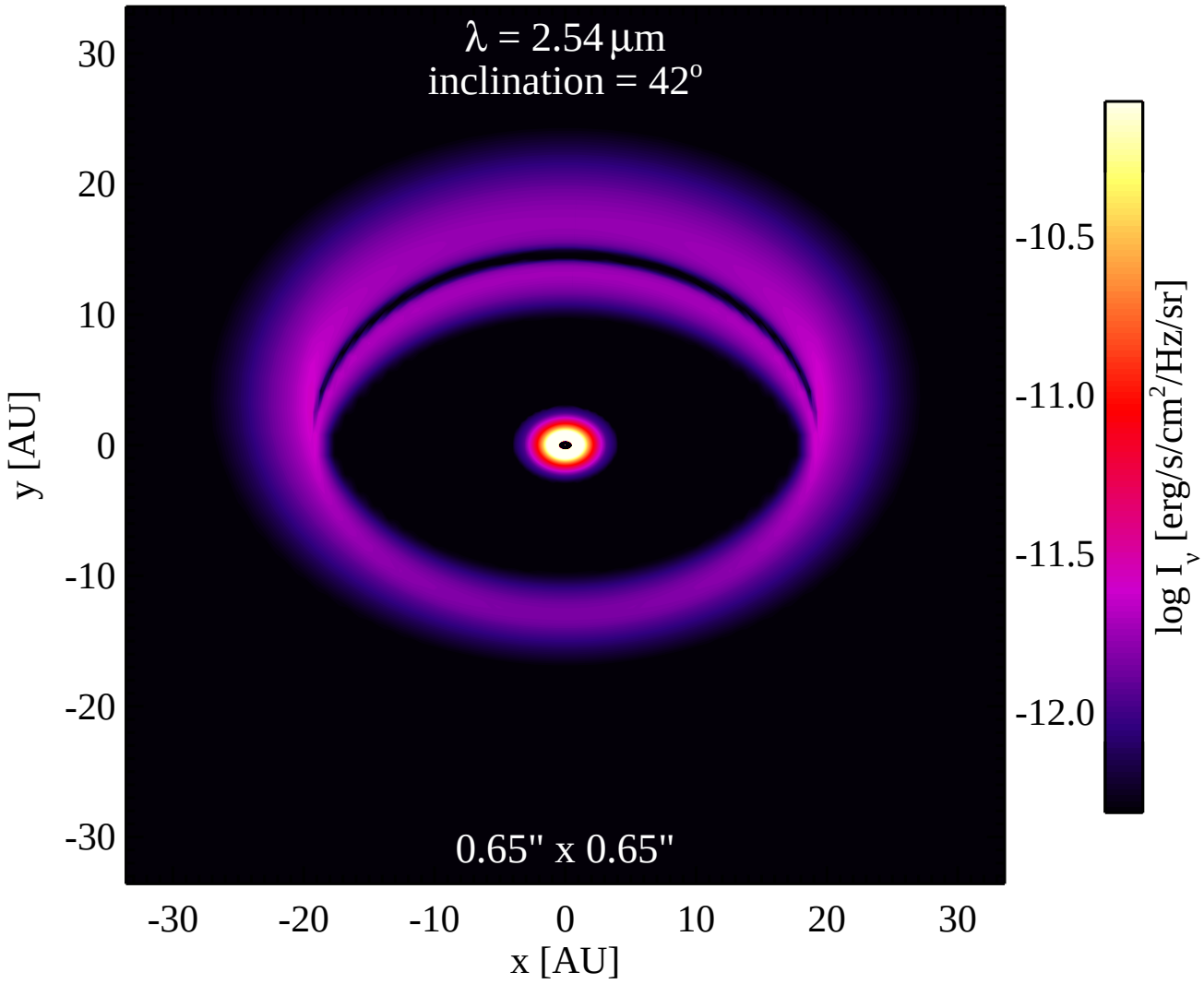

z/r
0.5
0.0
-0.5
1
10
100
r [AU]
3µm
6µm
1µm
30µm
60µm
100µm
200µm
1000µm
AV=1
AV=1
4
5
6
7
8
9
10
log n <H> [cm-3]

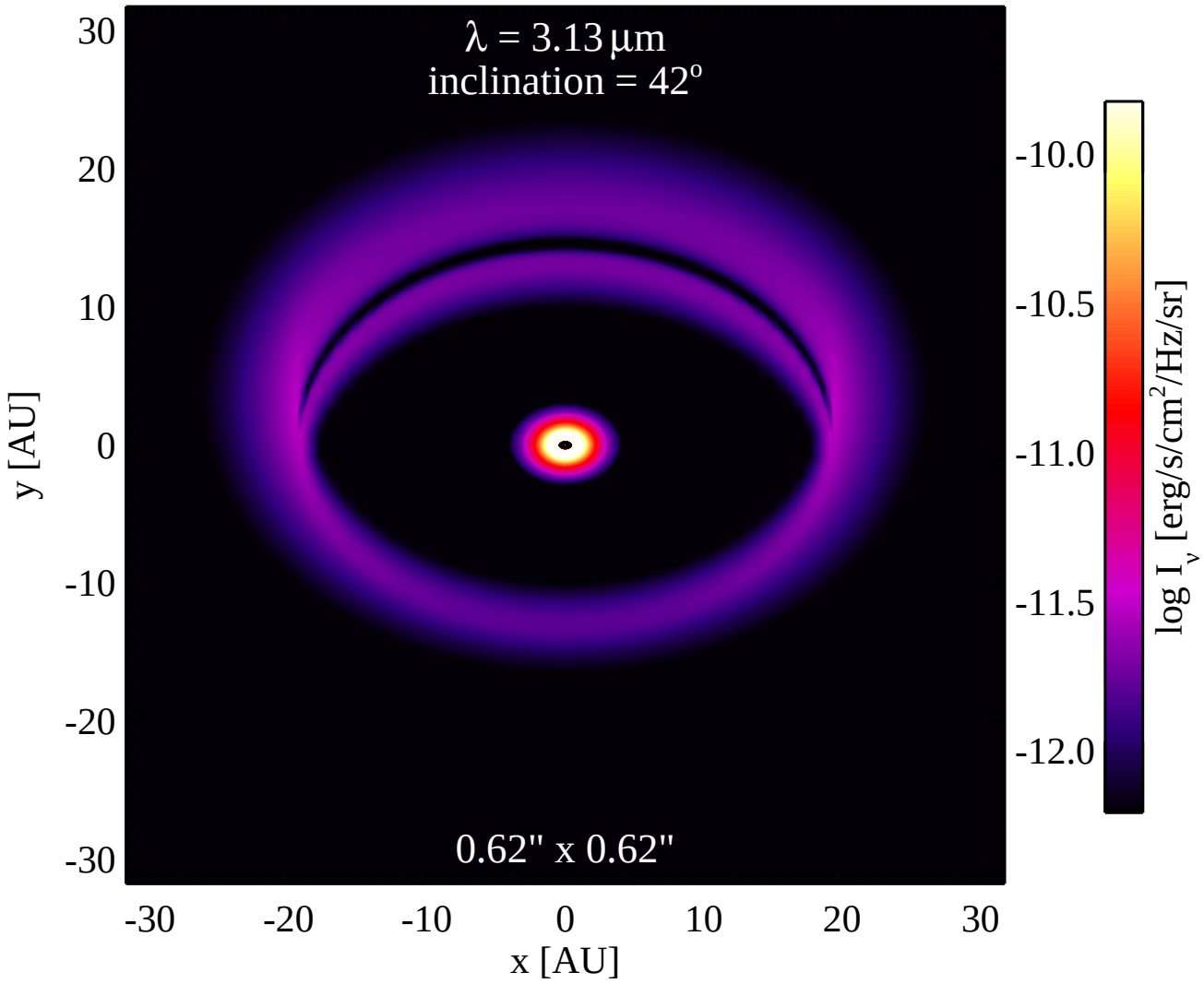

λ = 1.01 μm
inclination = 42°
1.41" x 1.41"
60
40
20
0
-20
-40
-60
y [AU]
-60
-40
-20
0
20
40
60
x [AU]
-12.0
-12.5
-13.0
-13.5
log I_ν [erg/s/cm²/Hz/sr]

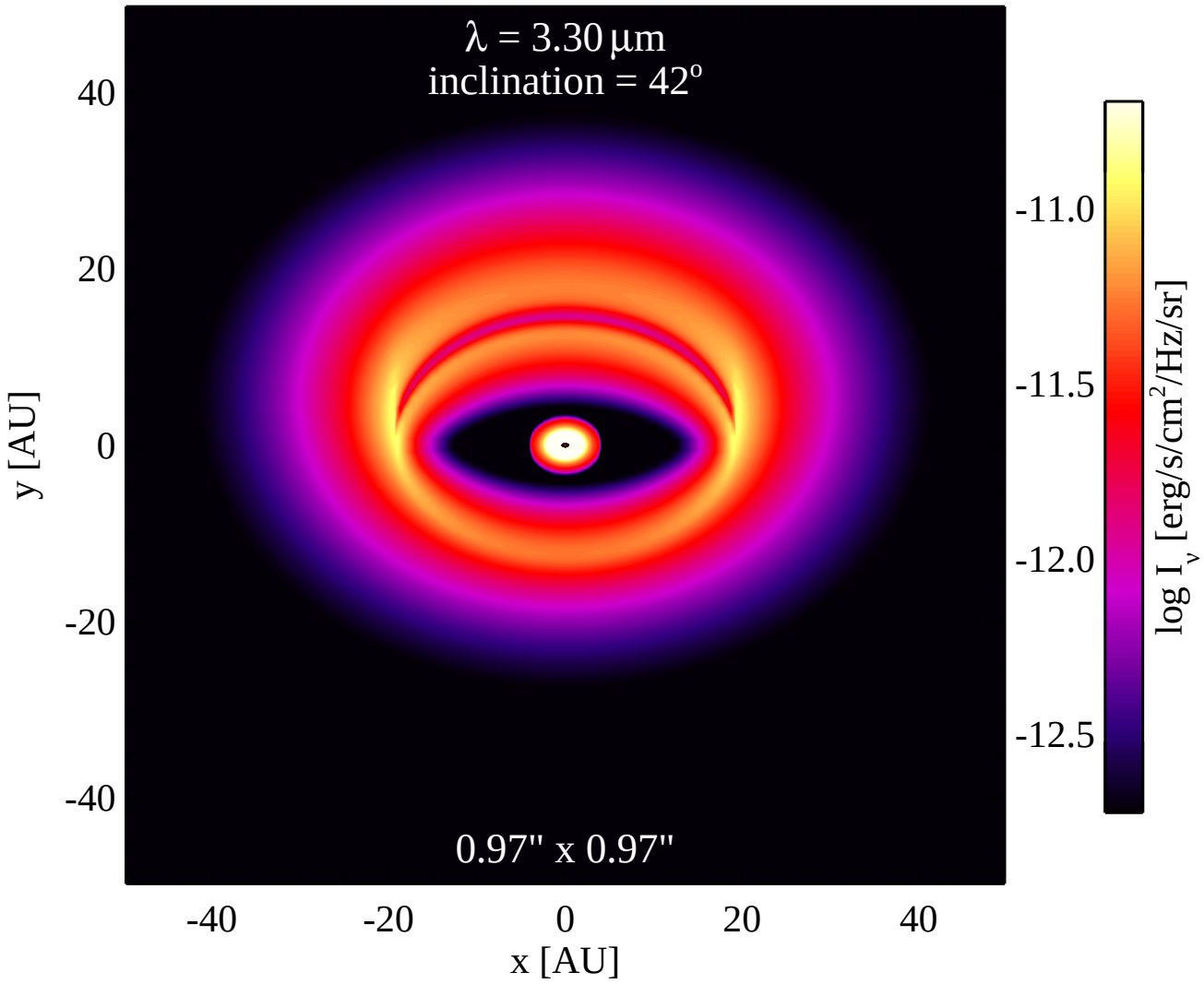

λ = 1.27 μm
inclination = 42°
1.12" x 1.12"
40
20
0
-20
-40
y [AU]
-40
-20
0
20
40
x [AU]
-12.0
-12.5
-13.0
log I_ν [erg/s/cm²/Hz/sr]

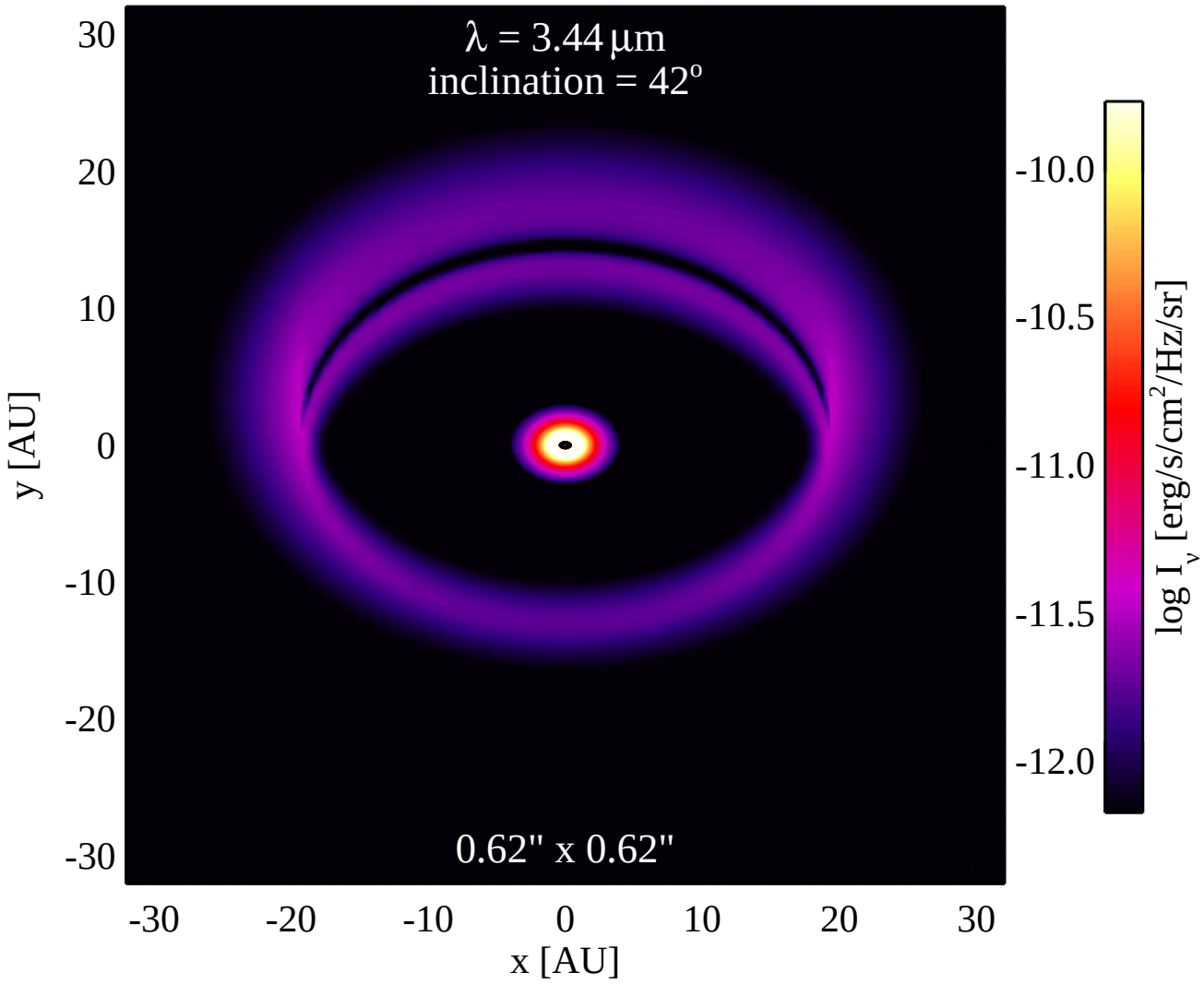

λ = 1.60 μm
inclination = 42°
0.87" x 0.87"
40
20
0
-20
-40
y [AU]
-40
-20
0
20
40
x [AU]
-11.5
-12.0
-12.5
-13.0
log I_ν [erg/s/cm²/Hz/sr]

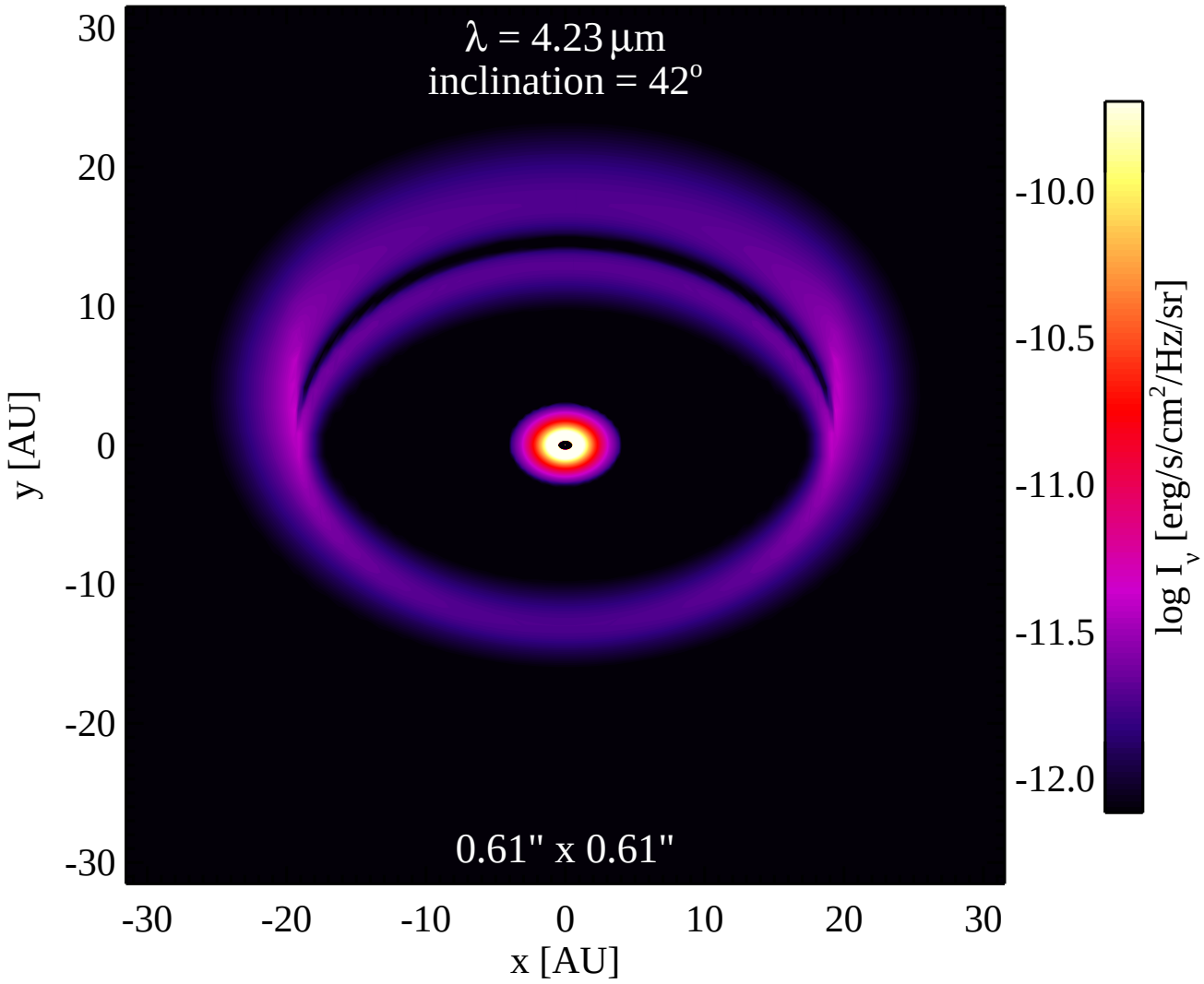

λ = 2.02 μm
inclination = 42°
0.73" x 0.73"
20
0
-20
y [AU]
-20
0
20
x [AU]
-11.0
-11.5
-12.0
-12.5
log I_ν [erg/s/cm²/Hz/sr]

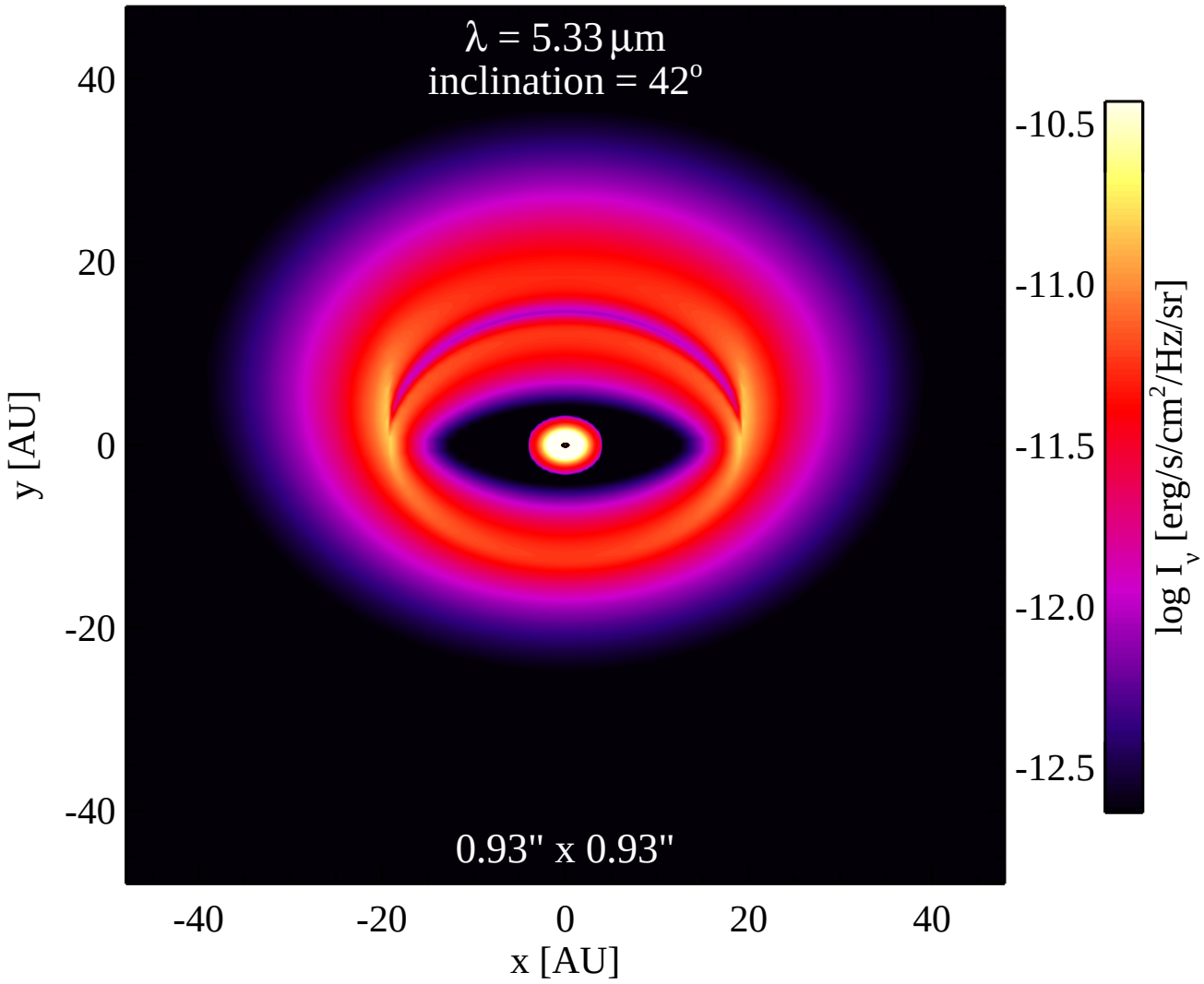

λ = 2.54 μm
inclination = 42°
0.65" x 0.65"
30
20
10
0
-10
-20
-30
y [AU]
-30
-20
-10
0
10
20
30
x [AU]
-10.5
-11.0
-11.5
-12.0
log I_ν [erg/s/cm²/Hz/sr]

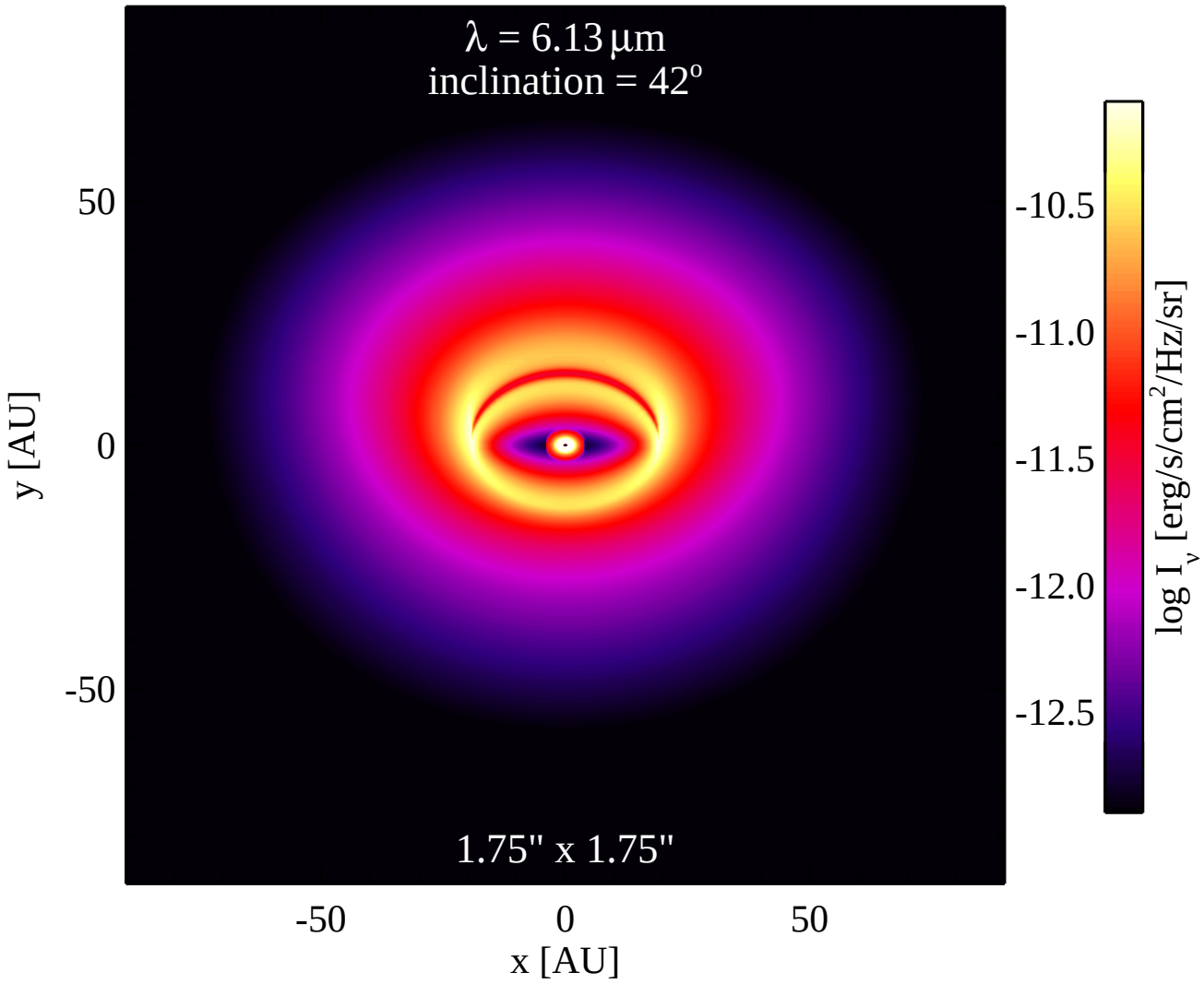

λ = 3.13 μm
inclination = 42°
0.62" x 0.62"
30
20
10
0
-10
-20
-30
y [AU]
-30
-20
-10
0
10
20
30
x [AU]
-10.0
-10.5
-11.0
-11.5
-12.0
log I_ν [erg/s/cm²/Hz/sr]

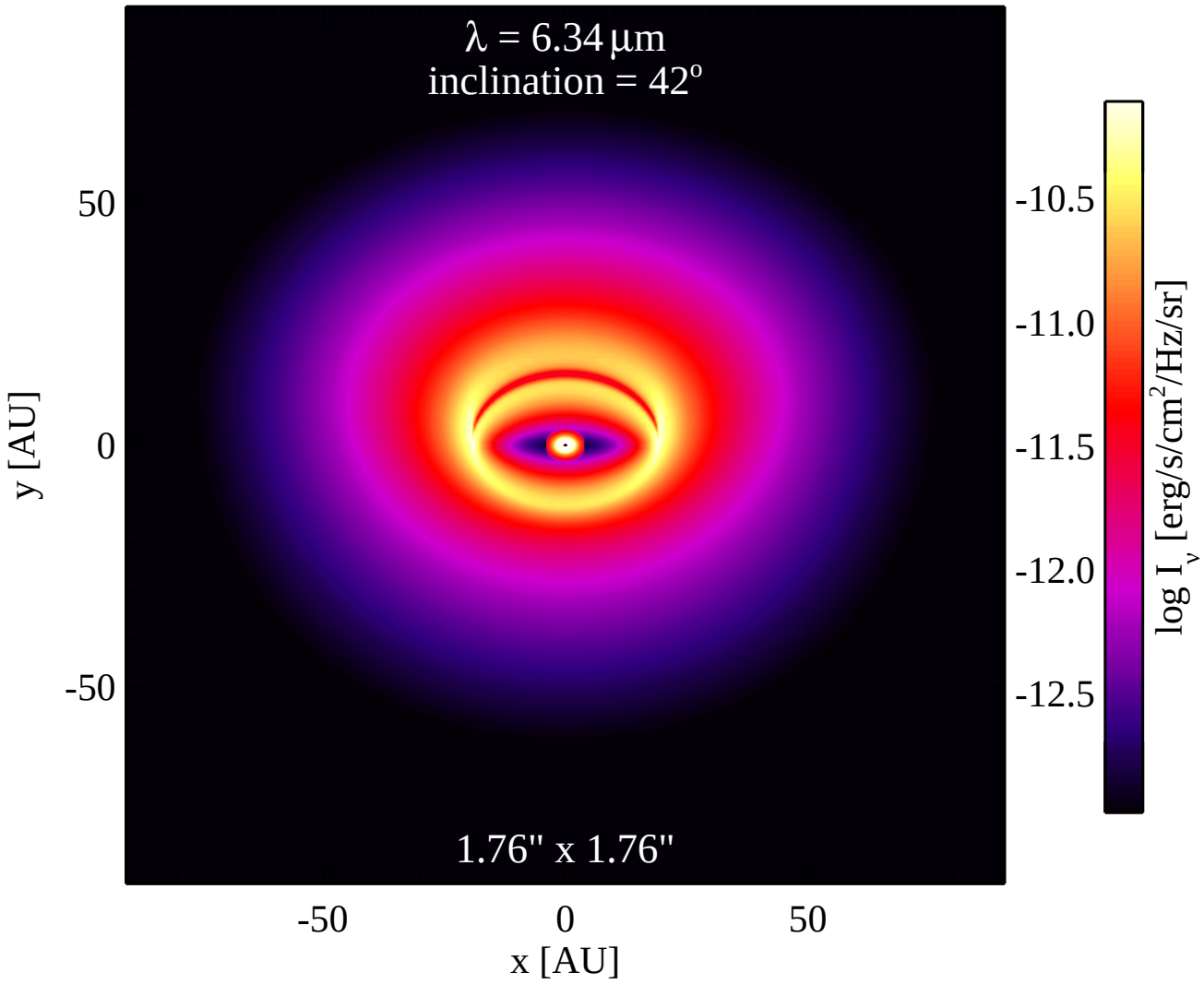

λ = 3.30 μm
inclination = 42°
0.97" x 0.97"
40
20
0
-20
-40
y [AU]
-40
-20
0
20
40
x [AU]
-11.0
-11.5
-12.0
-12.5
log I_ν [erg/s/cm²/Hz/sr]

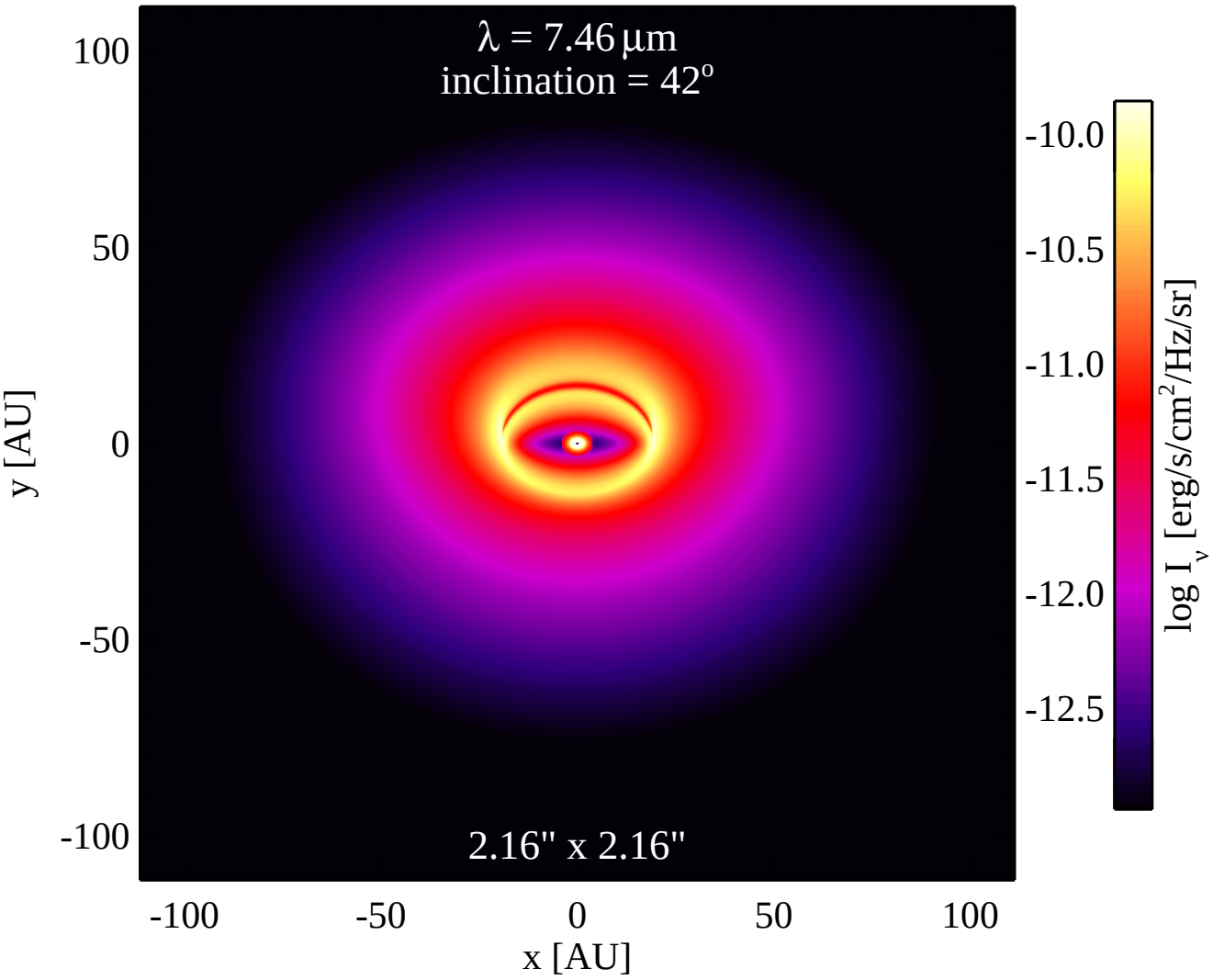

λ = 3.44 μm
inclination = 42°
0.62" x 0.62"
30
20
10
0
-10
-20
-30
y [AU]
-30
-20
-10
0
10
20
30
x [AU]
-10.0
-10.5
-11.0
-11.5
-12.0
log I_ν [erg/s/cm²/Hz/sr]

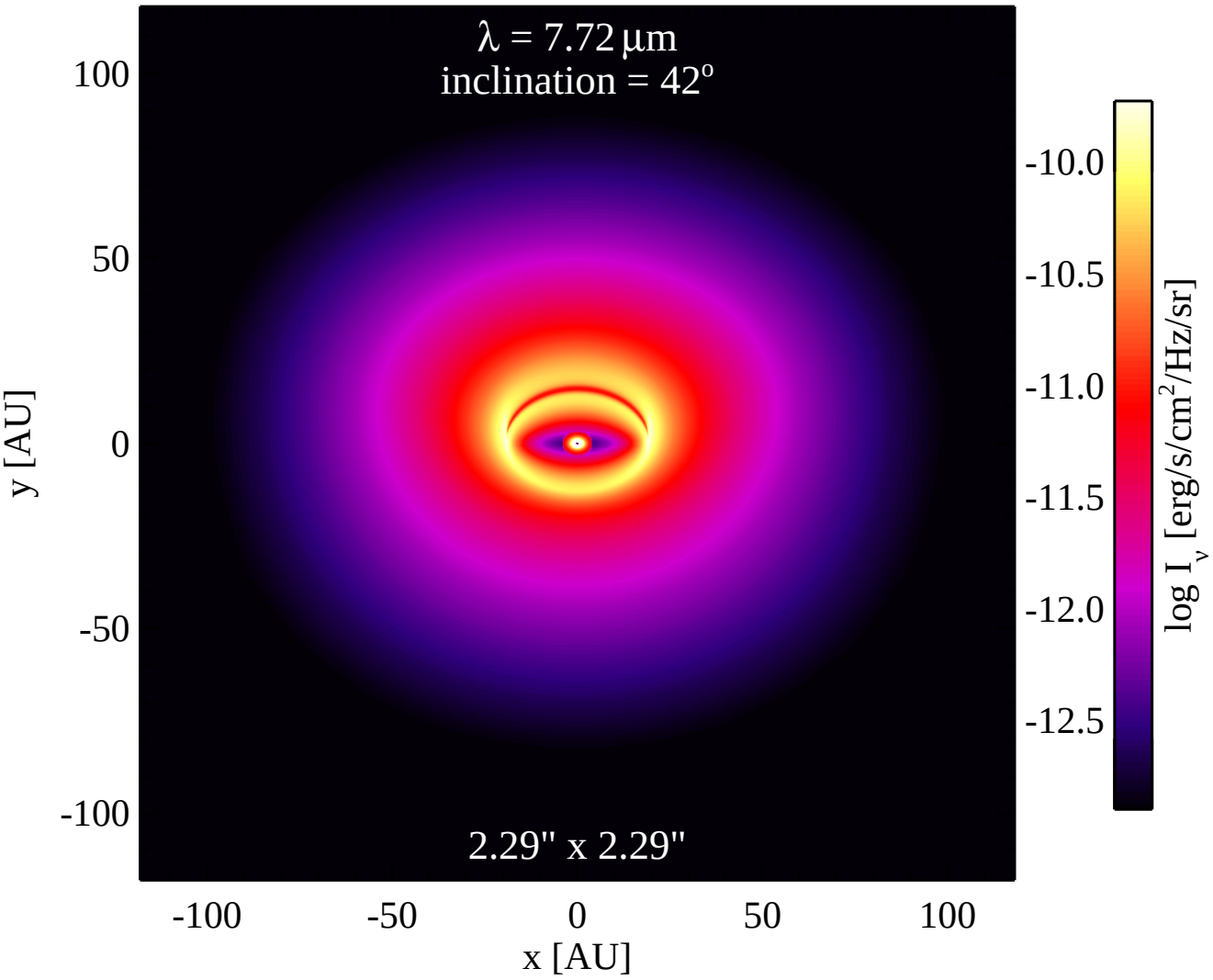

λ = 4.23 μm
inclination = 42°
0.61" x 0.61"
30
20
10
0
-10
-20
-30
y [AU]
-30
-20
-10
0
10
20
30
x [AU]
-10.0
-10.5
-11.0
-11.5
-12.0
log I_ν [erg/s/cm²/Hz/sr]

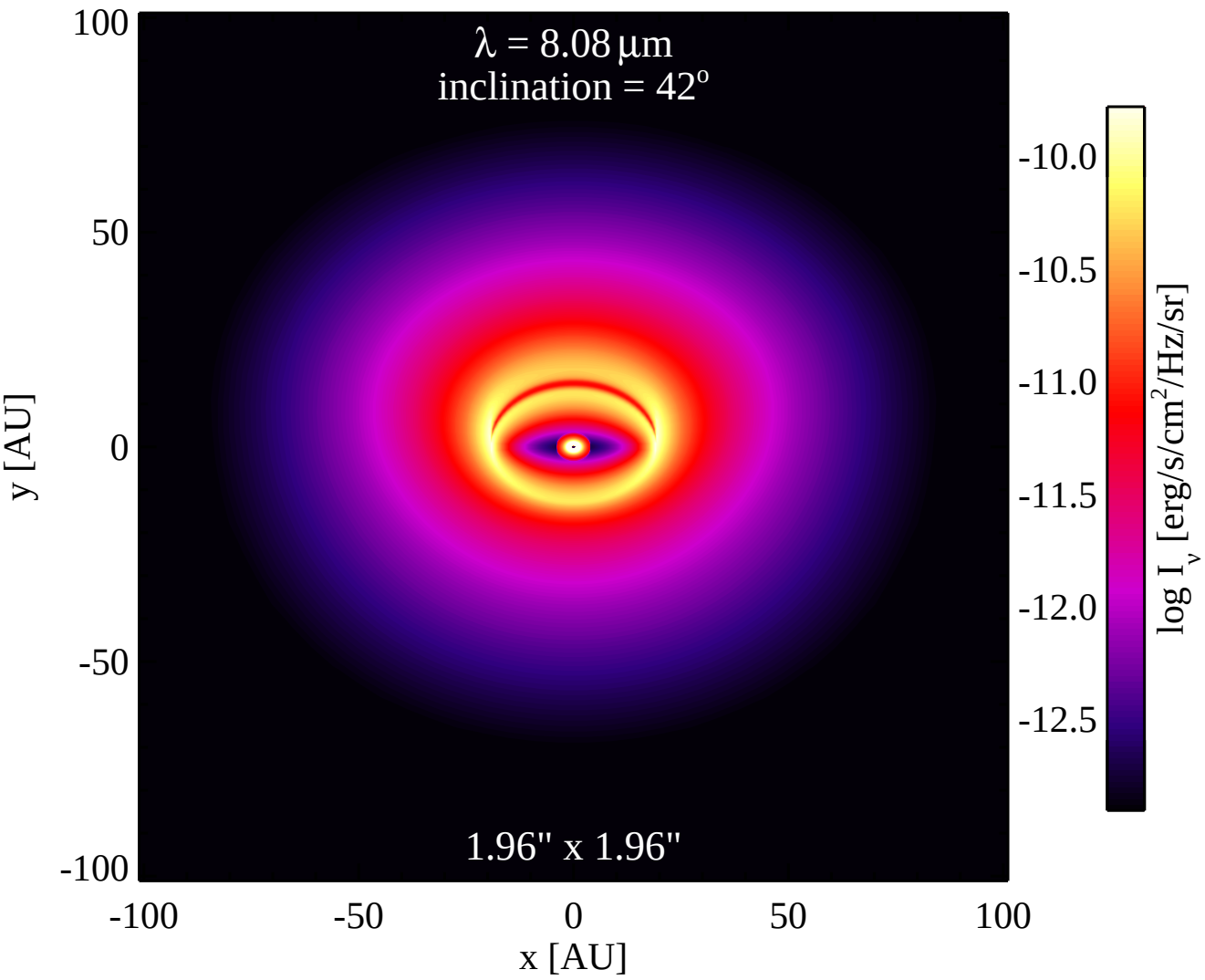

λ = 5.33 μm
inclination = 42°
0.93" x 0.93"
40
20
0
-20
-40
y [AU]
-40
-20
0
20
40
x [AU]
-10.5
-11.0
-11.5
-12.0
-12.5
log I_ν [erg/s/cm²/Hz/sr]

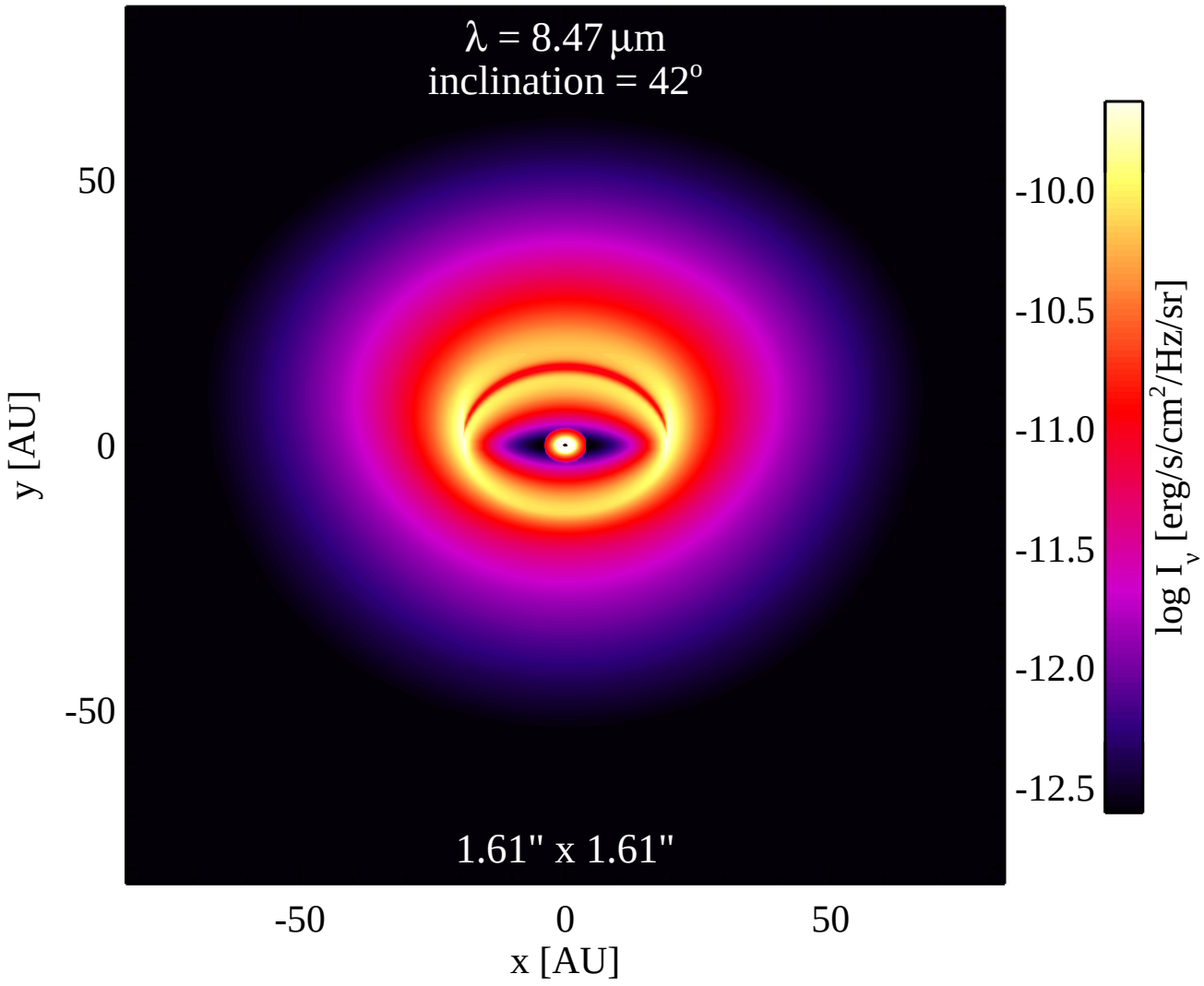

λ = 6.13 μm
inclination = 42°
1.75" x 1.75"
50
0
-50
y [AU]
-50
0
50
x [AU]
-10.5
-11.0
-11.5
-12.0
-12.5
log I_ν [erg/s/cm²/Hz/sr]

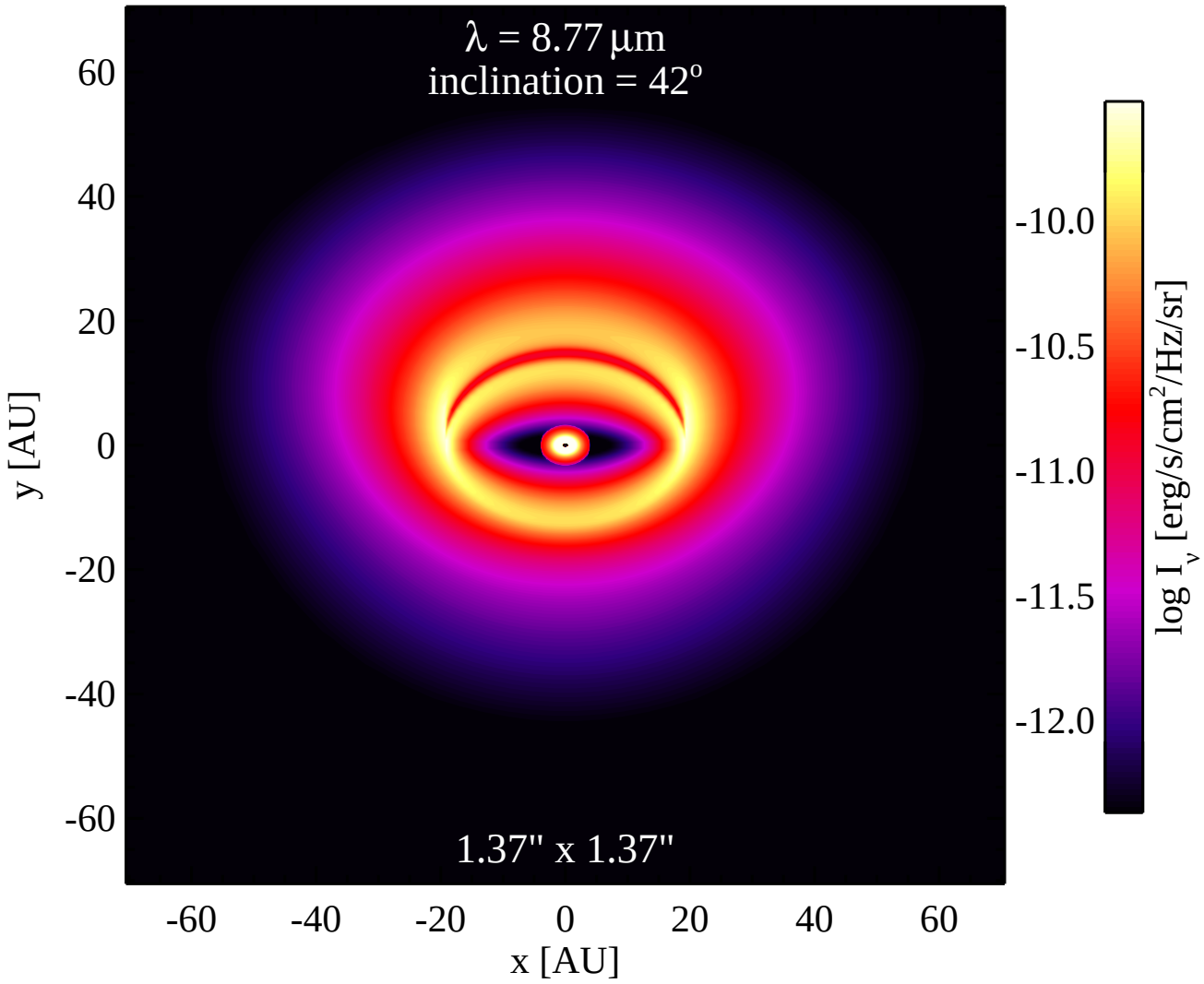

λ = 6.34 μm
inclination = 42°
1.76" x 1.76"
50
0
-50
y [AU]
-50
0
50
x [AU]
-10.5
-11.0
-11.5
-12.0
-12.5
log I_ν [erg/s/cm²/Hz/sr]

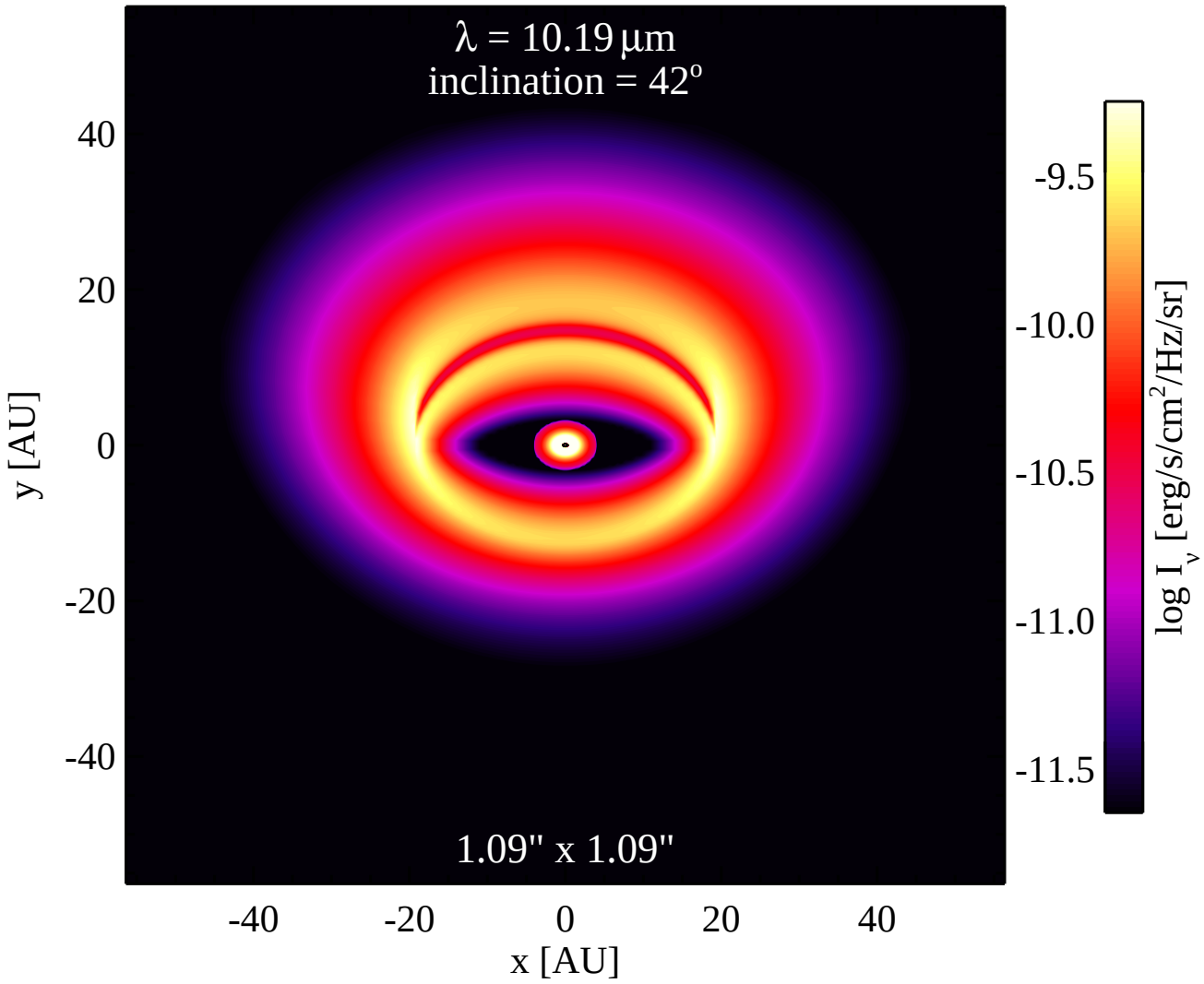

λ = 7.46 μm
inclination = 42°
2.16" x 2.16"
100
50
0
-50
-100
y [AU]
-100
-50
0
50
100
x [AU]
-10.0
-10.5
-11.0
-11.5
-12.0
-12.5
log I_ν [erg/s/cm²/Hz/sr]

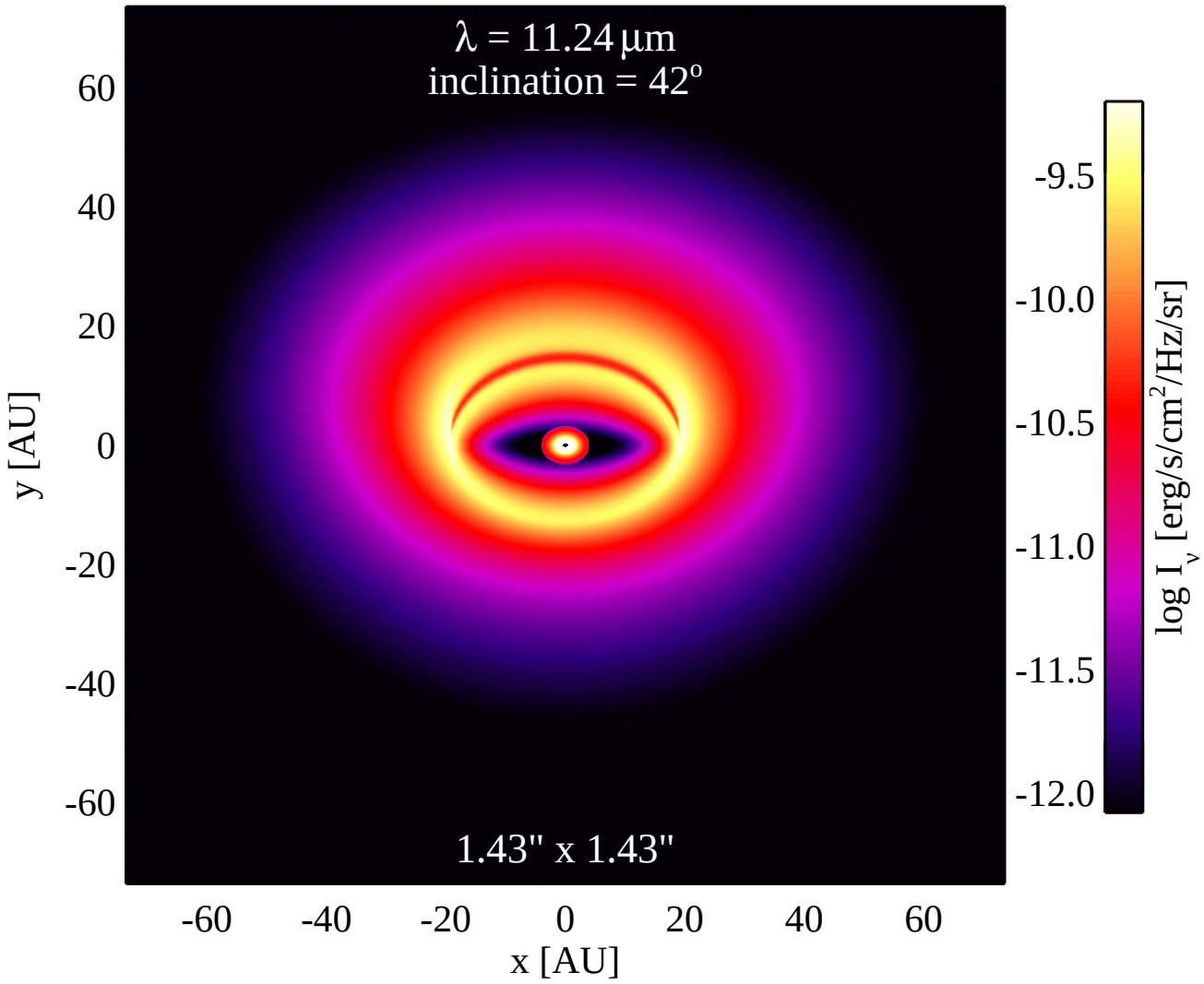

λ = 7.72 μm
inclination = 42°
2.29" x 2.29"
100
50
0
-50
-100
y [AU]
-100
-50
0
50
100
x [AU]
-10.0
-10.5
-11.0
-11.5
-12.0
-12.5
log I_ν [erg/s/cm²/Hz/sr]

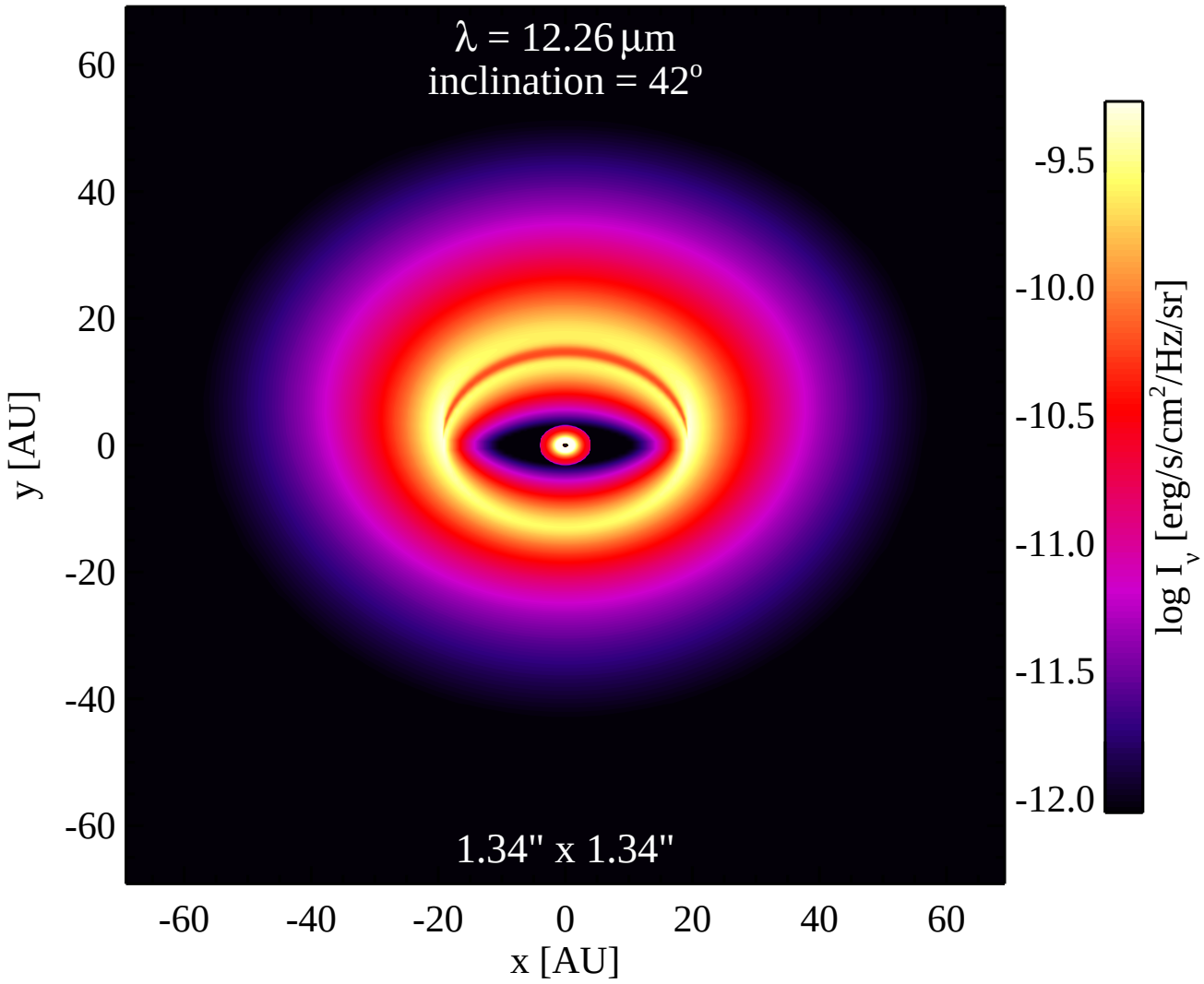

λ = 8.08 μm
inclination = 42°
1.96" x 1.96"
100
50
0
-50
-100
y [AU]
-100
-50
0
50
100
x [AU]
-10.0
-10.5
-11.0
-11.5
-12.0
-12.5
log I_ν [erg/s/cm²/Hz/sr]

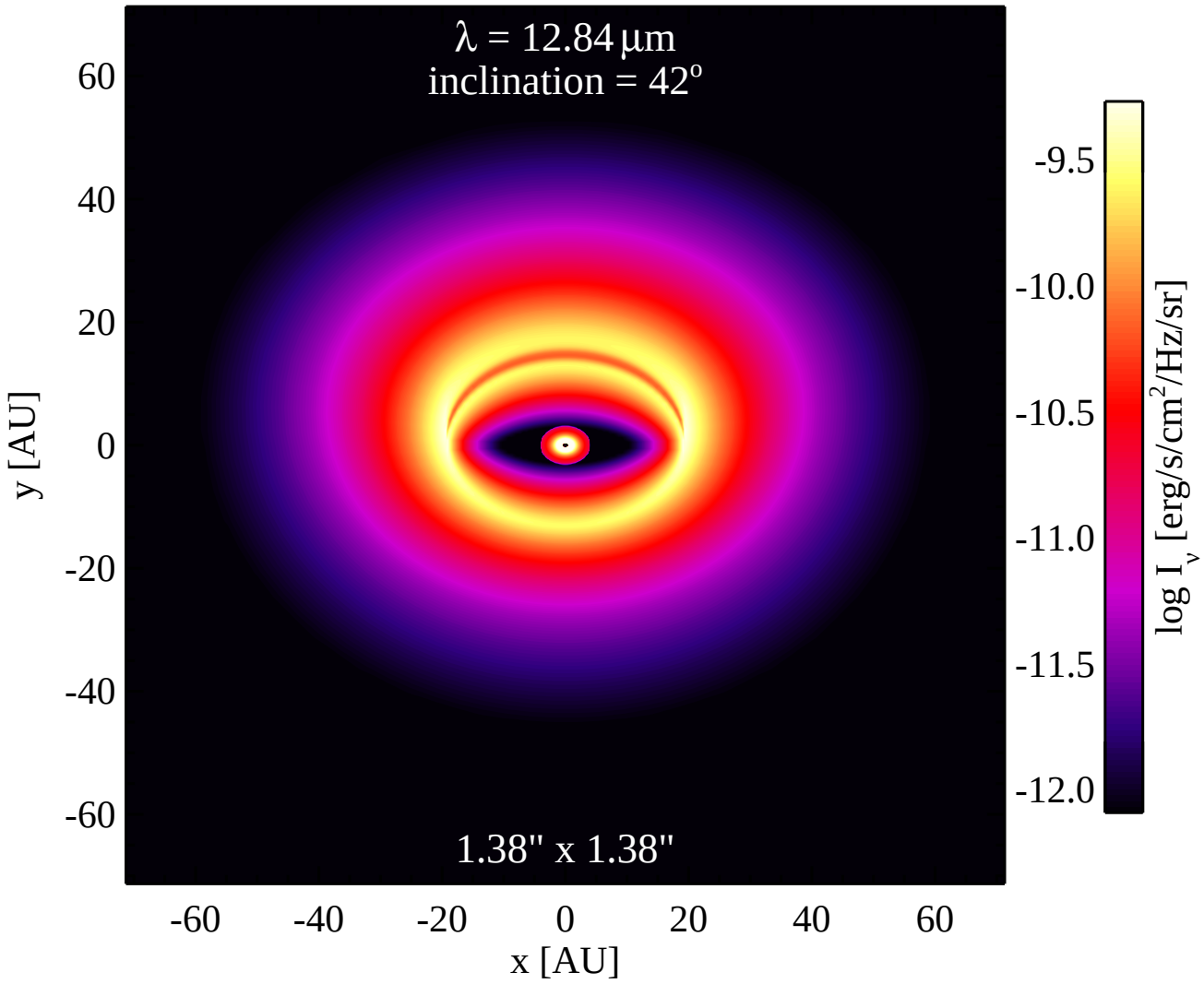

λ = 8.47 μm
inclination = 42°
1.61" x 1.61"
50
0
-50
y [AU]
-50
0
50
x [AU]
-10.0
-10.5
-11.0
-11.5
-12.0
-12.5
log I_ν [erg/s/cm²/Hz/sr]

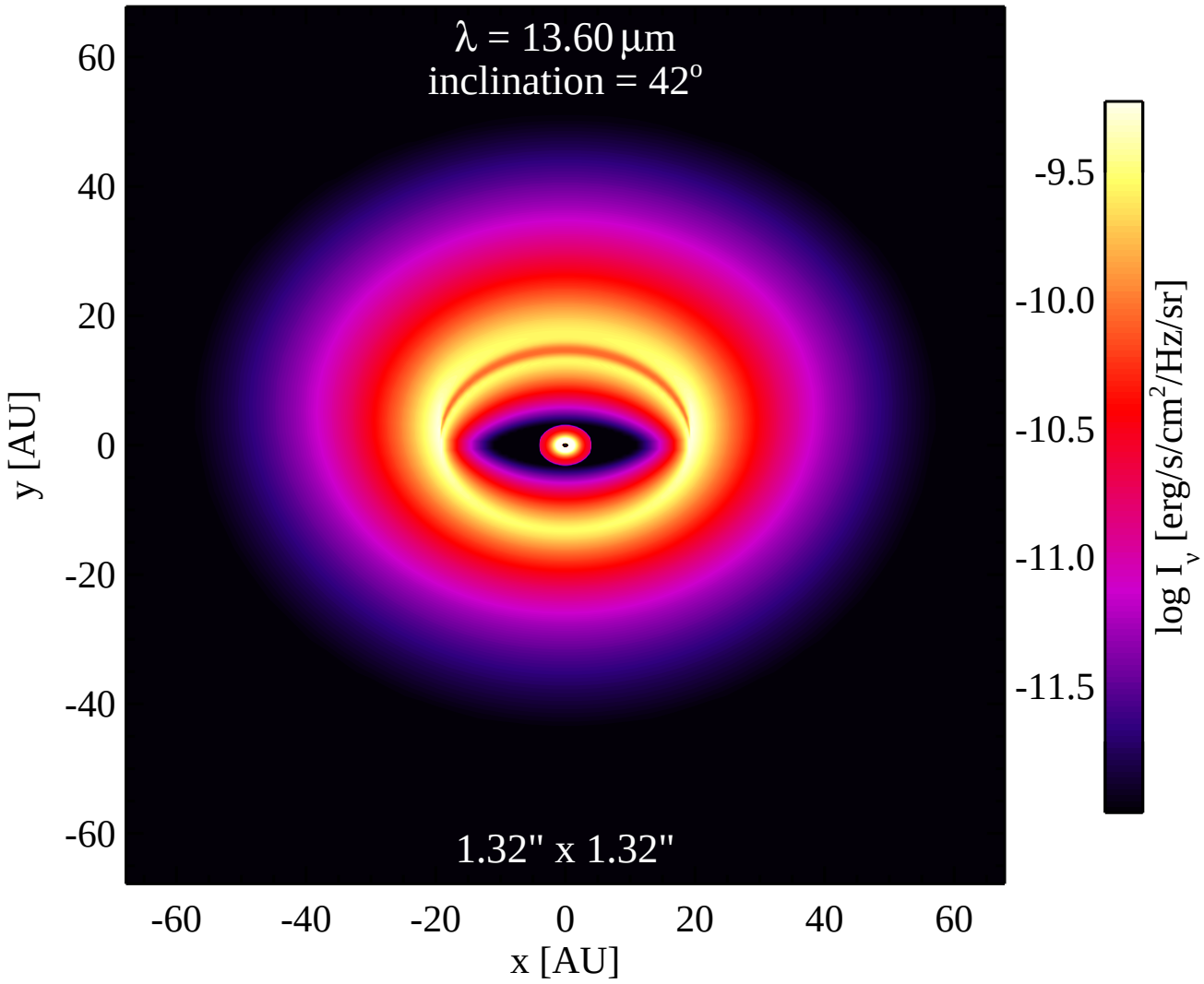

λ = 8.77 μm
inclination = 42°
1.37" x 1.37"
60
40
20
0
-20
-40
-60
y [AU]
-60
-40
-20
0
20
40
60
x [AU]
-10.0
-10.5
-11.0
-11.5
-12.0
log I_ν [erg/s/cm²/Hz/sr]

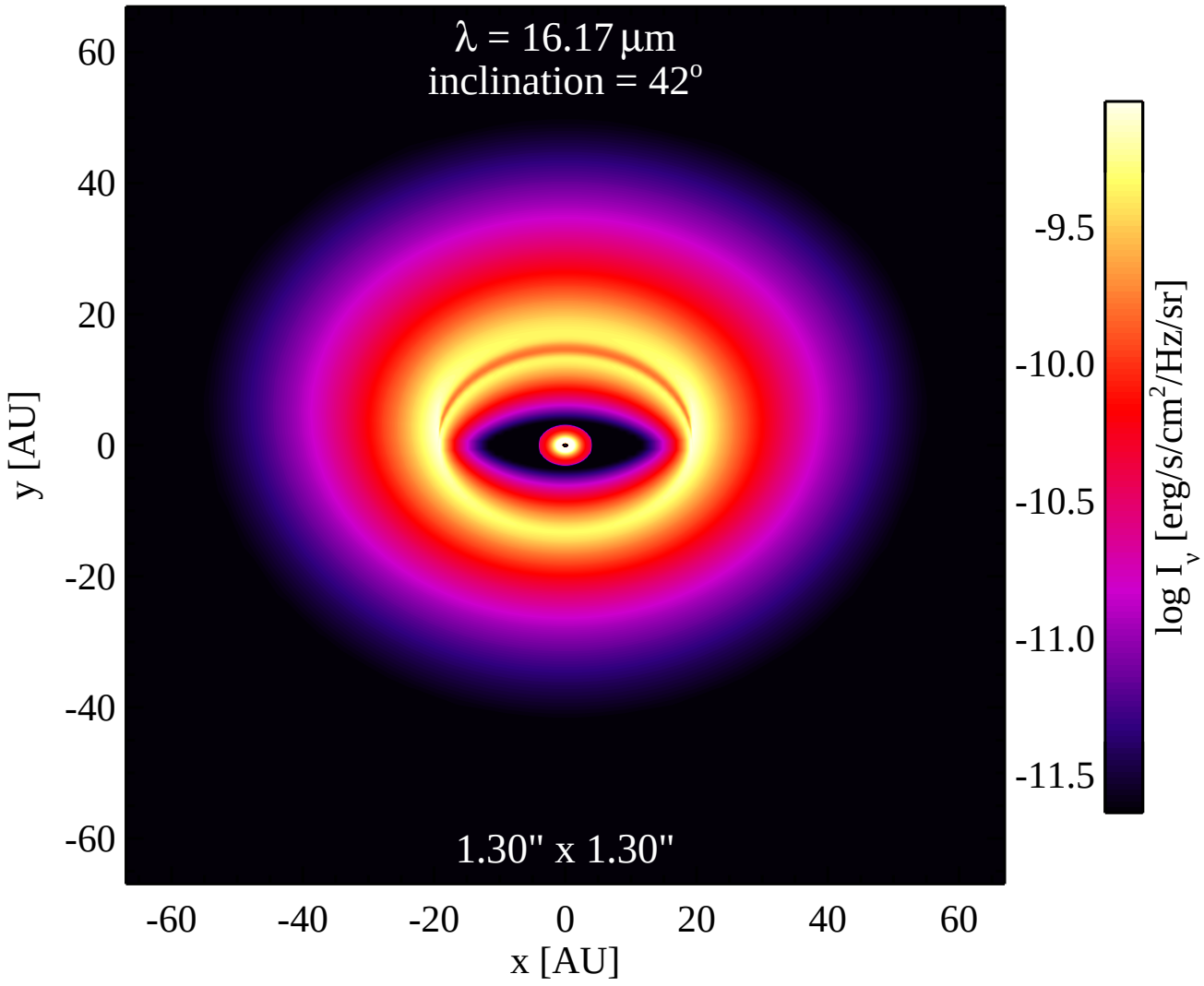

λ = 10.19 μm
inclination = 42°
1.09" x 1.09"
40
20
0
-20
-40
y [AU]
-40
-20
0
20
40
x [AU]
-9.5
-10.0
-10.5
-11.0
-11.5
log I_ν [erg/s/cm²/Hz/sr]

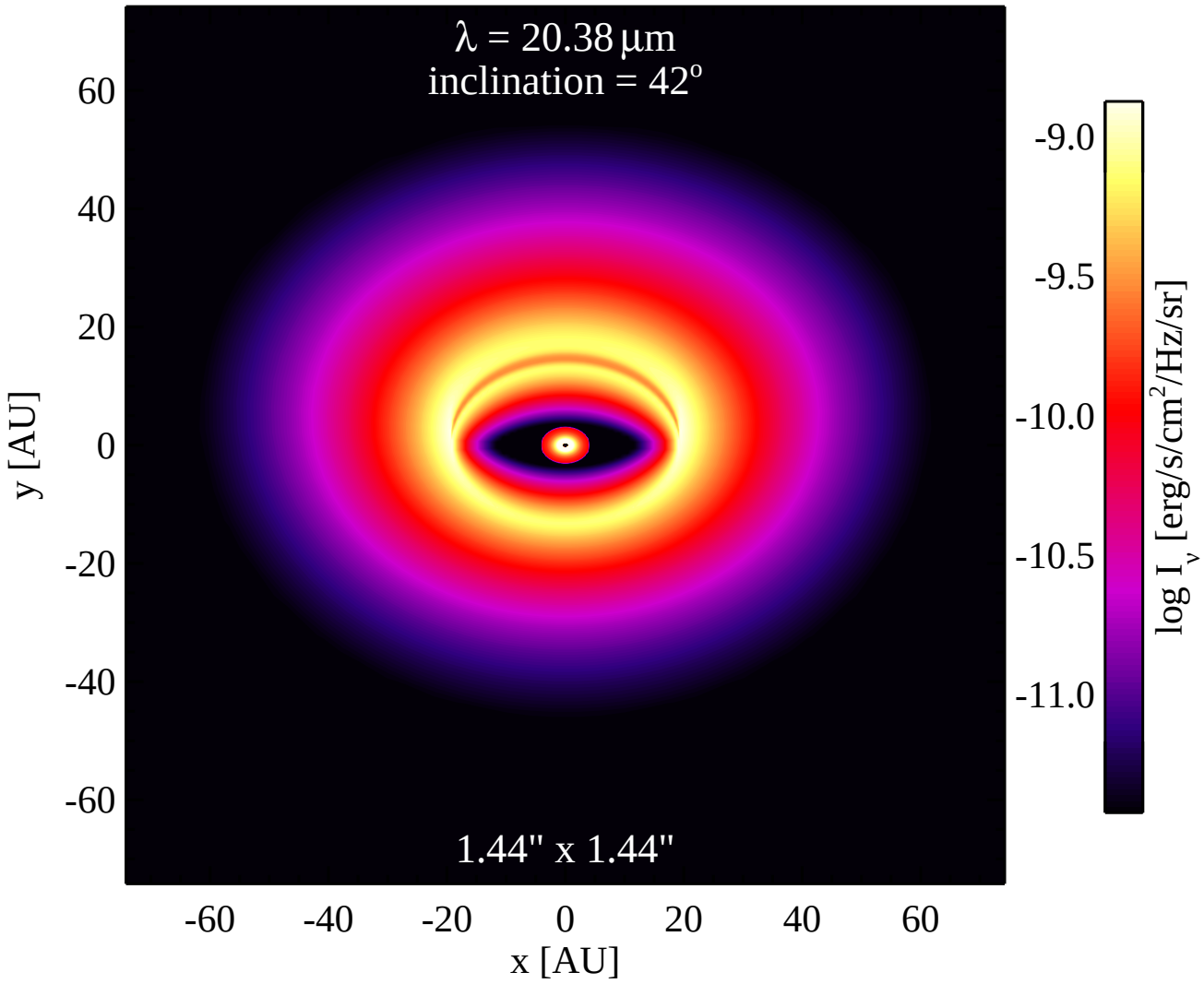

λ = 11.24 μm
inclination = 42°
1.43" x 1.43"
60
40
20
0
-20
-40
-60
y [AU]
-60
-40
-20
0
20
40
60
x [AU]
-9.5
-10.0
-10.5
-11.0
-11.5
-12.0
log I_ν [erg/s/cm²/Hz/sr]

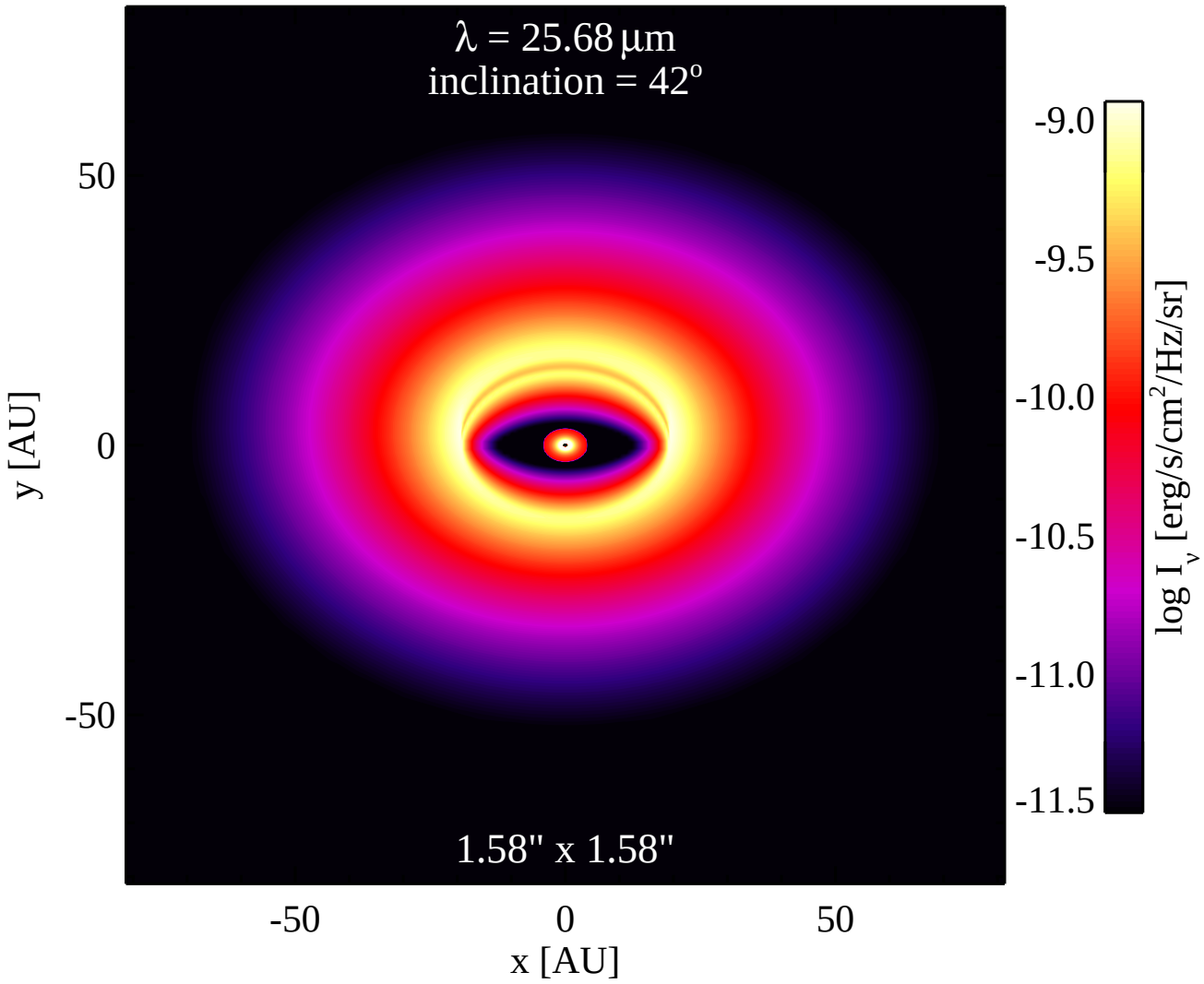

λ = 12.26 μm
inclination = 42°
1.34" x 1.34"
60
40
20
0
-20
-40
-60
y [AU]
-60
-40
-20
0
20
40
60
x [AU]
-9.5
-10.0
-10.5
-11.0
-11.5
-12.0
log I_ν [erg/s/cm²/Hz/sr]

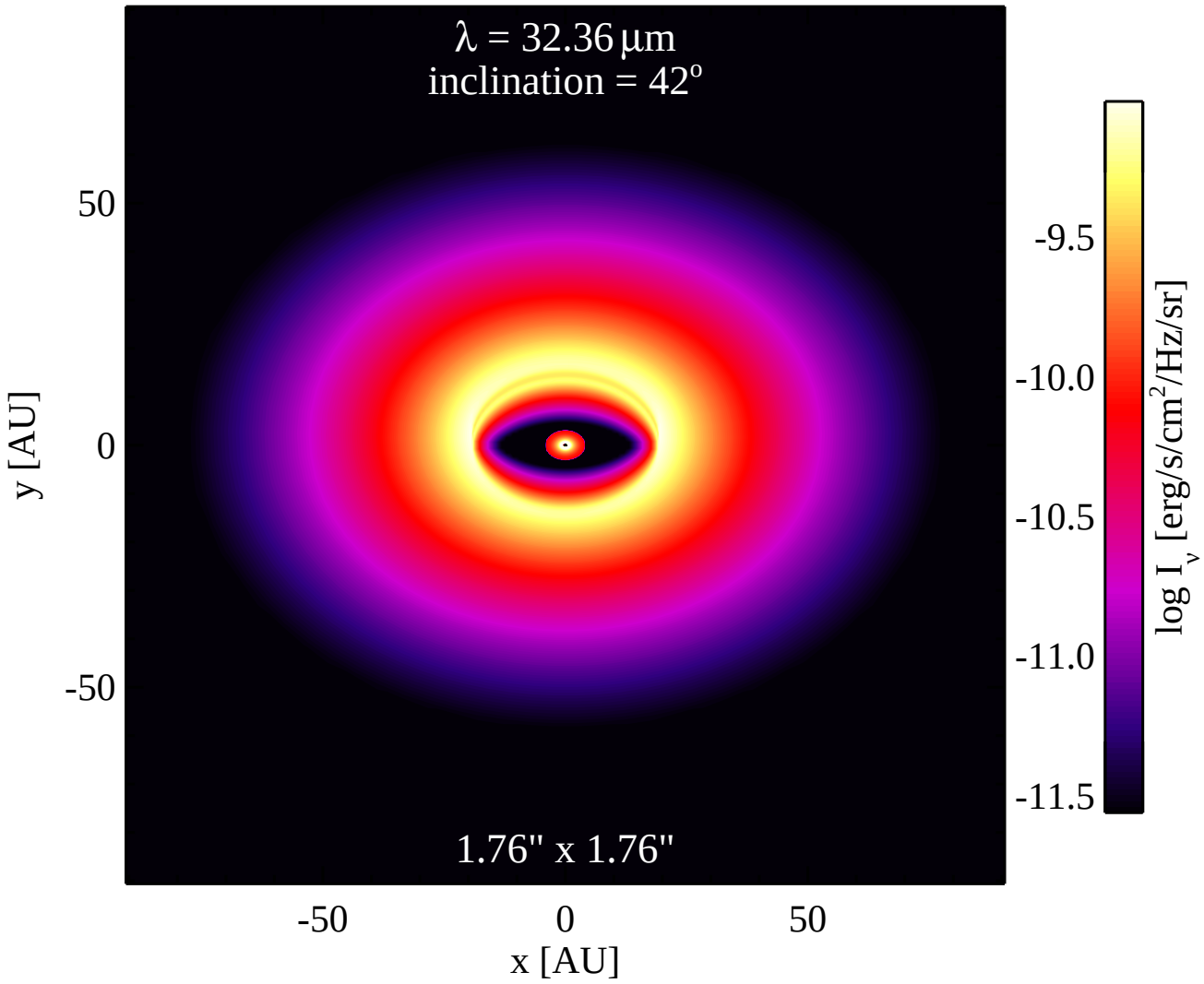

λ = 12.84 μm
inclination = 42°
1.38" x 1.38"
60
40
20
0
-20
-40
-60
y [AU]
-60
-40
-20
0
20
40
60
x [AU]
-9.5
-10.0
-10.5
-11.0
-11.5
-12.0
log I_ν [erg/s/cm²/Hz/sr]

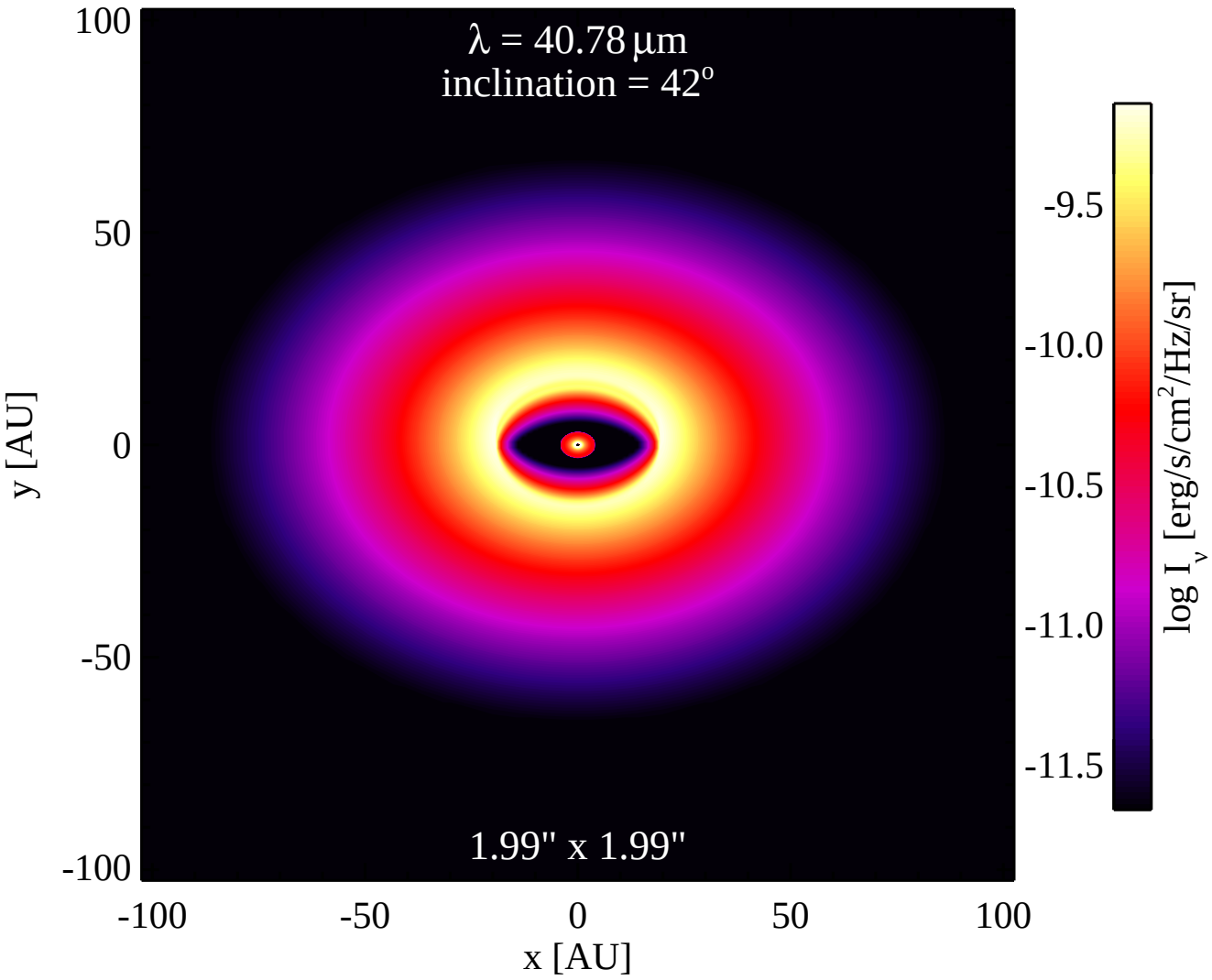

λ = 13.60 μm
inclination = 42°
1.32" x 1.32"
60
40
20
0
-20
-40
-60
y [AU]
-60
-40
-20
0
20
40
60
x [AU]
-9.5
-10.0
-10.5
-11.0
-11.5
log I_ν [erg/s/cm²/Hz/sr]

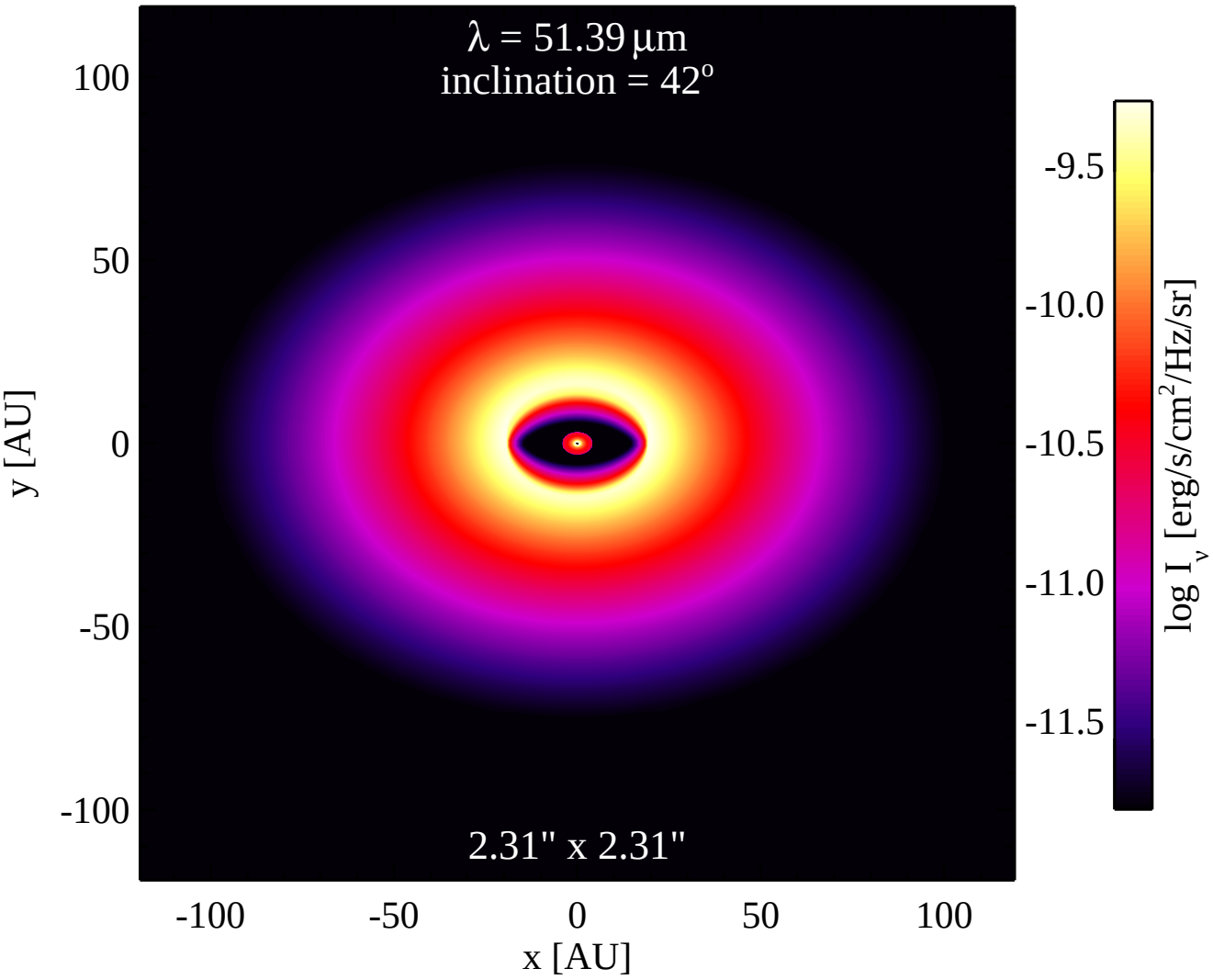

λ = 16.17 μm
inclination = 42°
1.30" x 1.30"
60
40
20
0
-20
-40
-60
y [AU]
-60
-40
-20
0
20
40
60
x [AU]
-9.5
-10.0
-10.5
-11.0
-11.5
log I_ν [erg/s/cm²/Hz/sr]

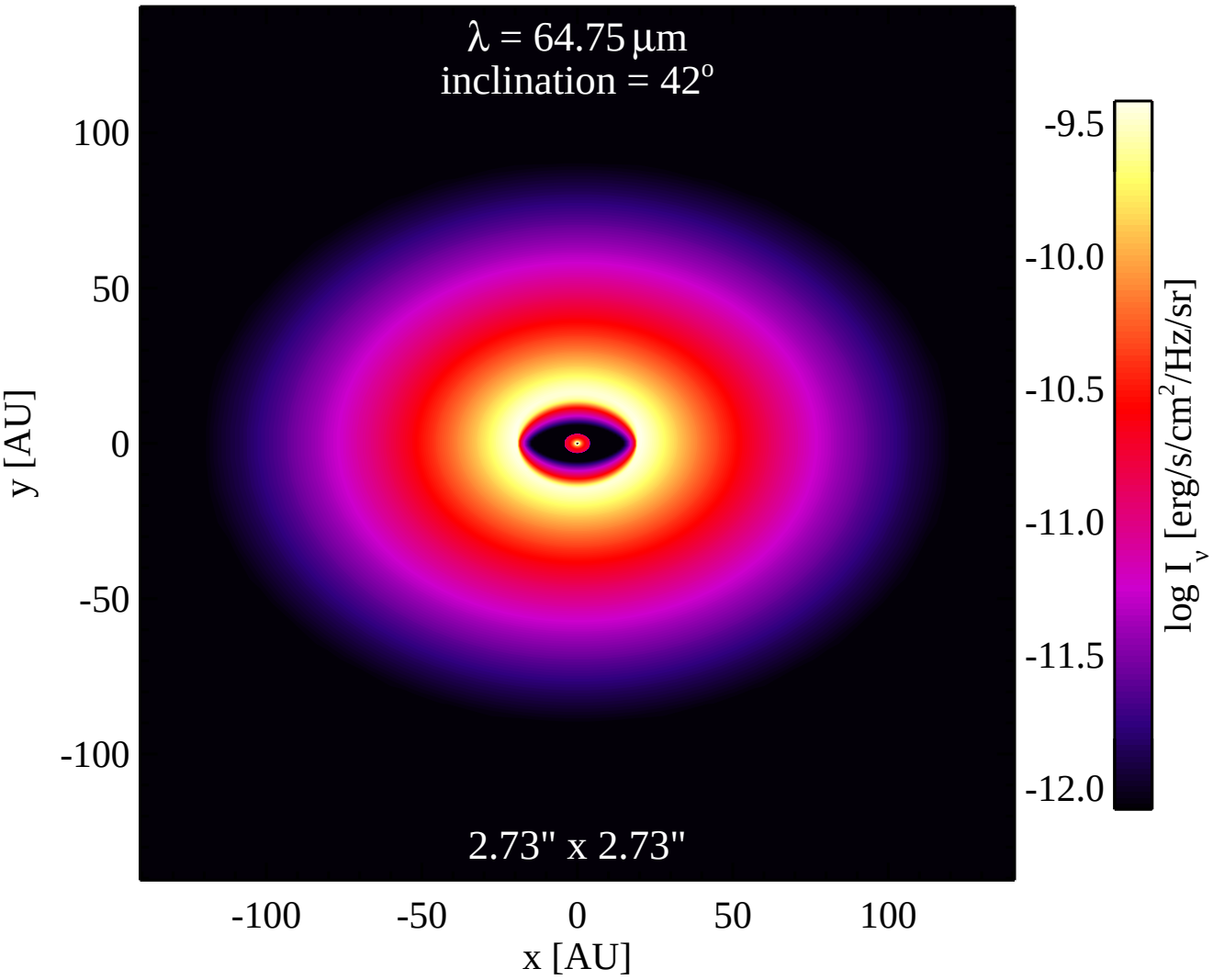

λ = 20.38 μm
inclination = 42°
1.44" x 1.44"
60
40
20
0
-20
-40
-60
y [AU]
-60
-40
-20
0
20
40
60
x [AU]
-9.0
-9.5
-10.0
-10.5
-11.0
log I_ν [erg/s/cm²/Hz/sr]

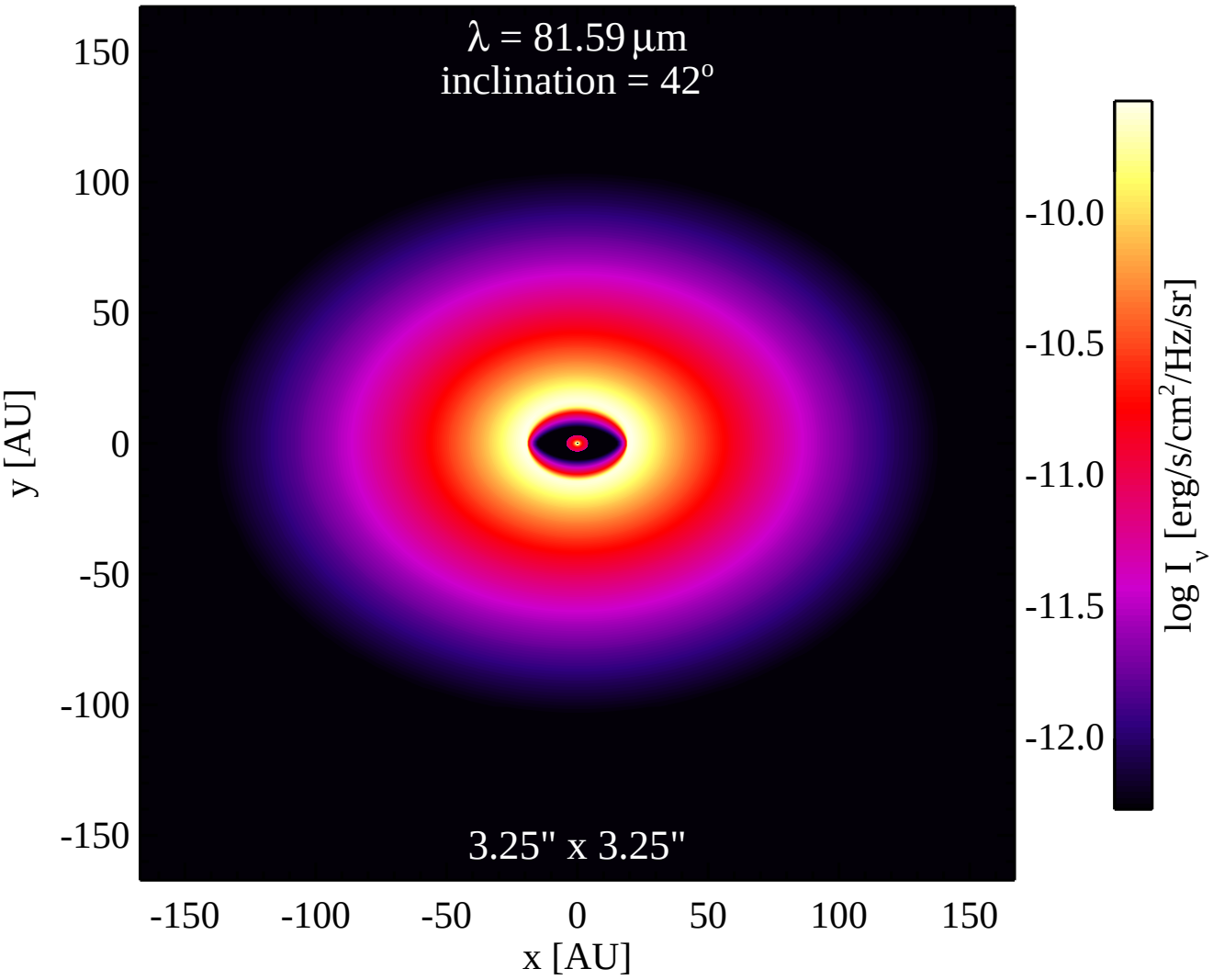

λ = 25.68 μm
inclination = 42°
1.58" x 1.58"
50
0
-50
y [AU]
-50
0
50
x [AU]
-9.0
-9.5
-10.0
-10.5
-11.0
-11.5
log I_ν [erg/s/cm²/Hz/sr]

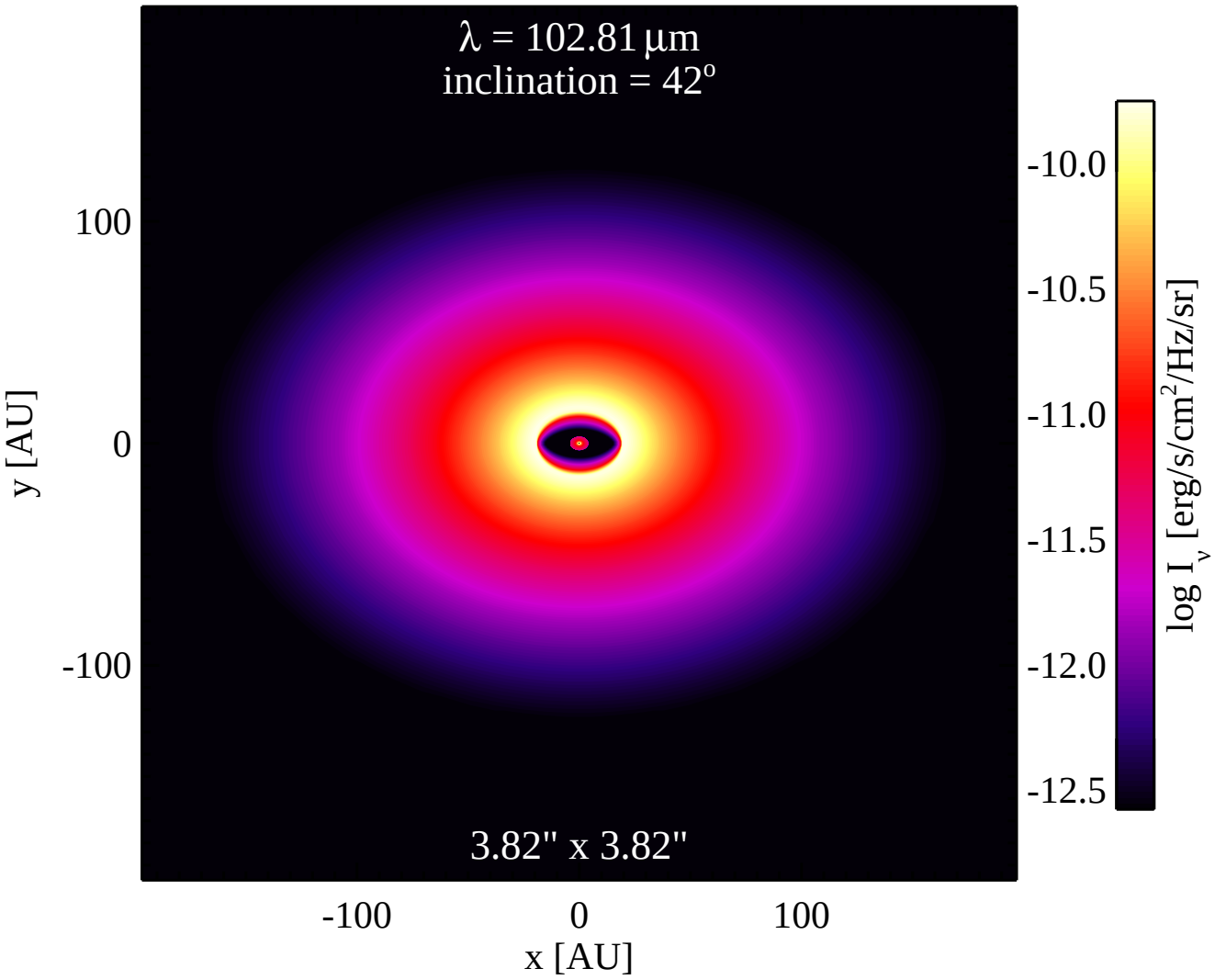

λ = 32.36 μm
inclination = 42°
1.76" x 1.76"
50
0
-50
y [AU]
-50
0
50
x [AU]
-9.5
-10.0
-10.5
-11.0
-11.5
log I_ν [erg/s/cm²/Hz/sr]

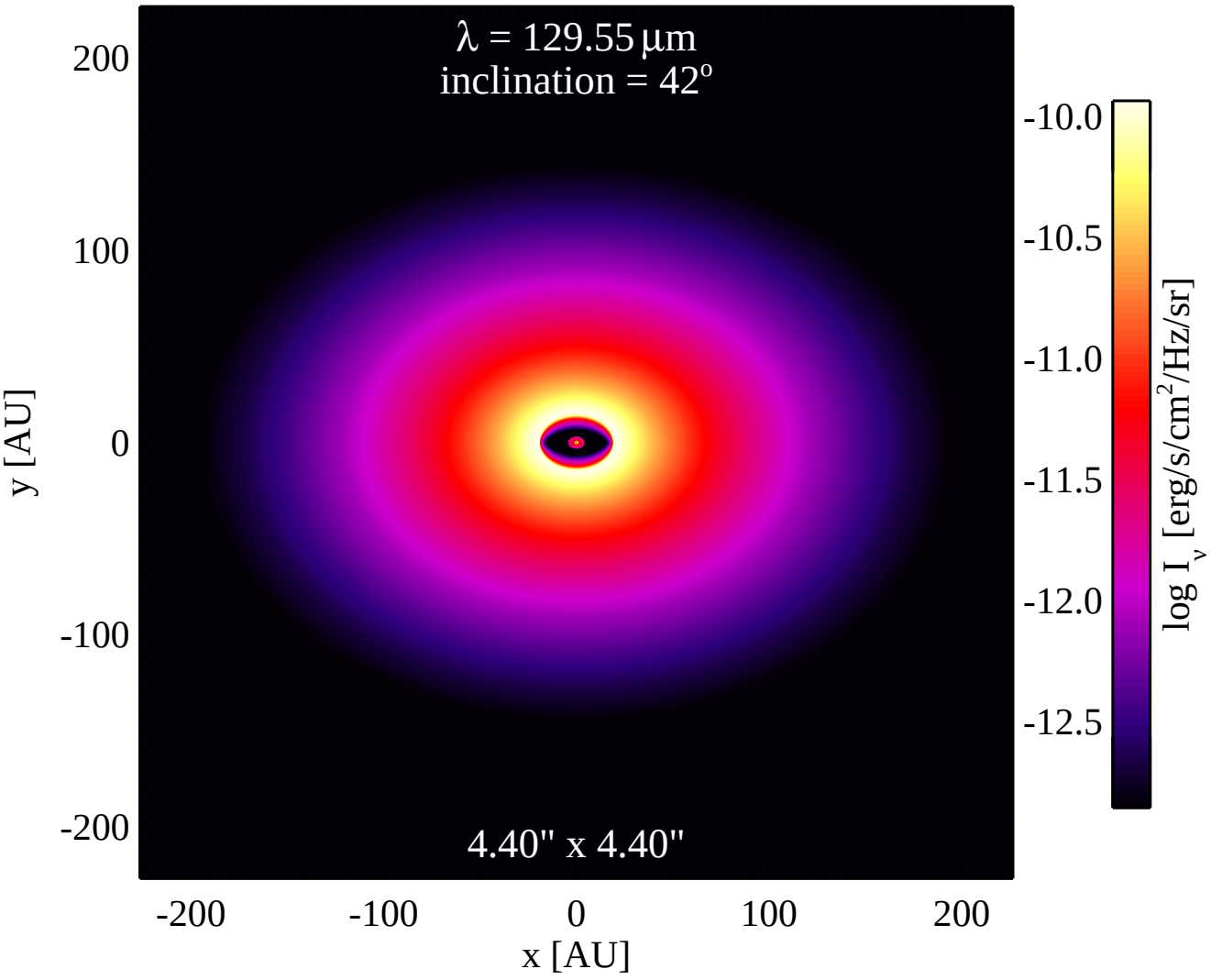

λ = 40.78 μm
inclination = 42°
1.99" x 1.99"
100
50
0
-50
-100
y [AU]
-100
-50
0
50
100
x [AU]
-9.5
-10.0
-10.5
-11.0
-11.5
log I_ν [erg/s/cm²/Hz/sr]

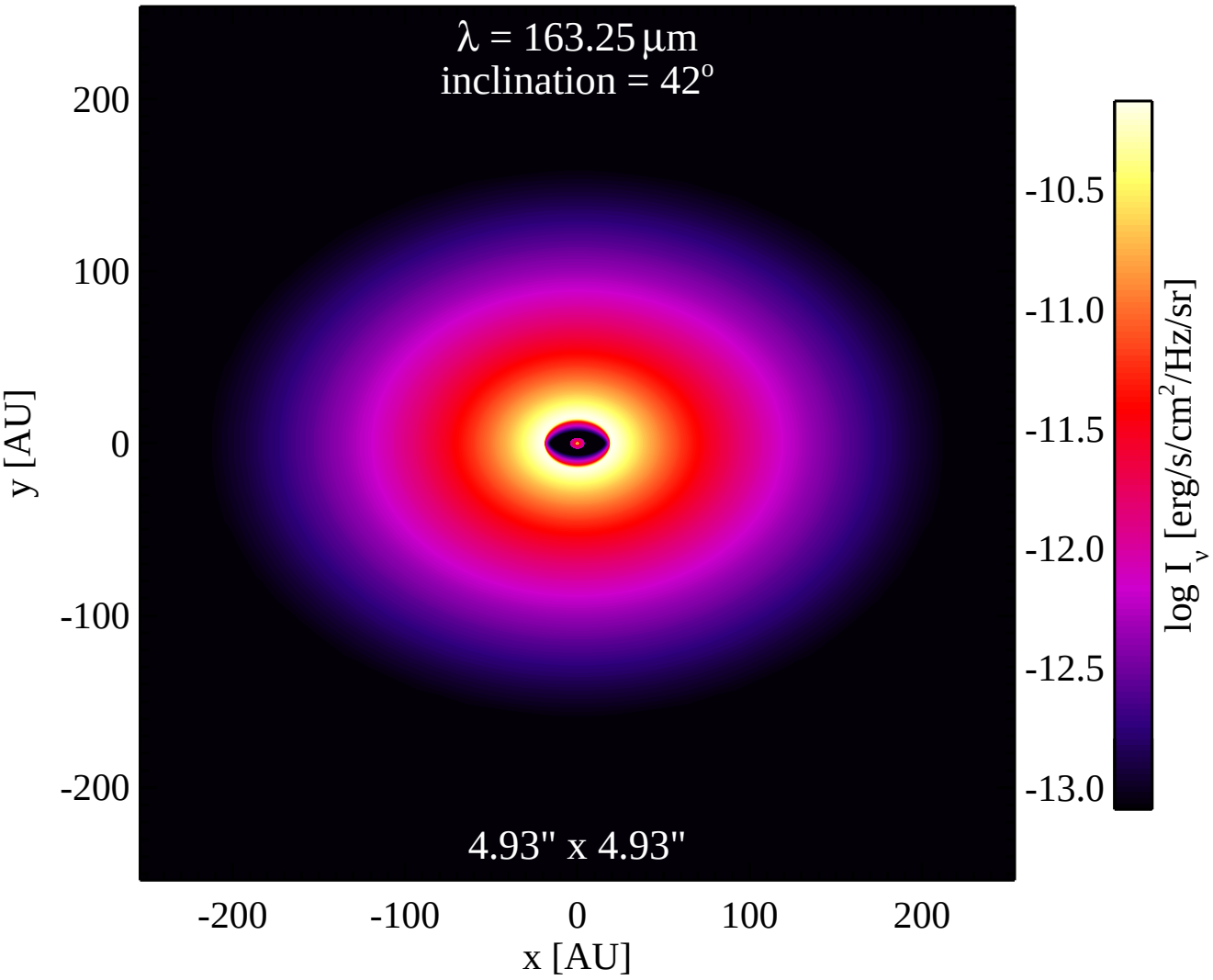

λ = 51.39 μm
inclination = 42°
2.31" x 2.31"
100
50
0
-50
-100
y [AU]
-100
-50
0
50
100
x [AU]
-9.5
-10.0
-10.5
-11.0
-11.5
log I_ν [erg/s/cm²/Hz/sr]

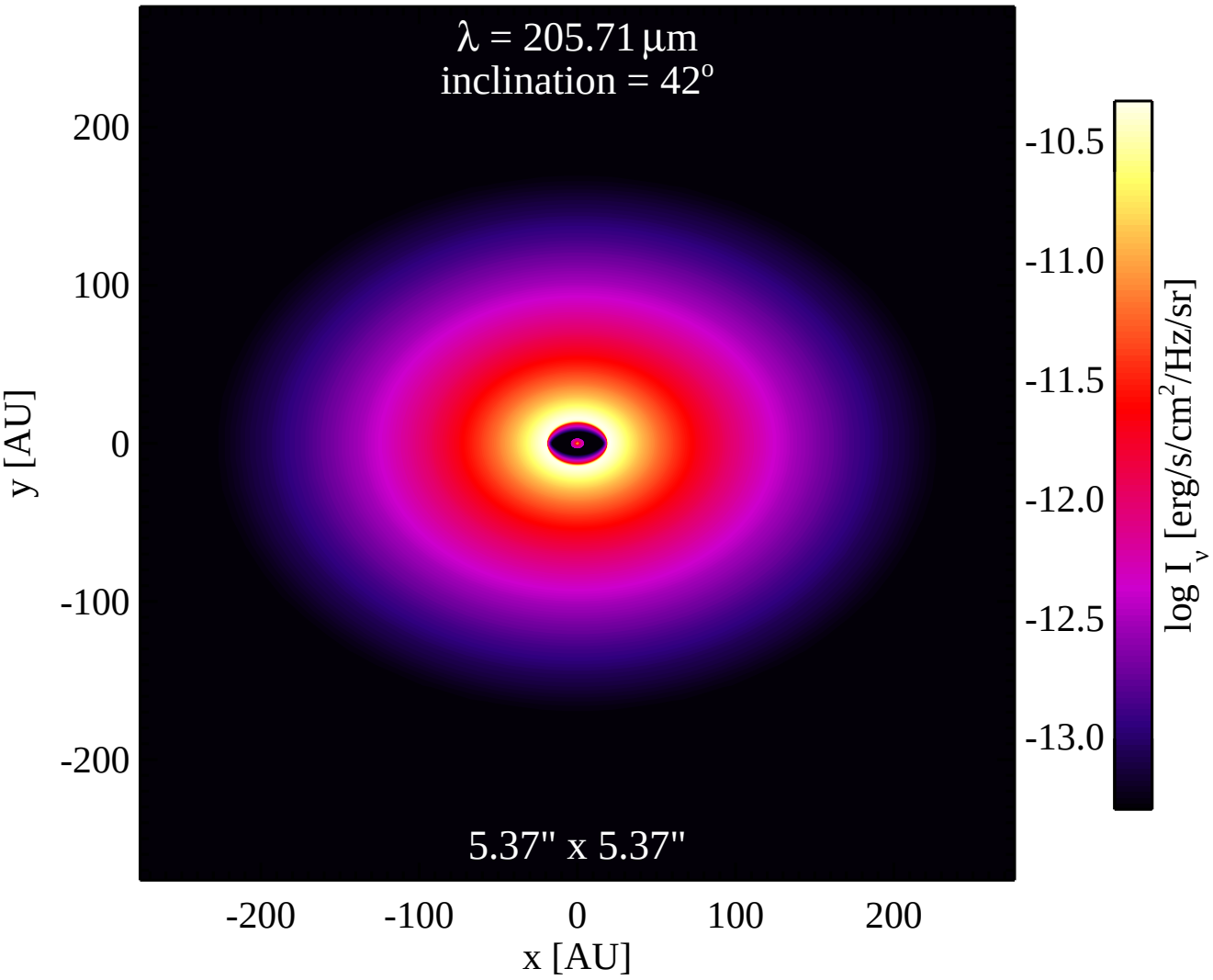

λ = 64.75 μm
inclination = 42°
2.73" x 2.73"
100
50
0
-50
-100
y [AU]
-100
-50
0
50
100
x [AU]
-9.5
-10.0
-10.5
-11.0
-11.5
-12.0
log I_ν [erg/s/cm²/Hz/sr]

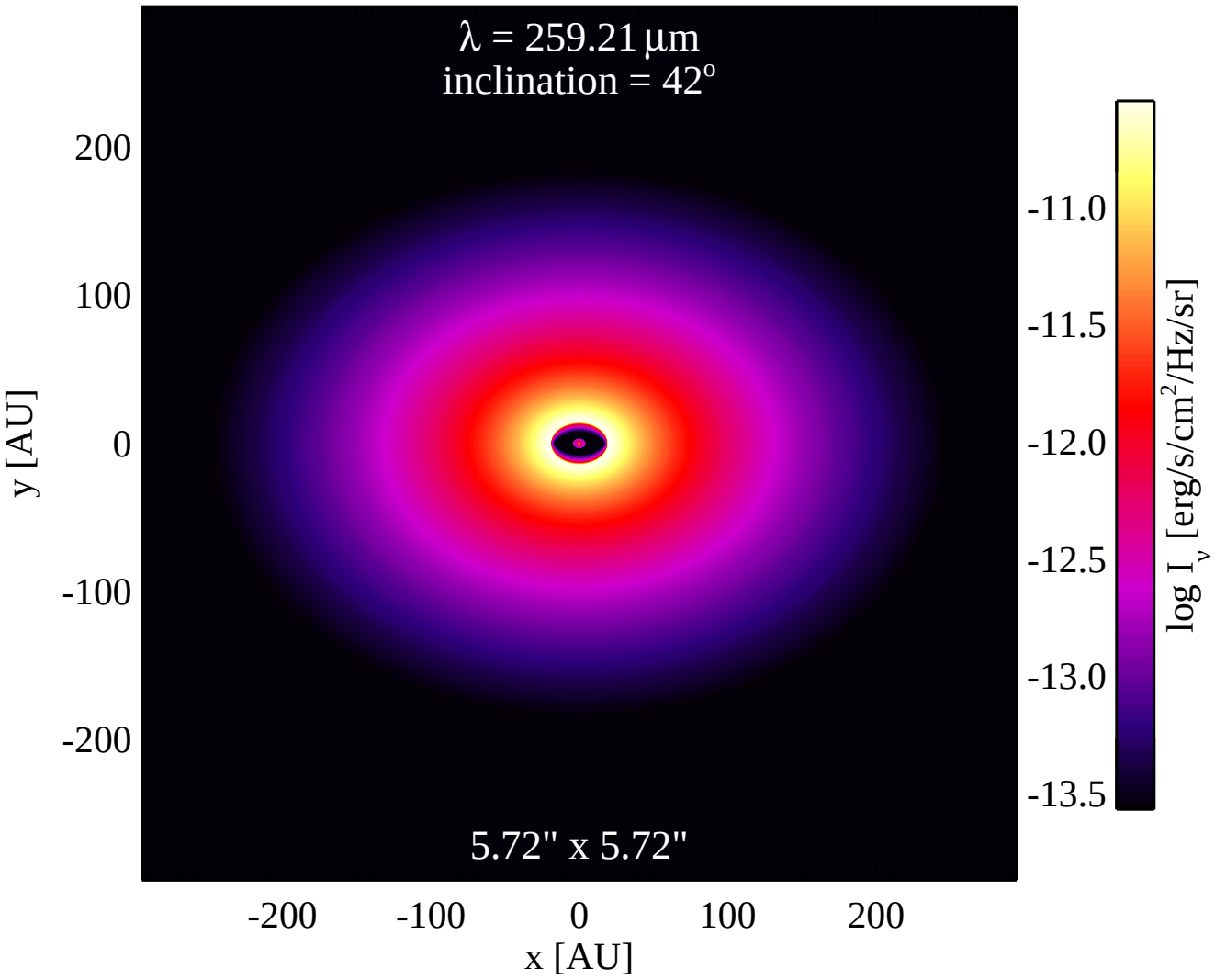

λ = 81.59 μm
inclination = 42°
3.25" x 3.25"
150
100
50
0
-50
-100
-150
y [AU]
-150
-100
-50
0
50
100
150
x [AU]
-10.0
-10.5
-11.0
-11.5
-12.0
log I_ν [erg/s/cm²/Hz/sr]

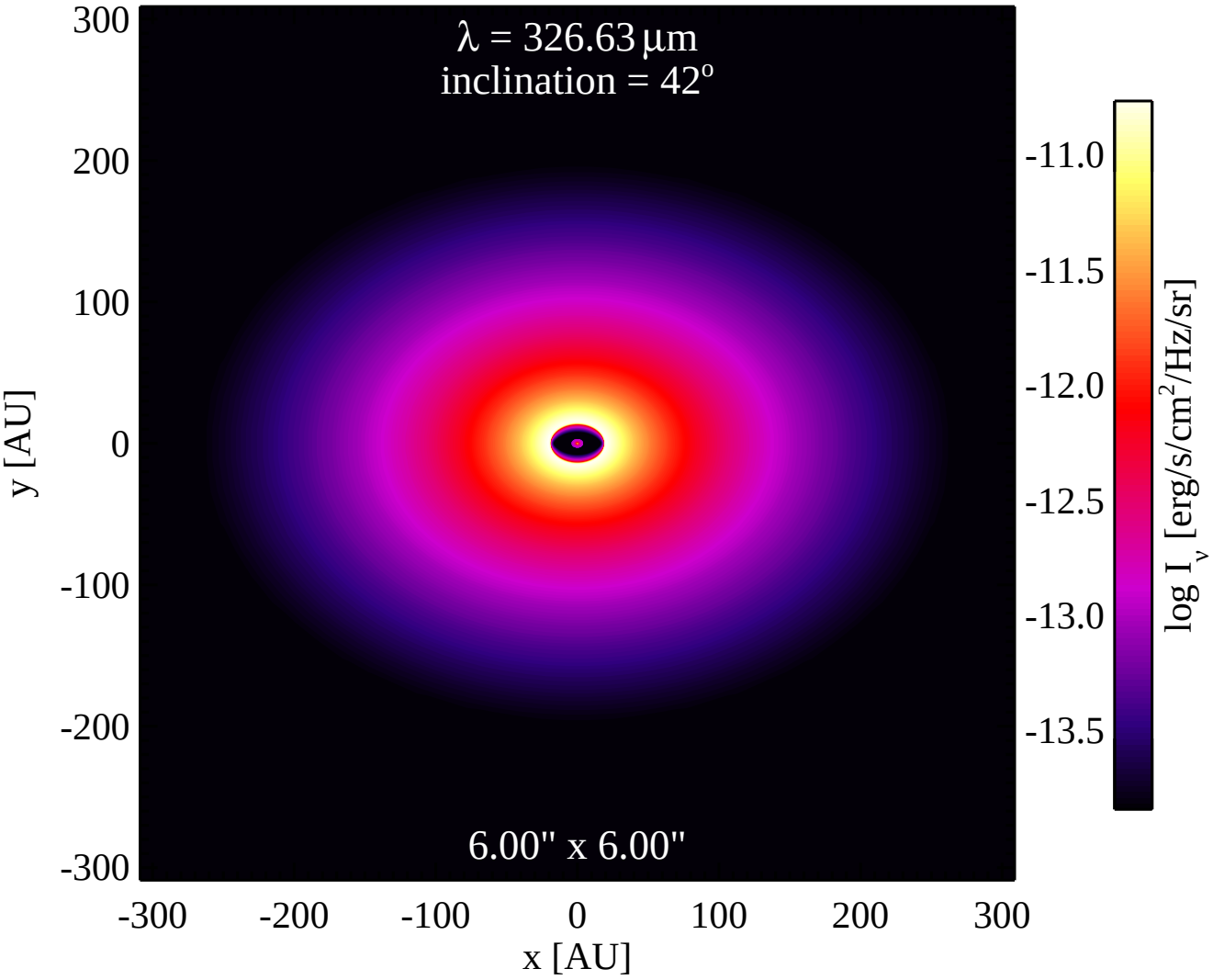

λ = 102.81 μm
inclination = 42°
3.82" x 3.82"
100
0
-100
y [AU]
-100
0
100
x [AU]
-10.0
-10.5
-11.0
-11.5
-12.0
-12.5
log I_ν [erg/s/cm²/Hz/sr]

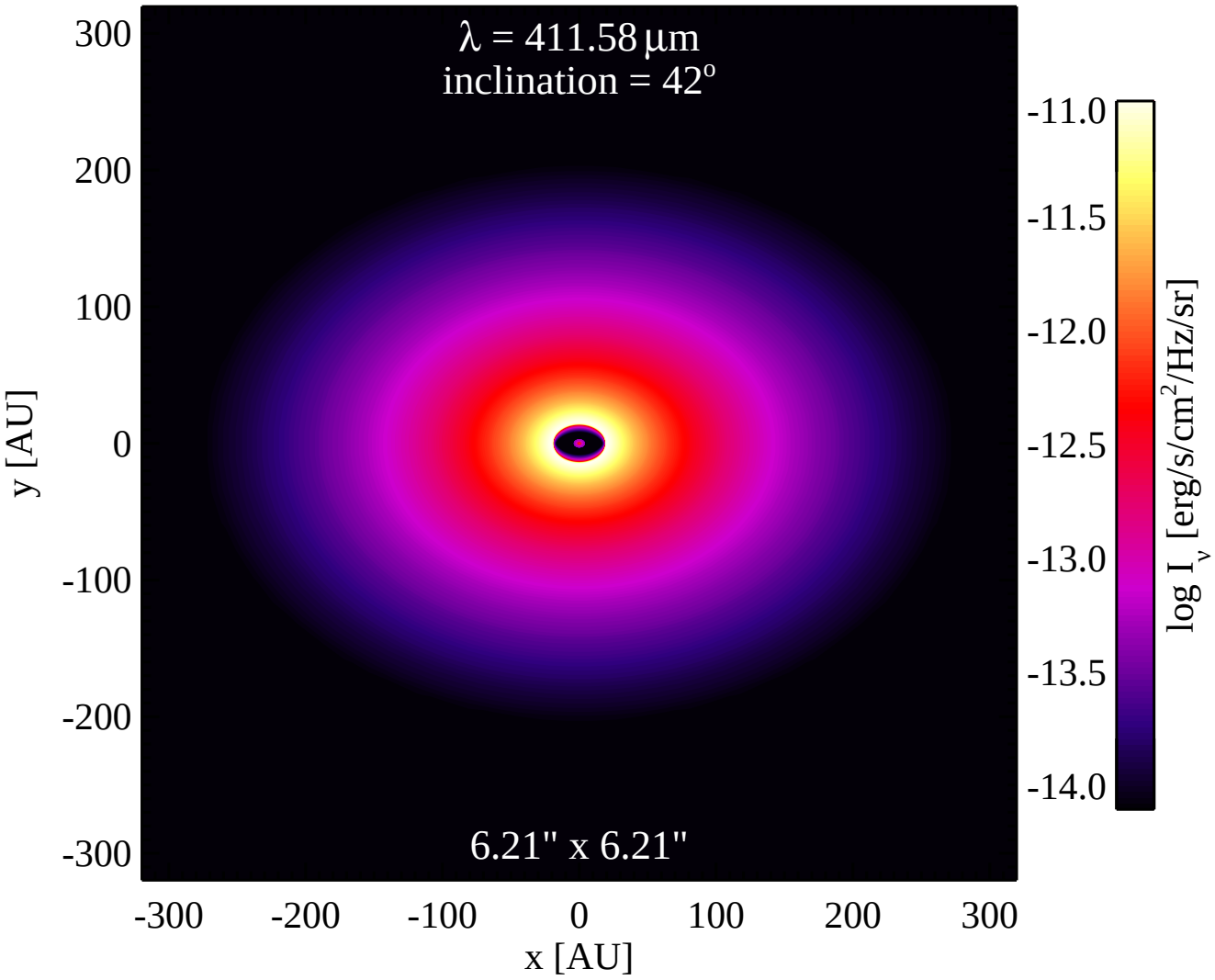

λ = 129.55 μm
inclination = 42°
4.40" x 4.40"
200
100
0
-100
-200
y [AU]
-200
-100
0
100
200
x [AU]
-10.0
-10.5
-11.0
-11.5
-12.0
-12.5
log I_ν [erg/s/cm²/Hz/sr]

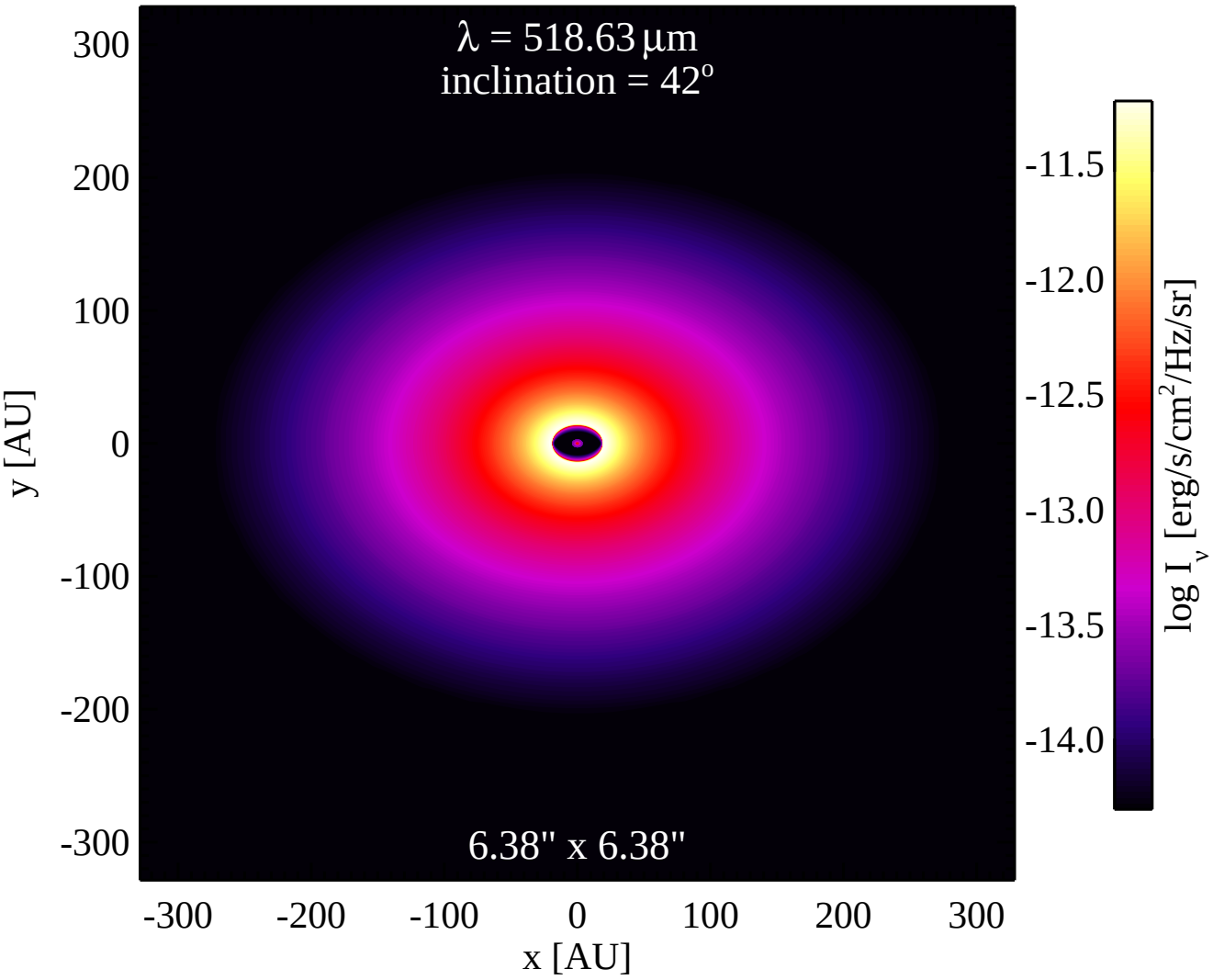

λ = 163.25 μm
inclination = 42°
4.93" x 4.93"
200
100
0
-100
-200
y [AU]
-200
-100
0
100
200
x [AU]
-10.5
-11.0
-11.5
-12.0
-12.5
-13.0
log I_ν [erg/s/cm²/Hz/sr]

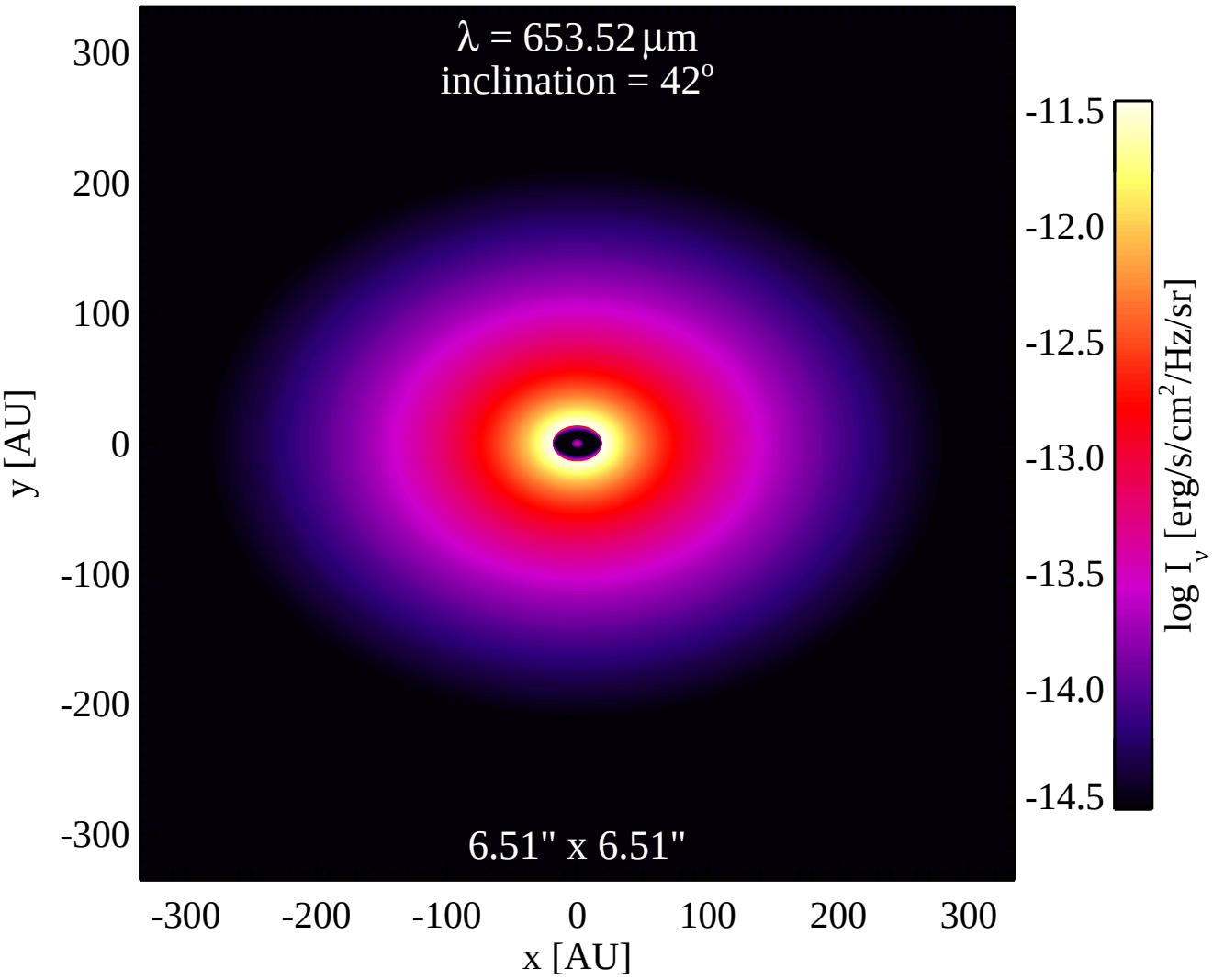

λ = 205.71 μm
inclination = 42°
5.37" x 5.37"
200
100
0
-100
-200
y [AU]
-200
-100
0
100
200
x [AU]
-10.5
-11.0
-11.5
-12.0
-12.5
-13.0
log I_ν [erg/s/cm²/Hz/sr]

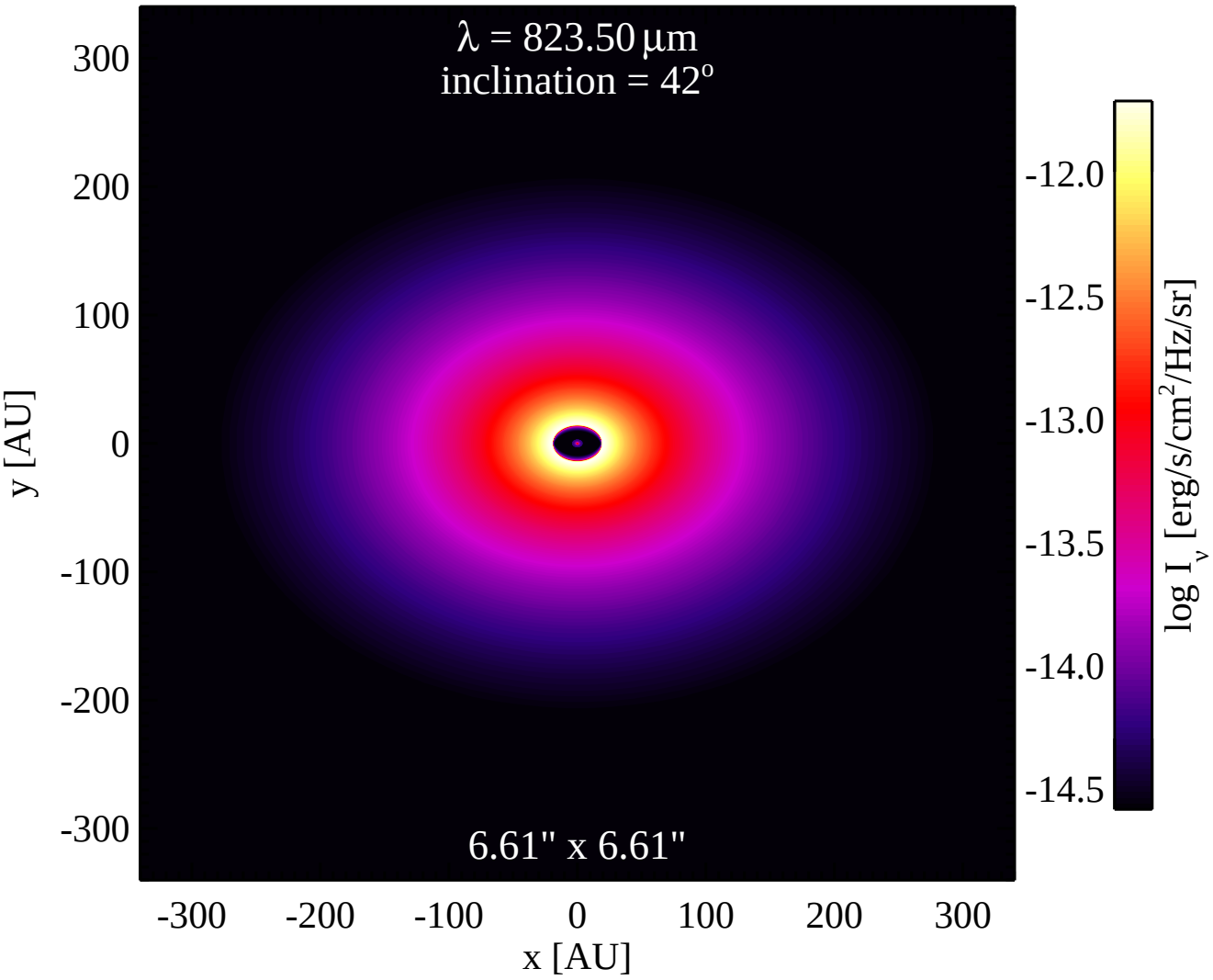

λ = 259.21 μm
inclination = 42°
5.72" x 5.72"
200
100
0
-100
-200
y [AU]
-200
-100
0
100
200
x [AU]
-11.0
-11.5
-12.0
-12.5
-13.0
-13.5
log I_ν [erg/s/cm²/Hz/sr]

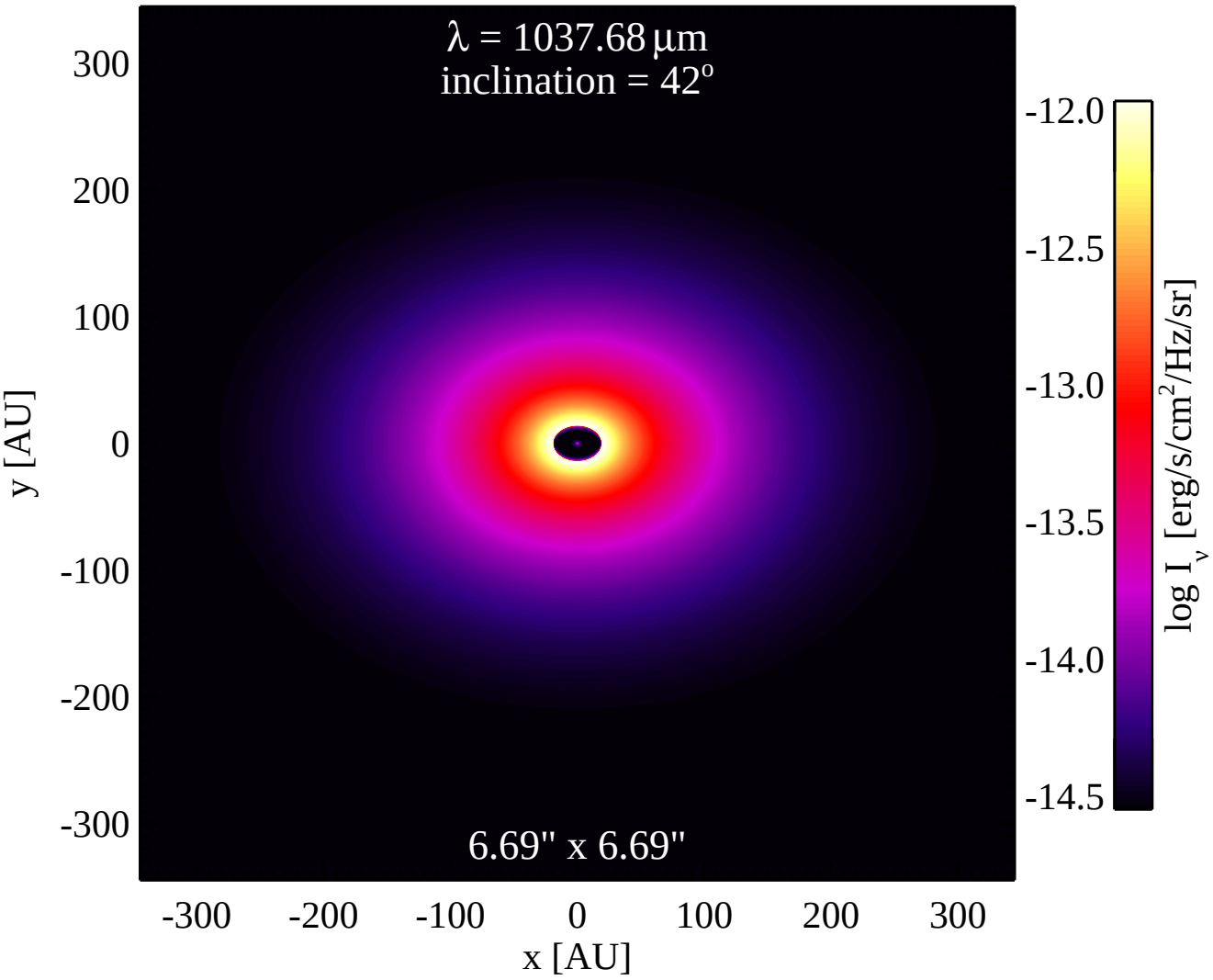

λ = 326.63 μm
inclination = 42°
6.00" x 6.00"
300
200
100
0
-100
-200
-300
y [AU]
-300
-200
-100
0
100
200
300
x [AU]
-11.0
-11.5
-12.0
-12.5
-13.0
-13.5
log I_ν [erg/s/cm²/Hz/sr]

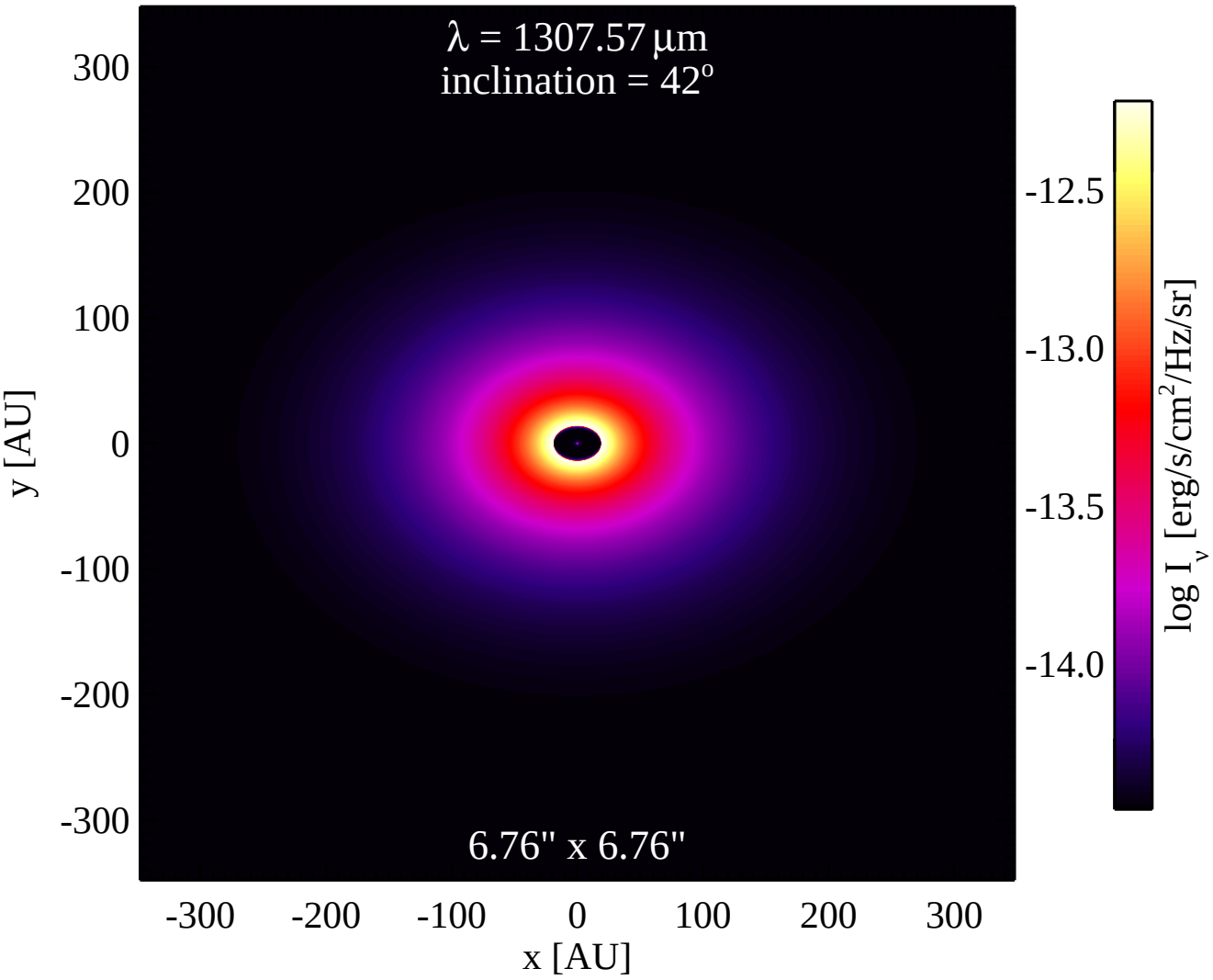

λ = 411.58 μm
inclination = 42°
6.21" x 6.21"
300
200
100
0
-100
-200
-300
y [AU]
-300
-200
-100
0
100
200
300
x [AU]
-11.0
-11.5
-12.0
-12.5
-13.0
-13.5
-14.0
log I_ν [erg/s/cm²/Hz/sr]

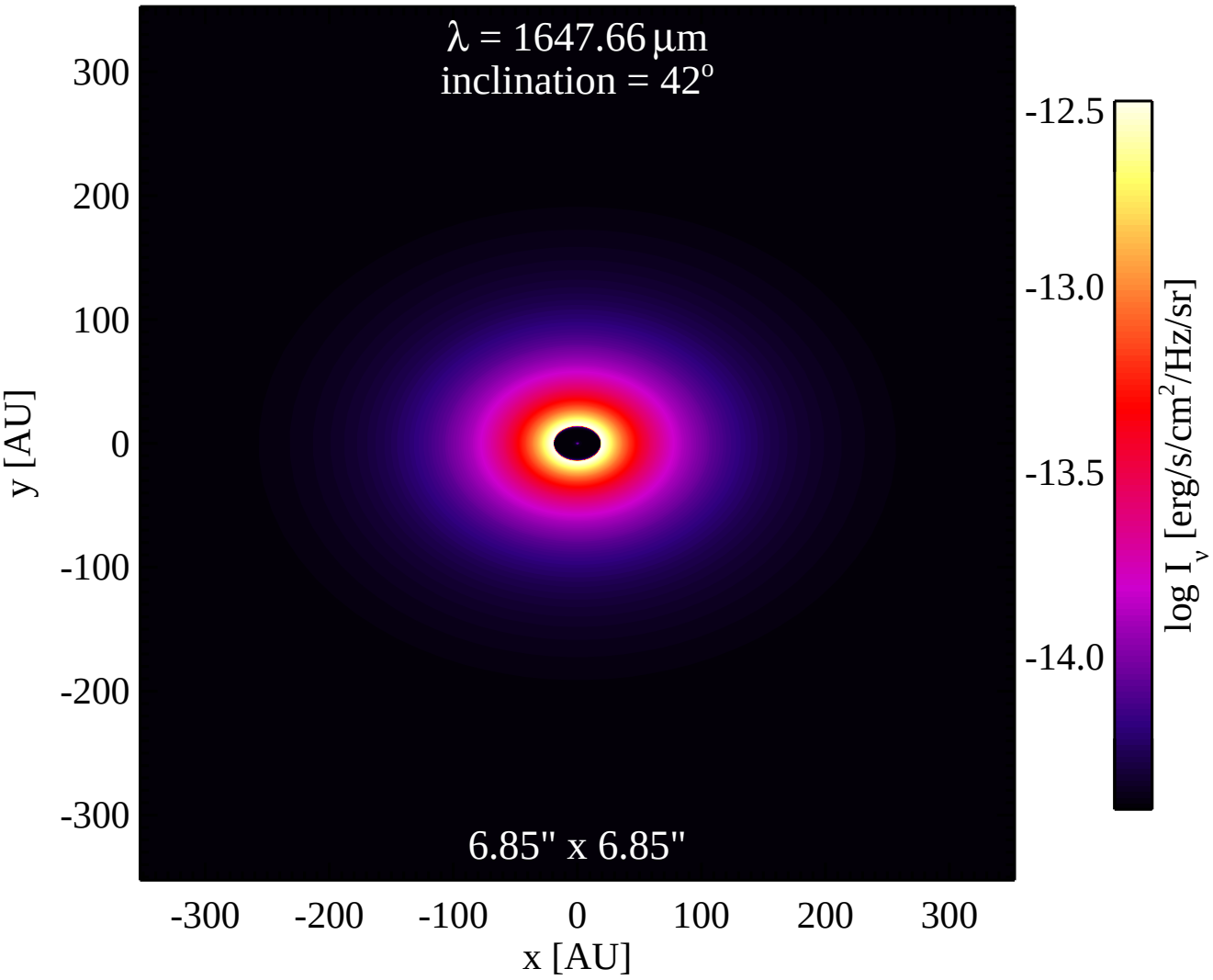

λ = 518.63 μm
inclination = 42°
6.38" x 6.38"
300
200
100
0
-100
-200
-300
y [AU]
-300
-200
-100
0
100
200
300
x [AU]
-11.5
-12.0
-12.5
-13.0
-13.5
-14.0
log I_ν [erg/s/cm²/Hz/sr]

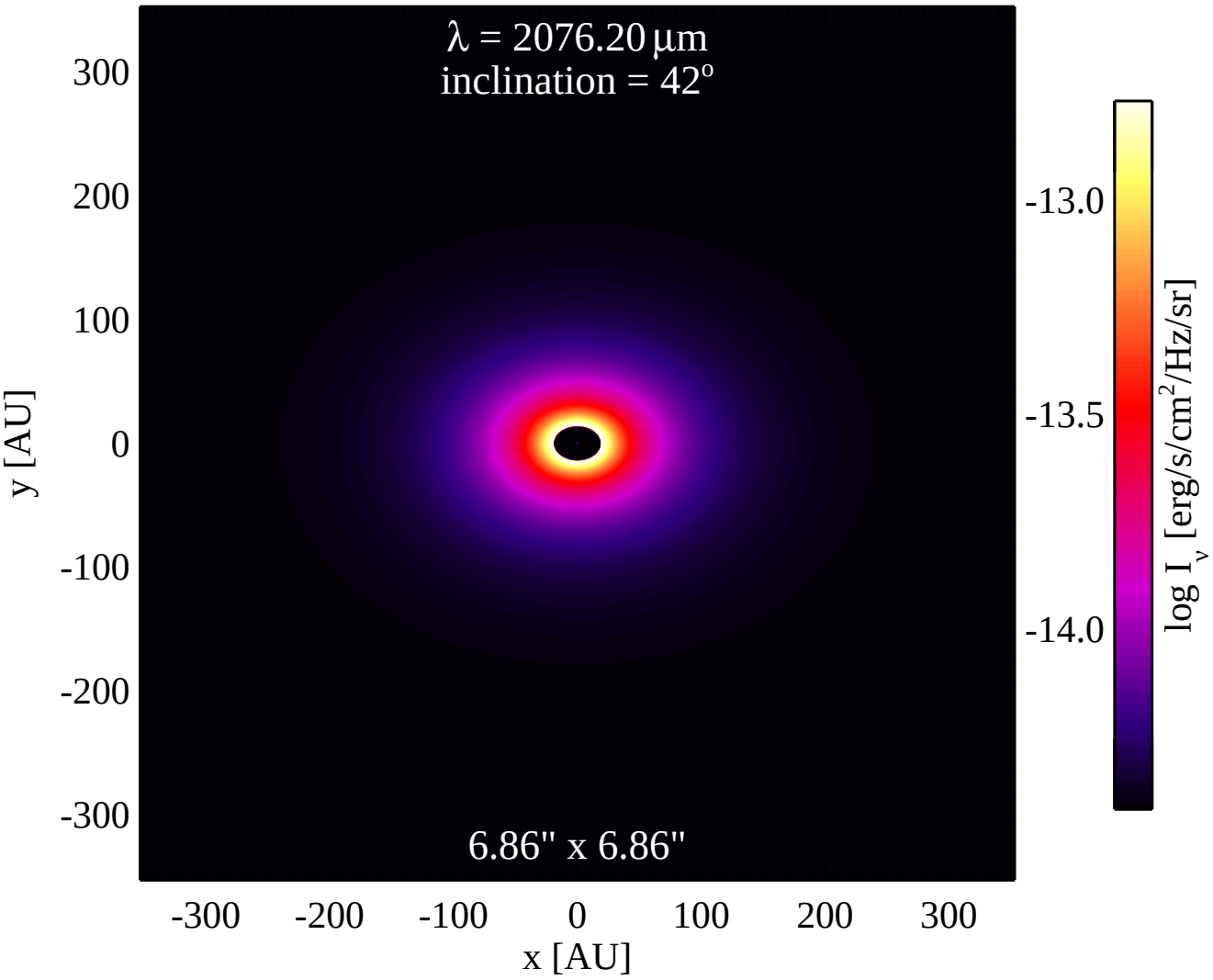

λ = 653.52 μm
inclination = 42°
6.51" x 6.51"
300
200
100
0
-100
-200
-300
y [AU]
-300
-200
-100
0
100
200
300
x [AU]
-11.5
-12.0
-12.5
-13.0
-13.5
-14.0
-14.5
log I_ν [erg/s/cm²/Hz/sr]

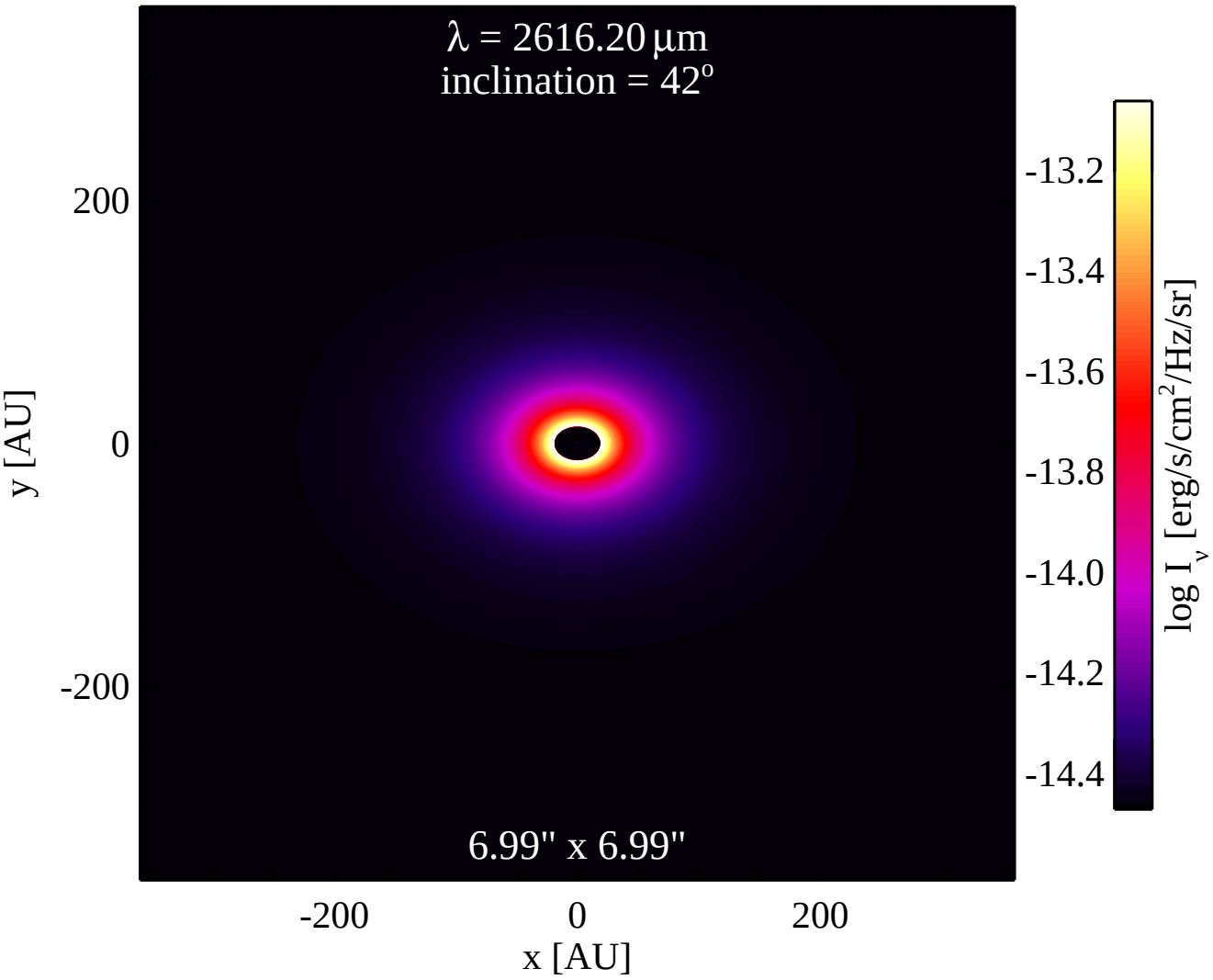

λ = 823.50 μm
inclination = 42°
6.61" x 6.61"
300
200
100
0
-100
-200
-300
y [AU]
-300
-200
-100
0
100
200
300
x [AU]
-12.0
-12.5
-13.0
-13.5
-14.0
-14.5
log I_ν [erg/s/cm²/Hz/sr]

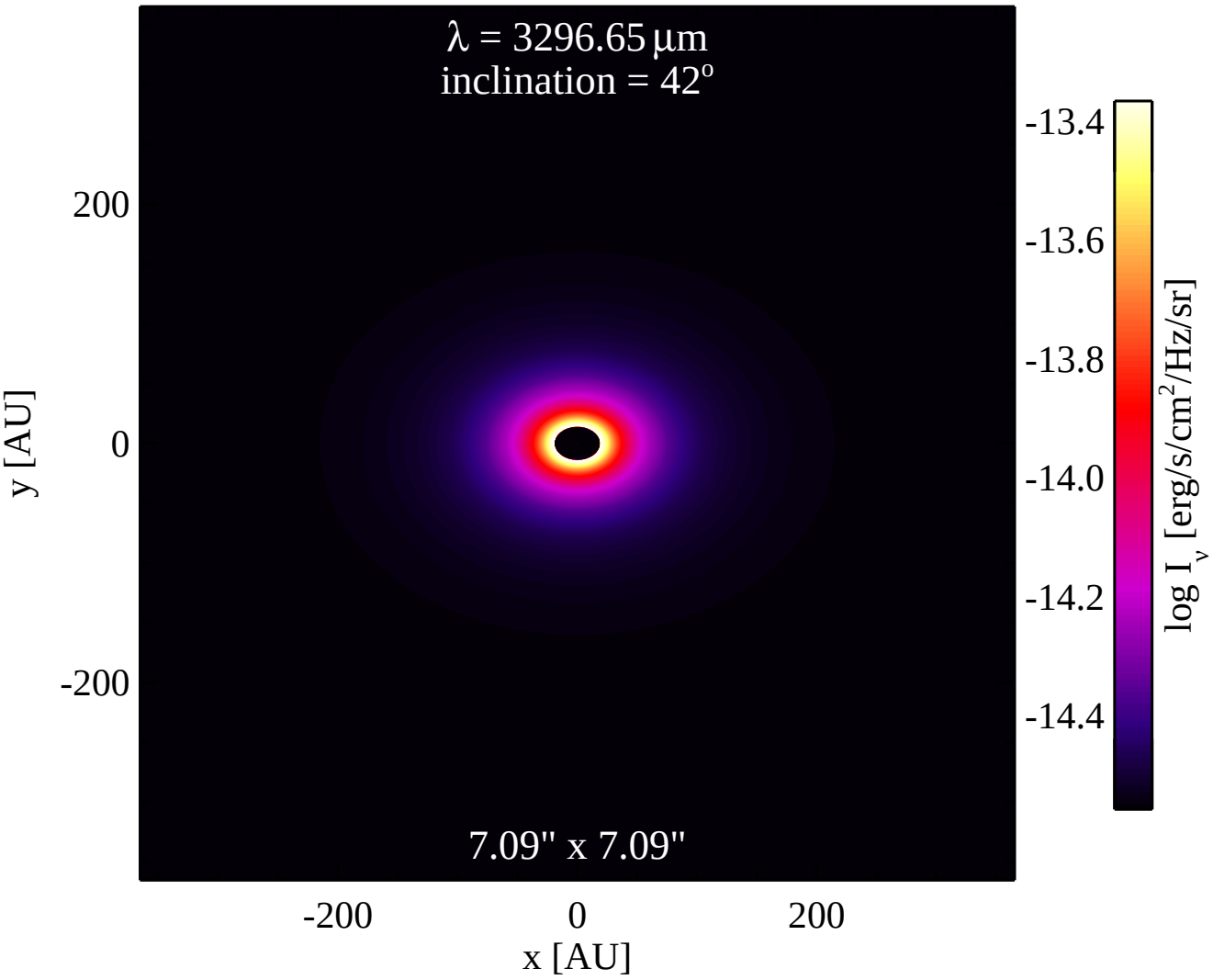

λ = 1037.68 μm
inclination = 42°
6.69" x 6.69"
300
200
100
0
-100
-200
-300
y [AU]
-300
-200
-100
0
100
200
300
x [AU]
-12.0
-12.5
-13.0
-13.5
-14.0
-14.5
log I_ν [erg/s/cm²/Hz/sr]

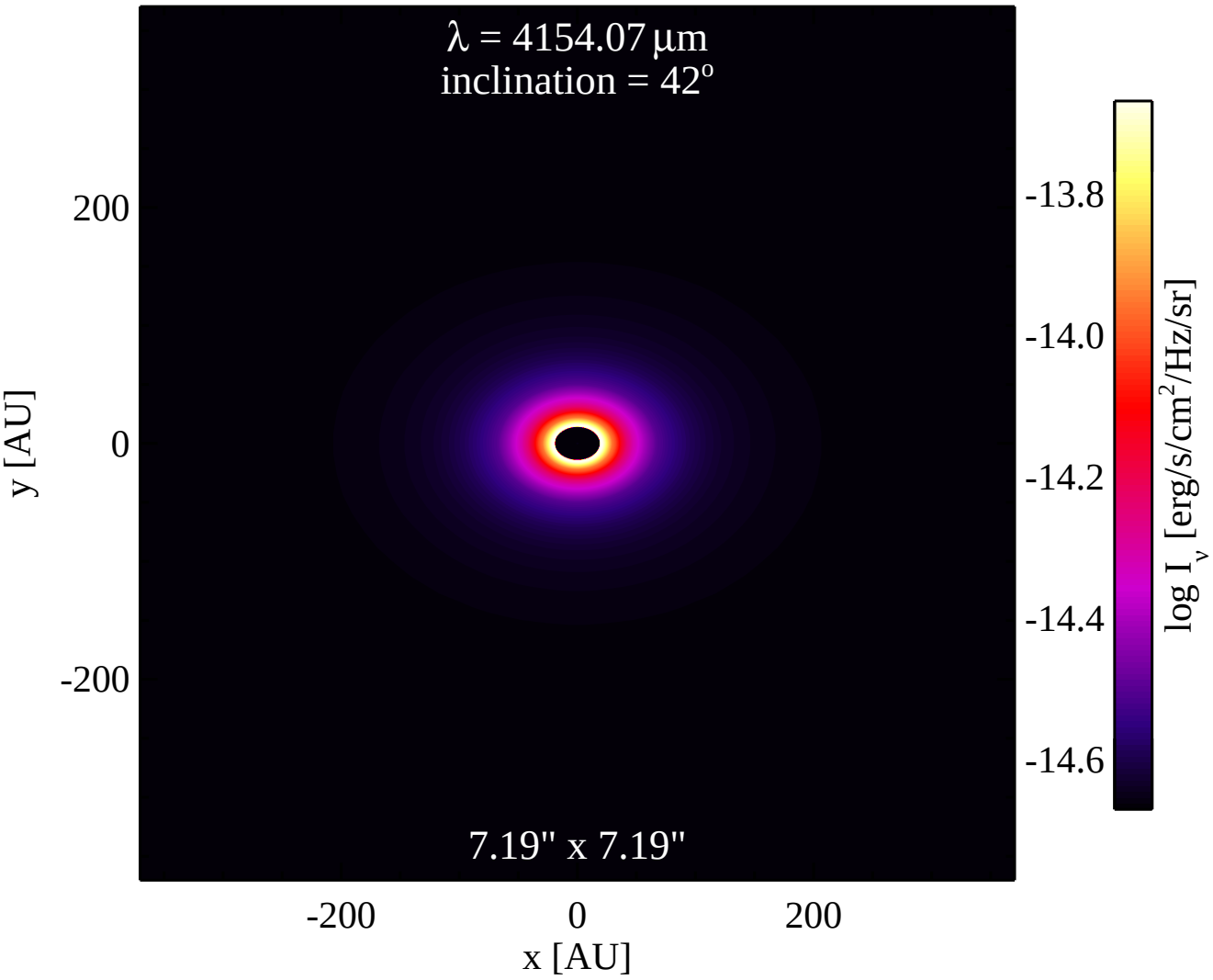

λ = 1307.57 μm
inclination = 42°
6.76" x 6.76"
300
200
100
0
-100
-200
-300
y [AU]
-300
-200
-100
0
100
200
300
x [AU]
-12.5
-13.0
-13.5
-14.0
log I_ν [erg/s/cm²/Hz/sr]


λ = 1647.66 μm
inclination = 42°
6.85" x 6.85"
300
200
100
0
-100
-200
-300
y [AU]
-300
-200
-100
0
100
200
300
x [AU]
-12.5
-13.0
-13.5
-14.0
log I_ν [erg/s/cm²/Hz/sr]


λ = 2076.20 μm
inclination = 42°
6.86" x 6.86"
300
200
100
0
-100
-200
-300
y [AU]
-300
-200
-100
0
100
200
300
x [AU]
-13.0
-13.5
-14.0
log I_ν [erg/s/cm²/Hz/sr]


λ = 2616.20 μm
inclination = 42°
6.99" x 6.99"
200
0
-200
y [AU]
-200
0
200
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 = 3296.65 μm
inclination = 42°
7.09" x 7.09"
200
0
-200
y [AU]
-200
0
200
x [AU]
-13.4
-13.6
-13.8
-14.0
-14.2
-14.4
log I_ν [erg/s/cm²/Hz/sr]


λ = 4154.07 μm
inclination = 42°
7.19" x 7.19"
200
0
-200
y [AU]
-200
0
200
x [AU]
-13.8
-14.0
-14.2
-14.4
-14.6
log I_ν [erg/s/cm²/Hz/sr]