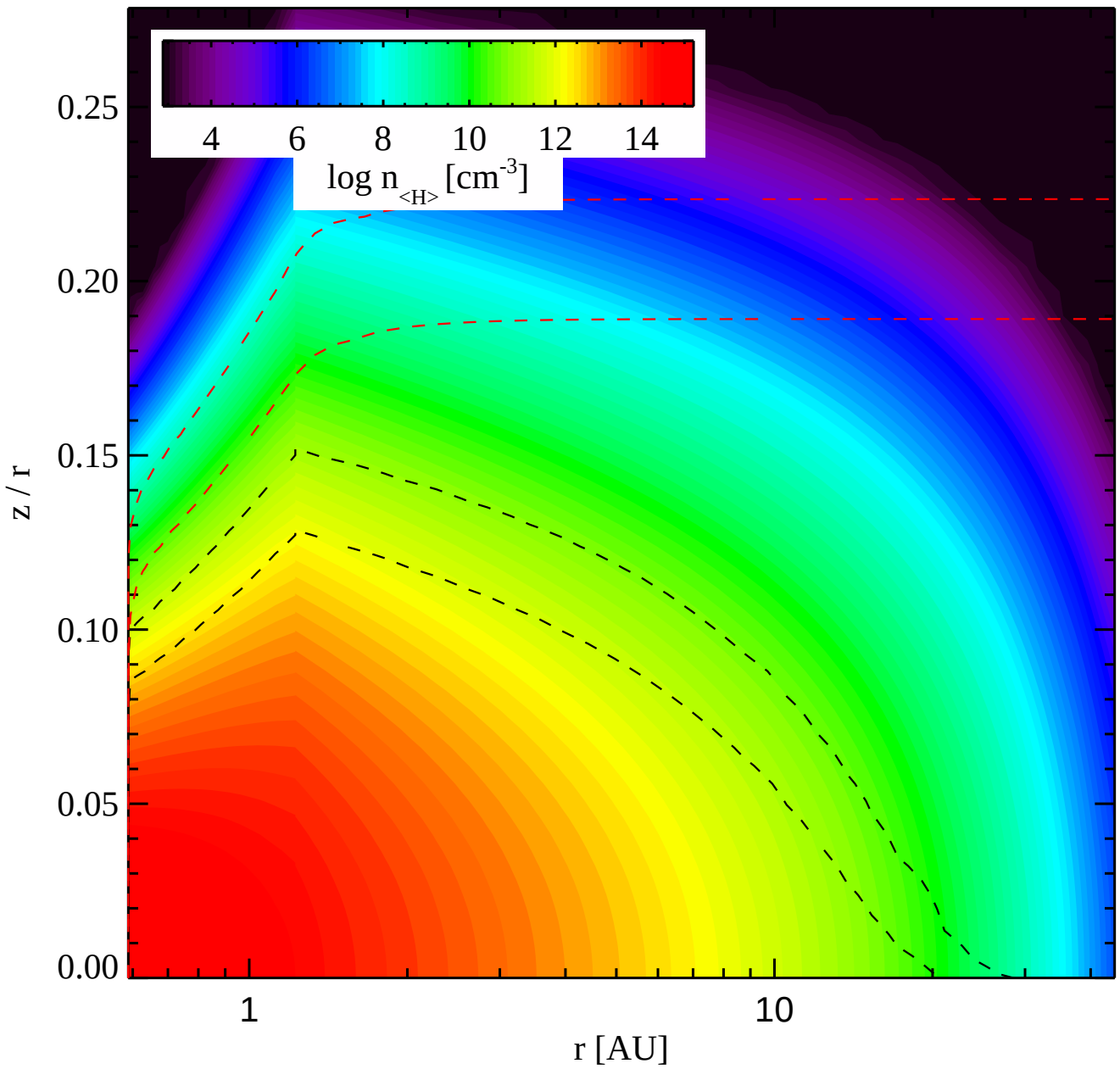
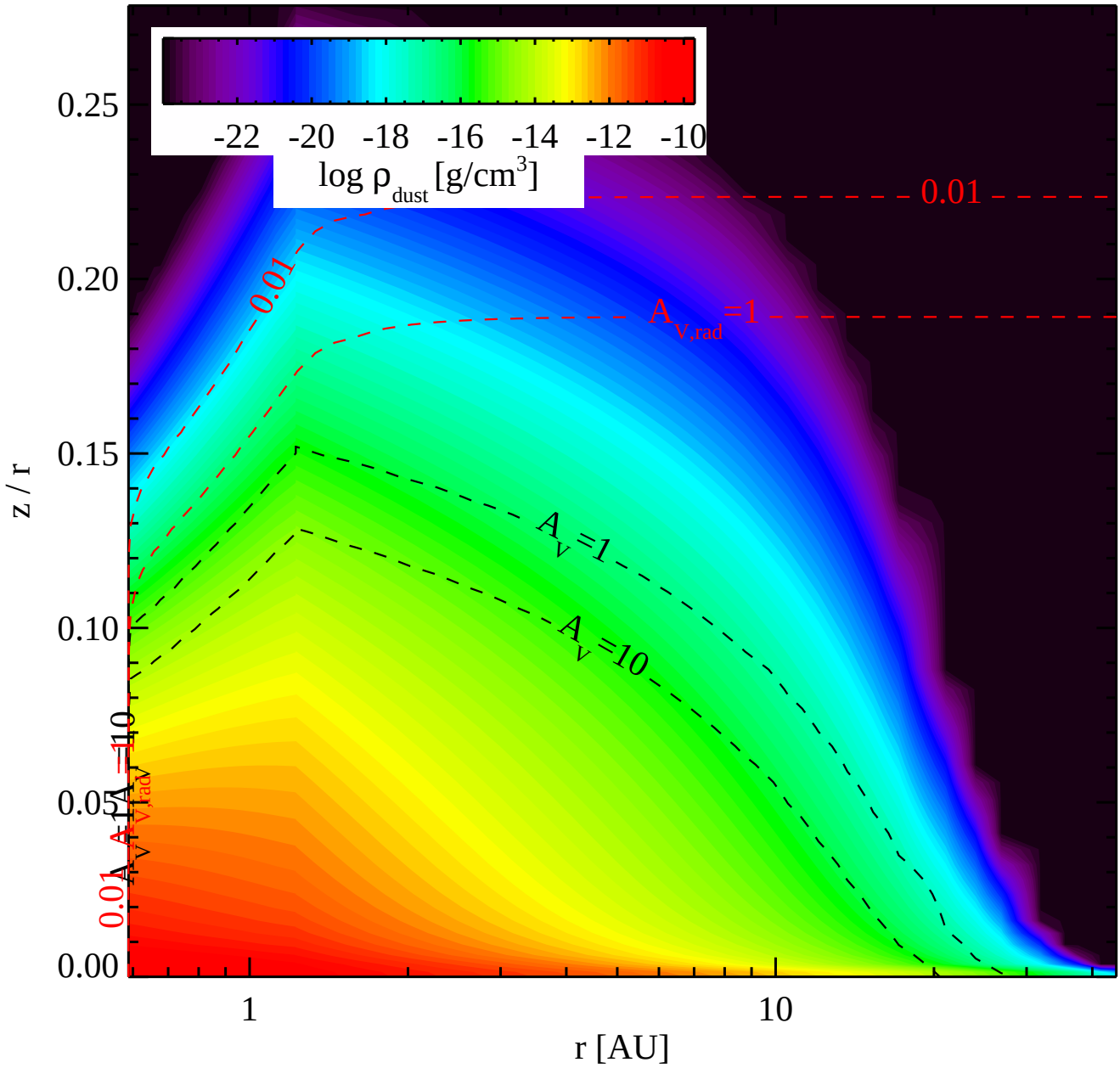
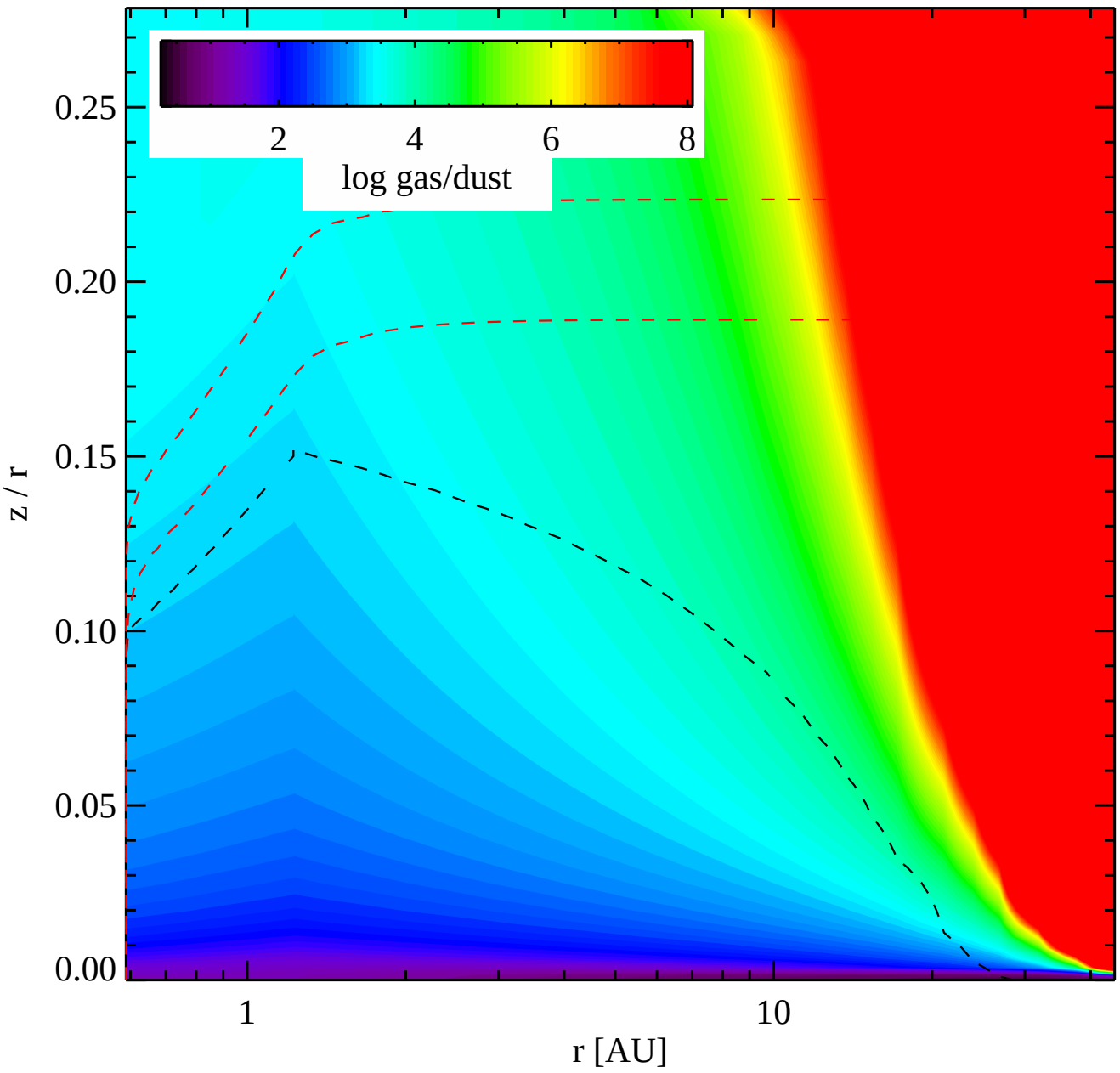
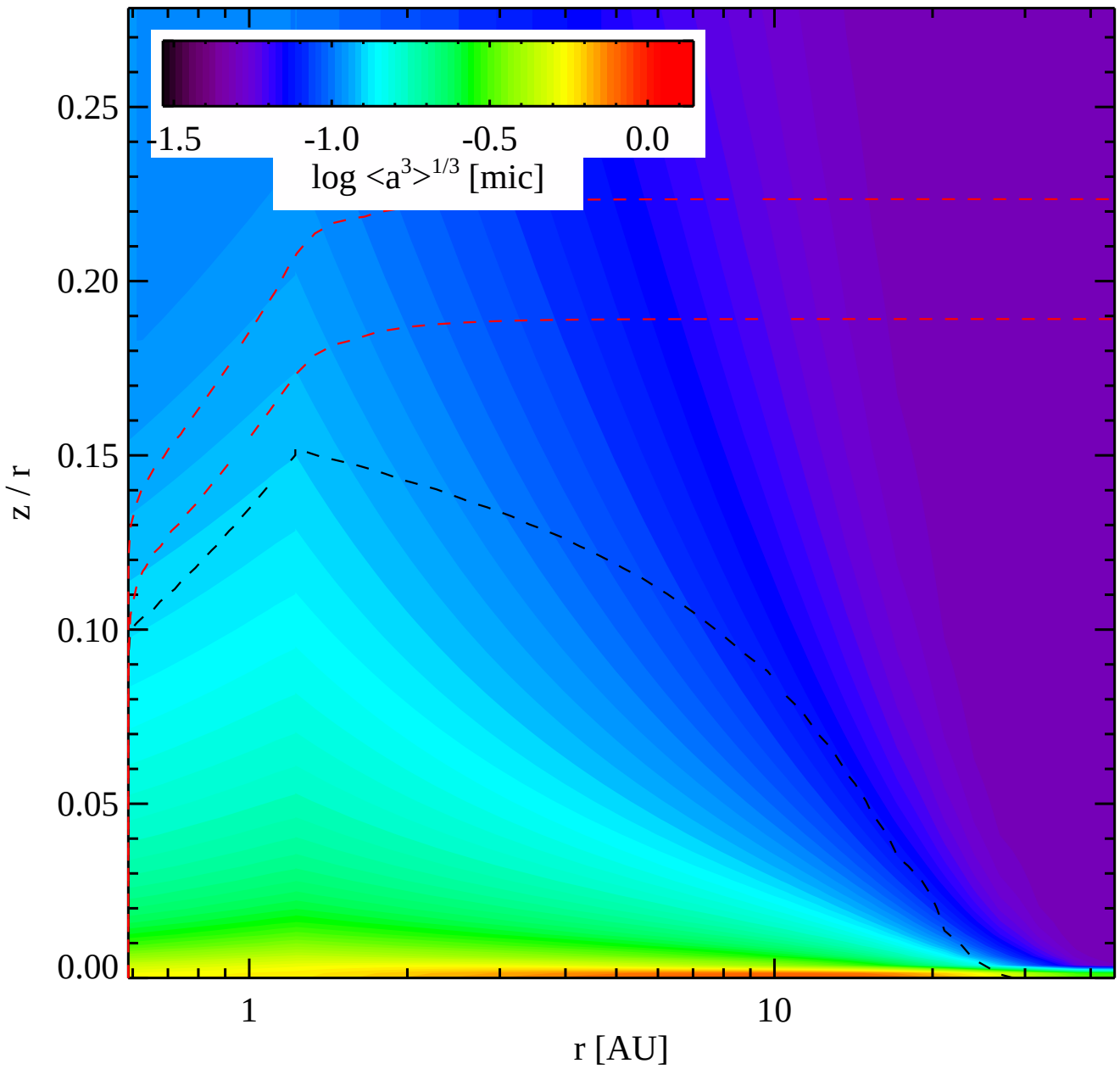
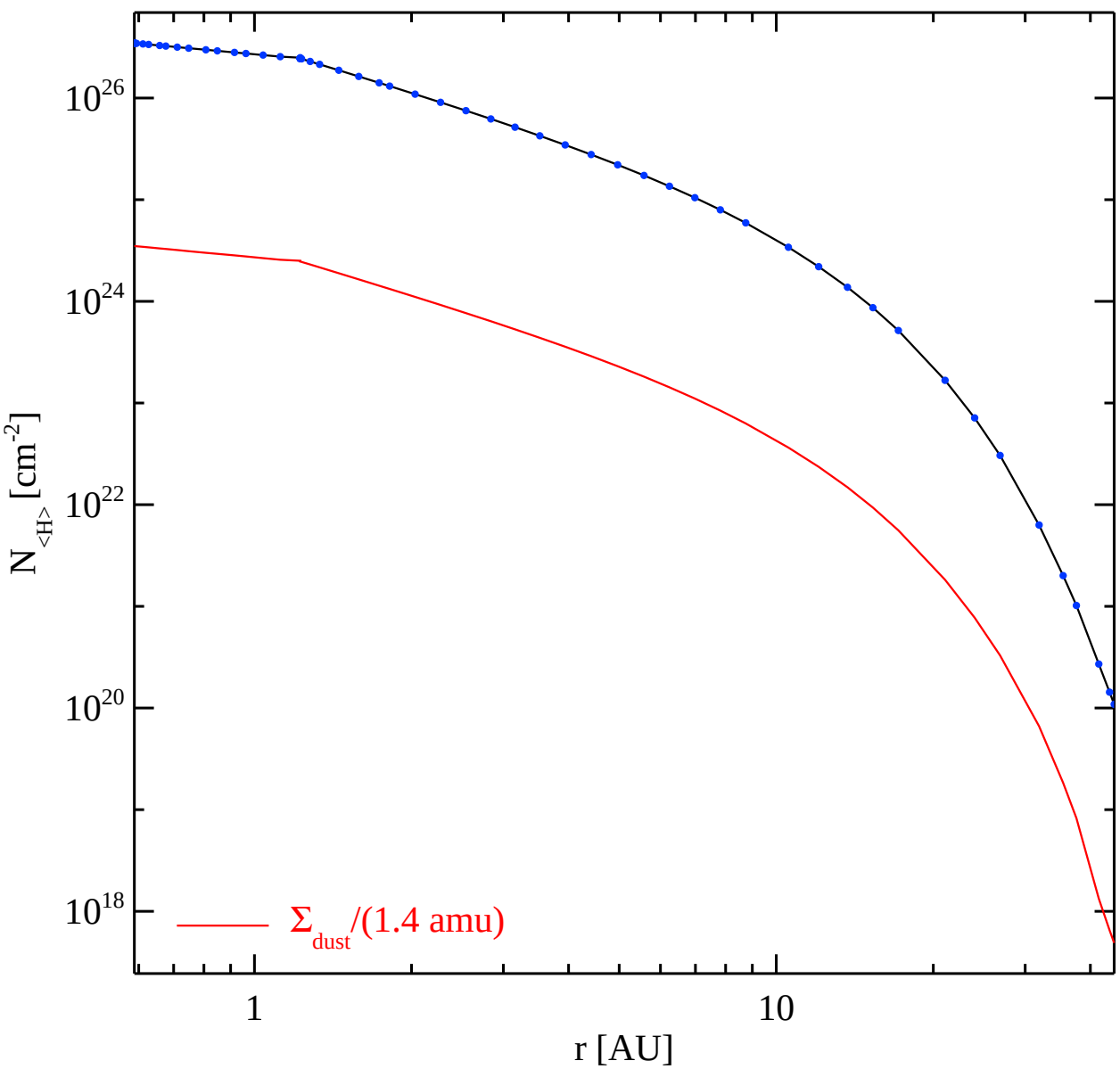
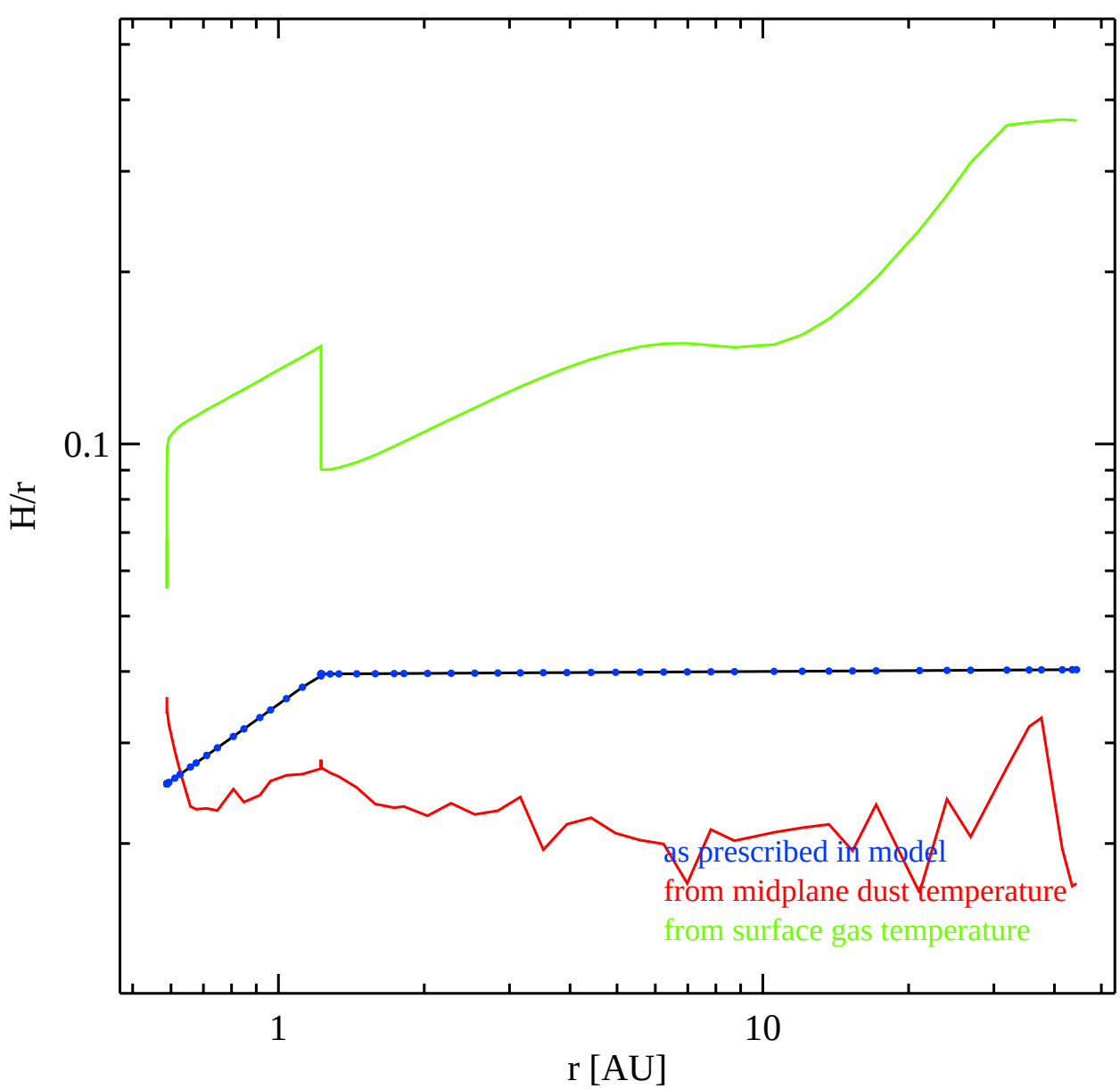

4
6
8
10
12
14
log n<H> [cm-3]
0.25
0.20
0.15
0.10
0.05
0.00
z / r
1
10
r [AU]

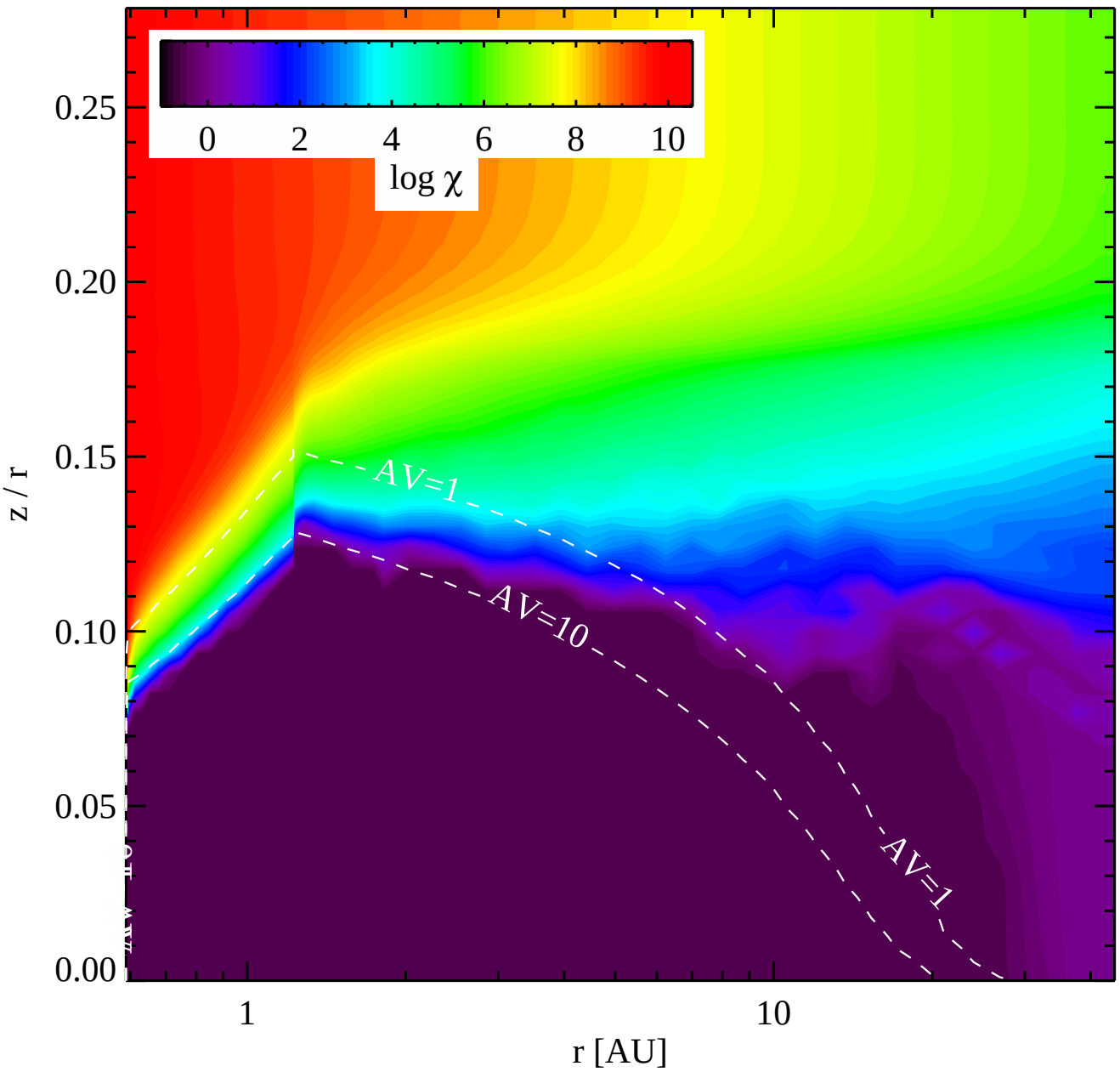

-22 -20 -18 -16 -14 -12 -10
log ρ dust [g/cm3]
0.25
0.20
0.15
0.10
0.05
0.00
z / r
1
10
r [AU]
0.01
A V,rad =1
0.01
A V,rad =1
A V =1
A V =10
0.01
A V,rad =1
A V =10

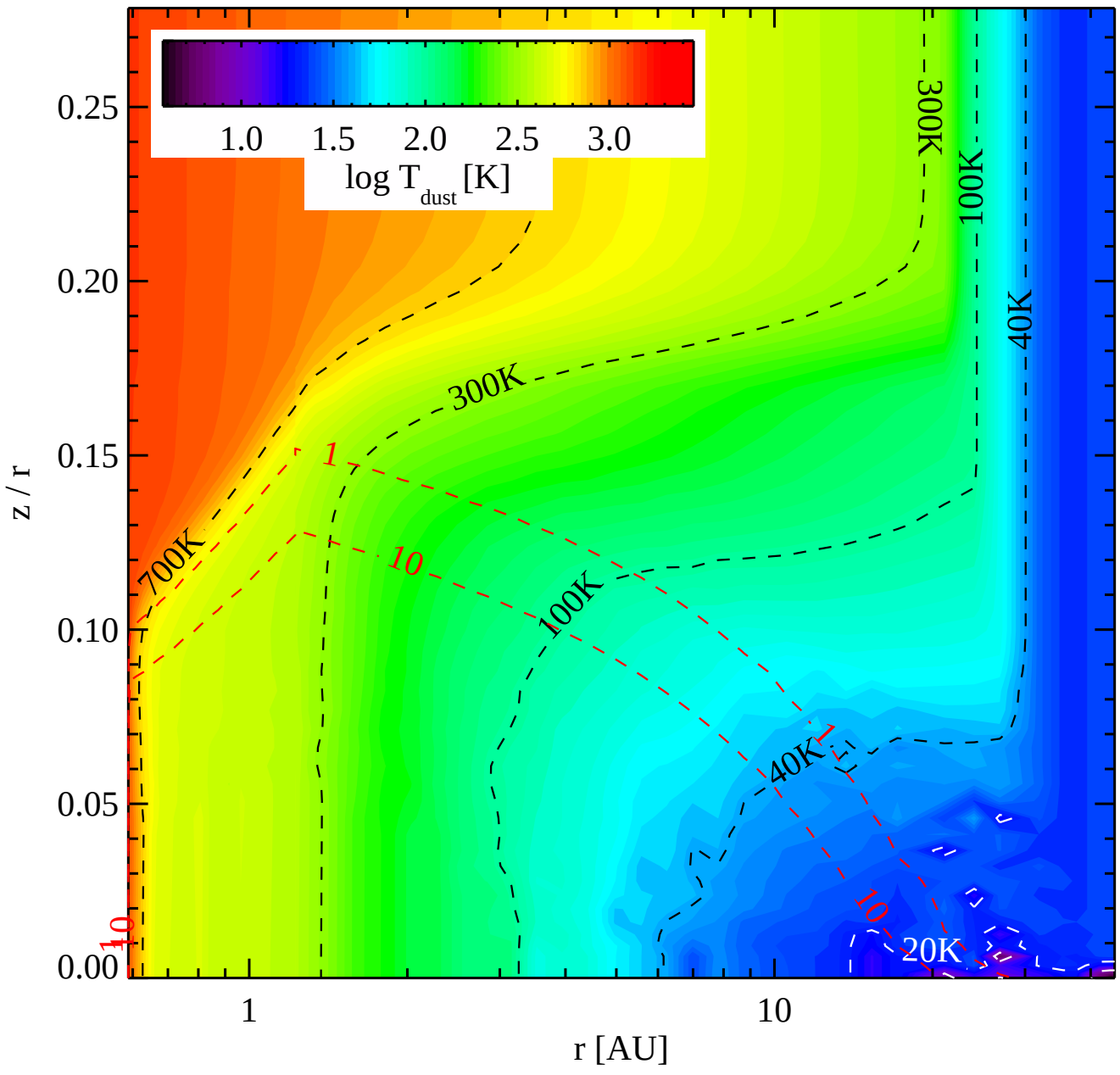

2
4
6
8
log gas/dust
0.25
0.20
0.15
0.10
0.05
0.00
z / r
1
10
r [AU]

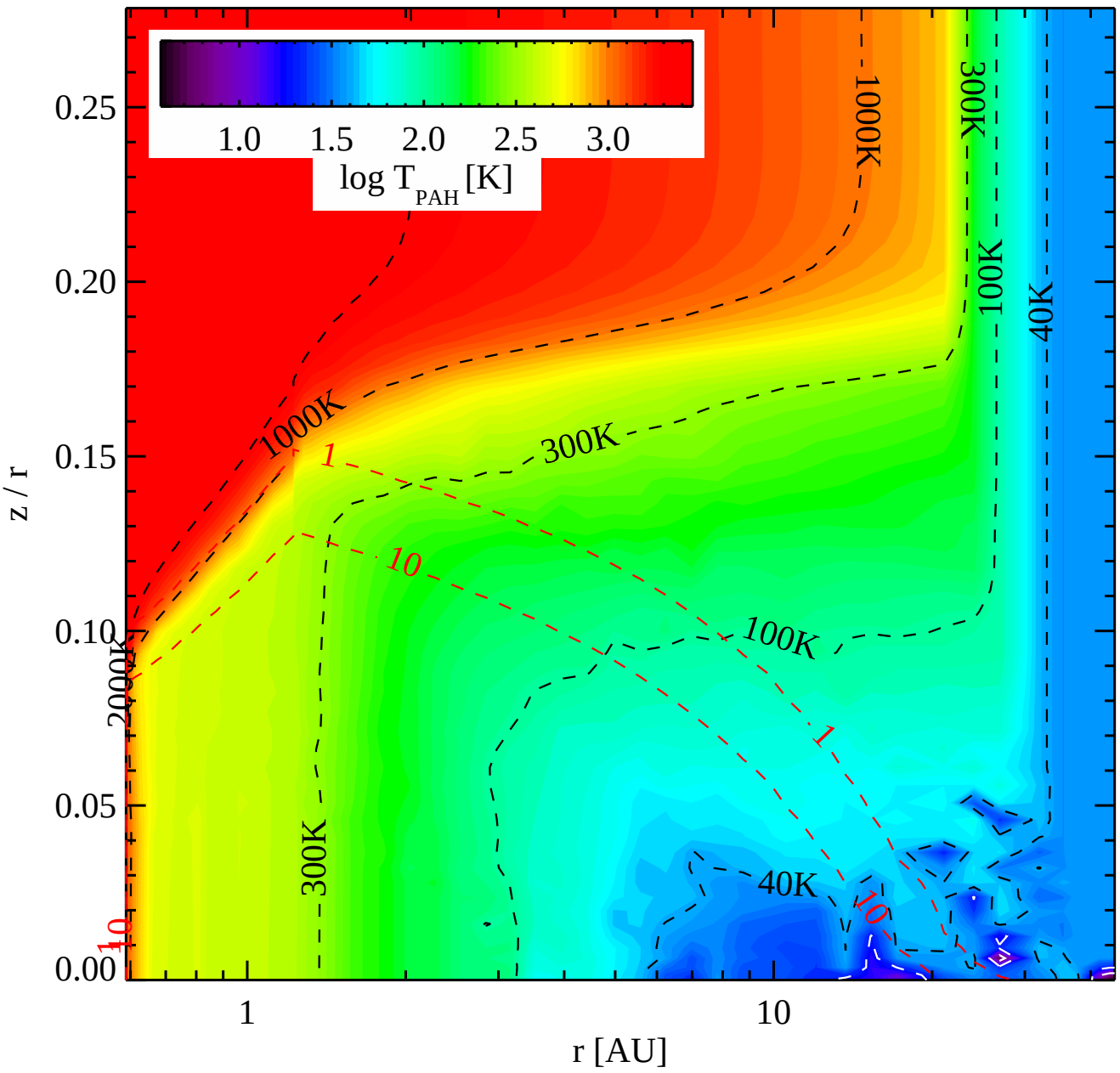

-1.5
-1.0
-0.5
0.0
log <a^3>^1/3 [mic]
0.25
0.20
0.15
0.10
0.05
0.00
z / r
1
10
r [AU]


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

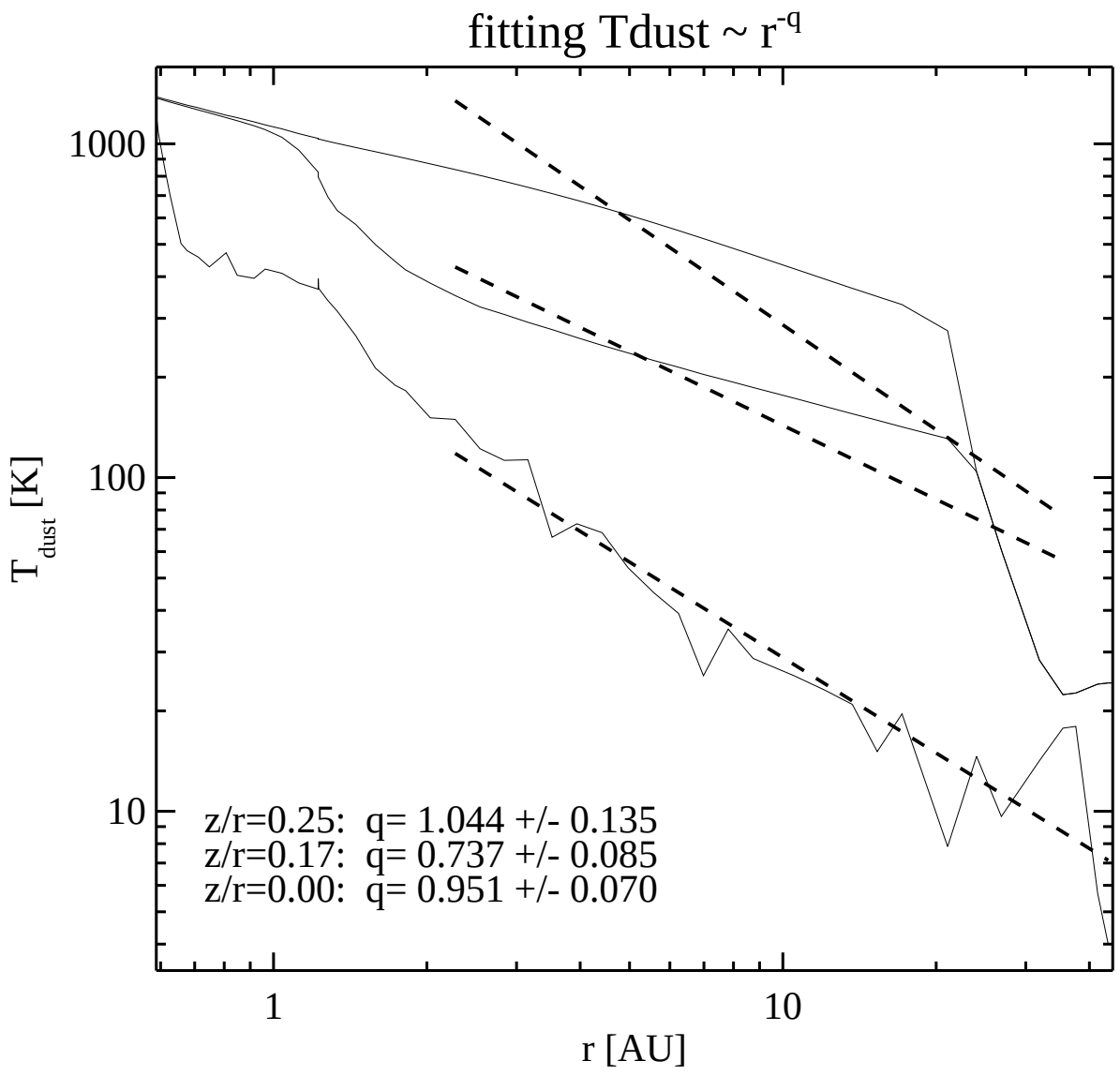

0.1
H/r
1
10
r [AU]
as prescribed in model
from midplane dust temperature
from surface gas temperature

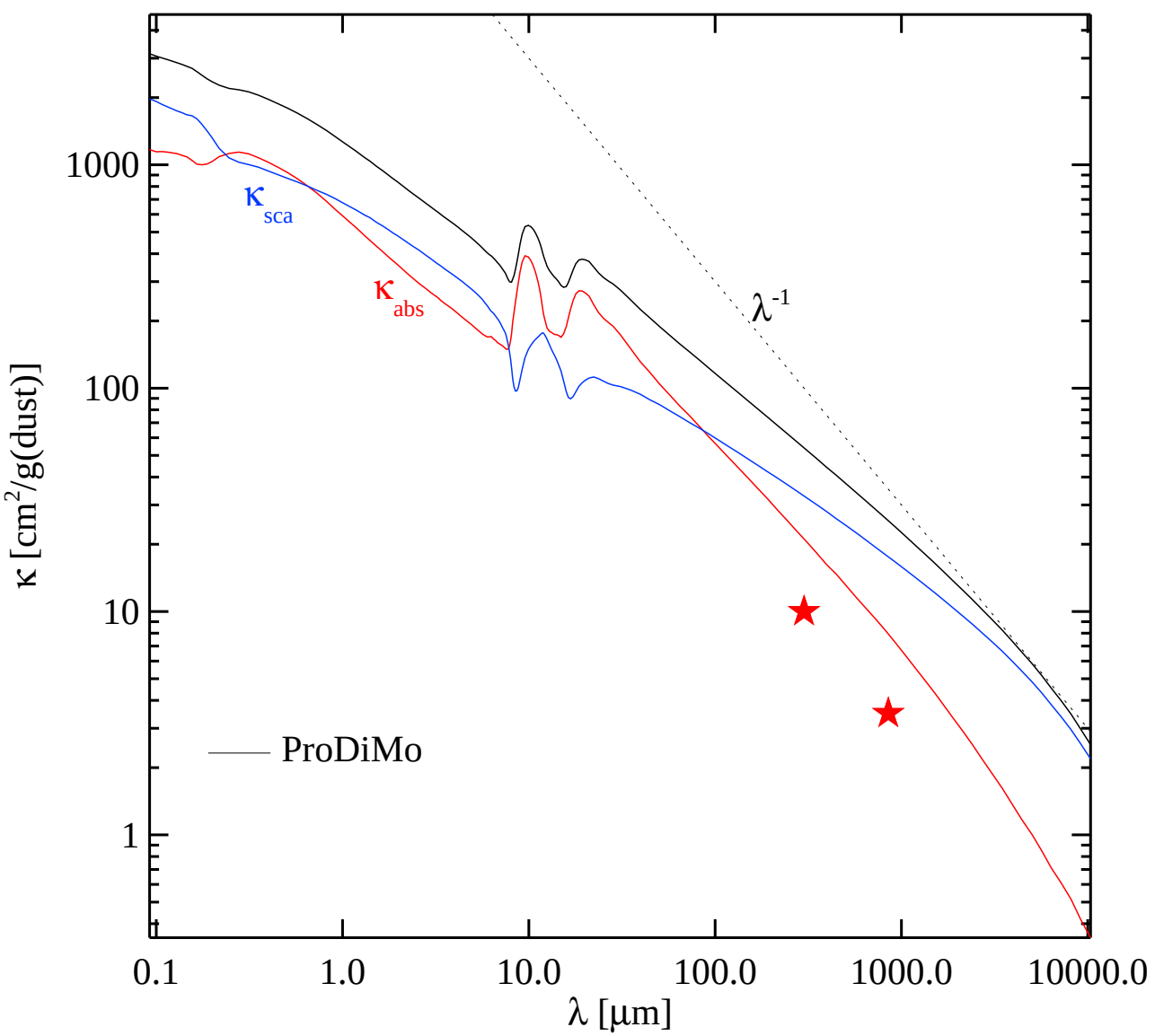

0
2
4
6
8
10
log χ
0.25
0.20
0.15
0.10
0.05
0.00
z / r
AV=1
AV=10
AV=1
1
10
r [AU]

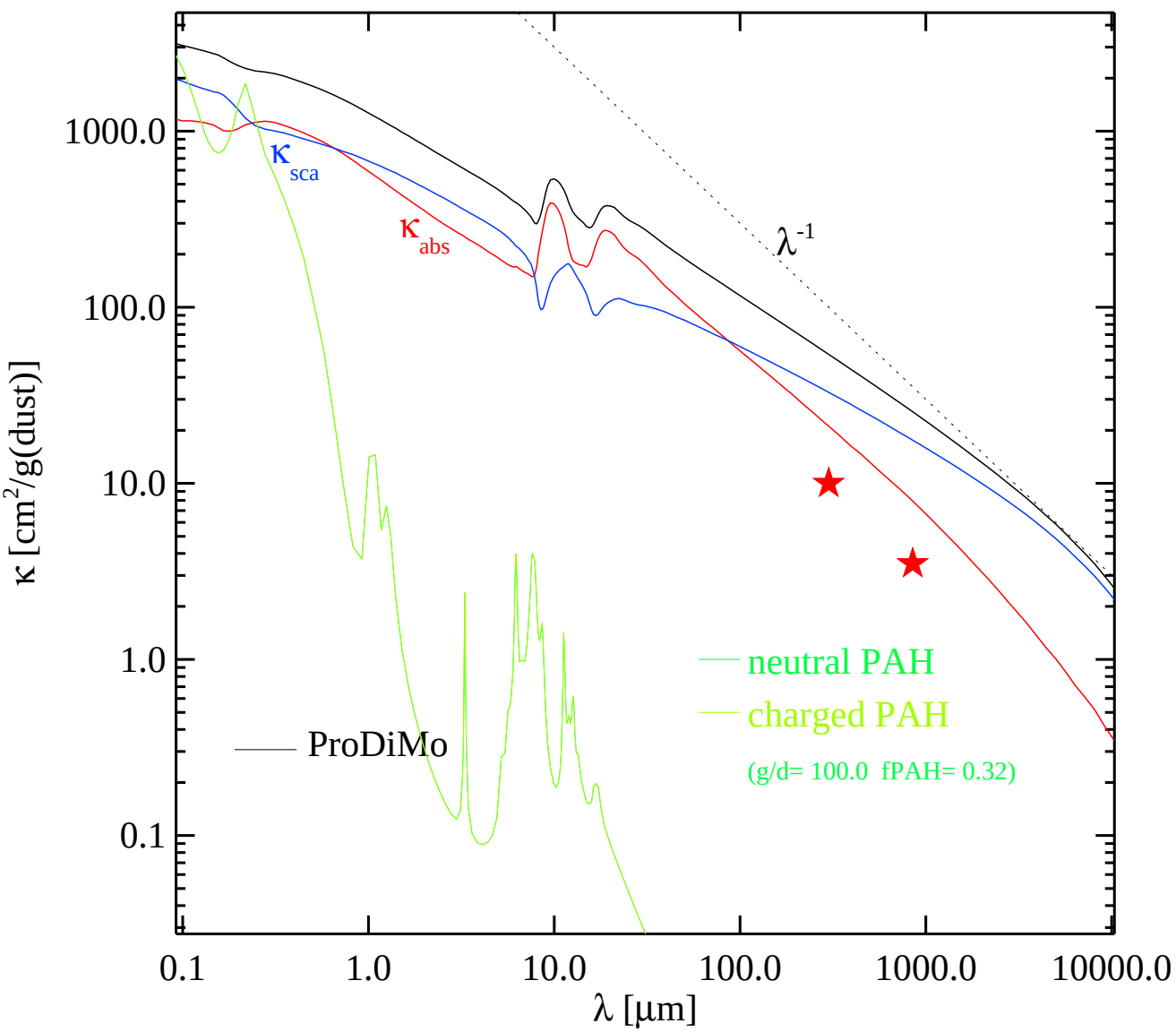

1.0
1.5
2.0
2.5
3.0
log T dust [K]
0.25
0.20
0.15
0.10
0.05
0.00
z / r
1
10
r [AU]
300K
100K
40K
700K
300K
100K
40K
20K
1
10
1
10

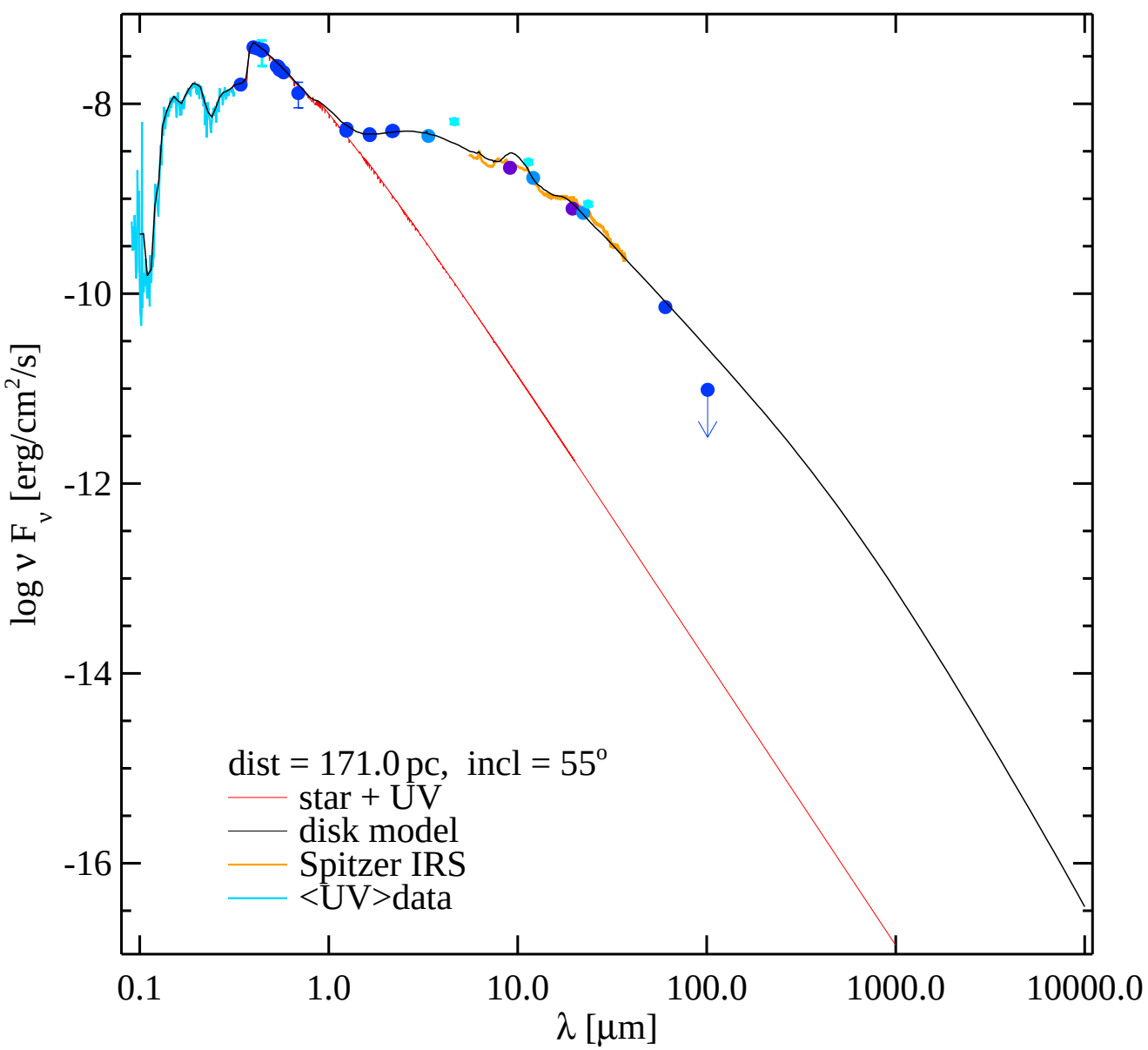


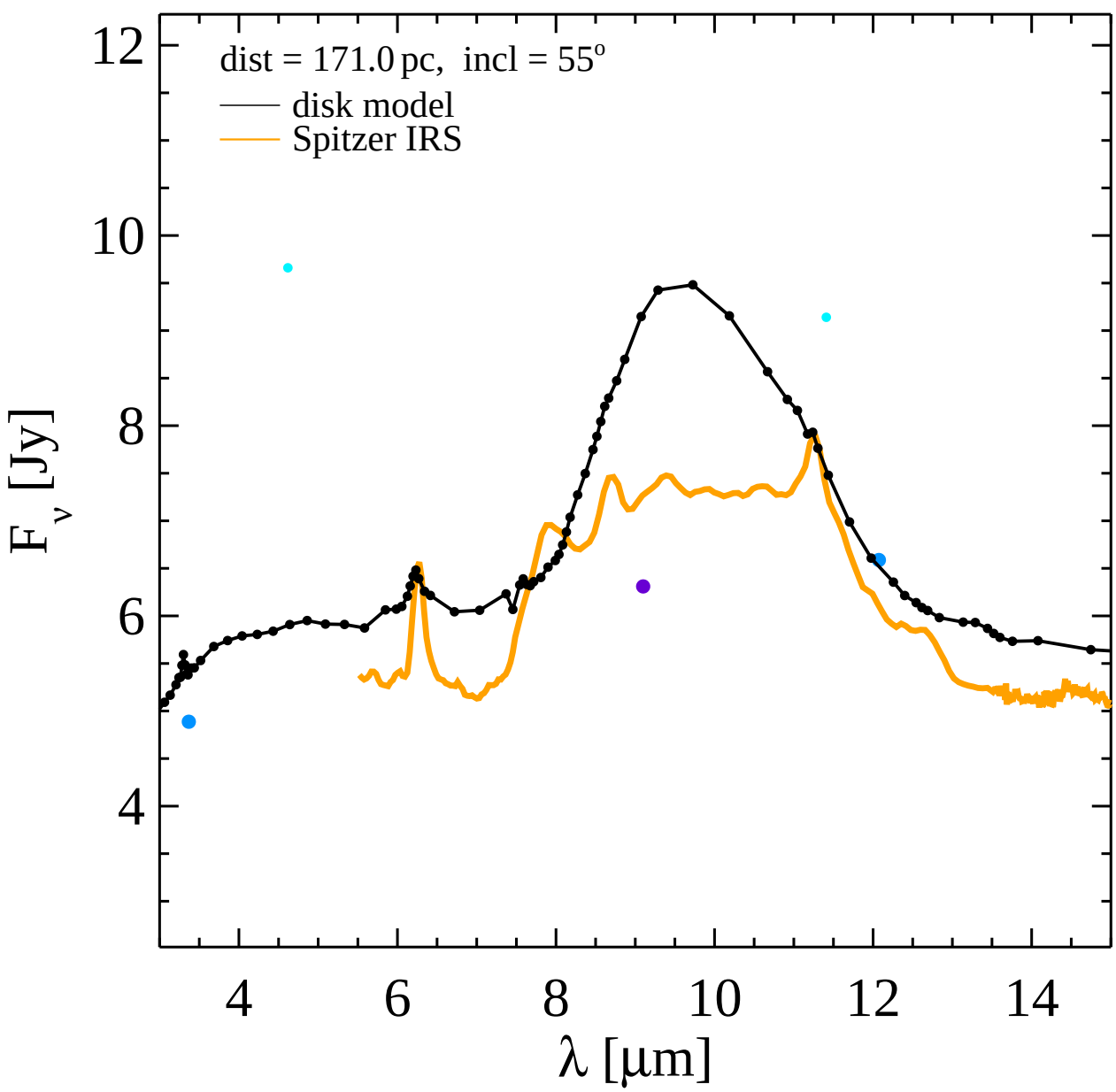
1.0
1.5
2.0
2.5
3.0
log T_PAH [K]
0.25
0.20
0.15
0.10
0.05
0.00
z / r
1
10
r [AU]
1000K
300K
100K
40K
2000K
1
10

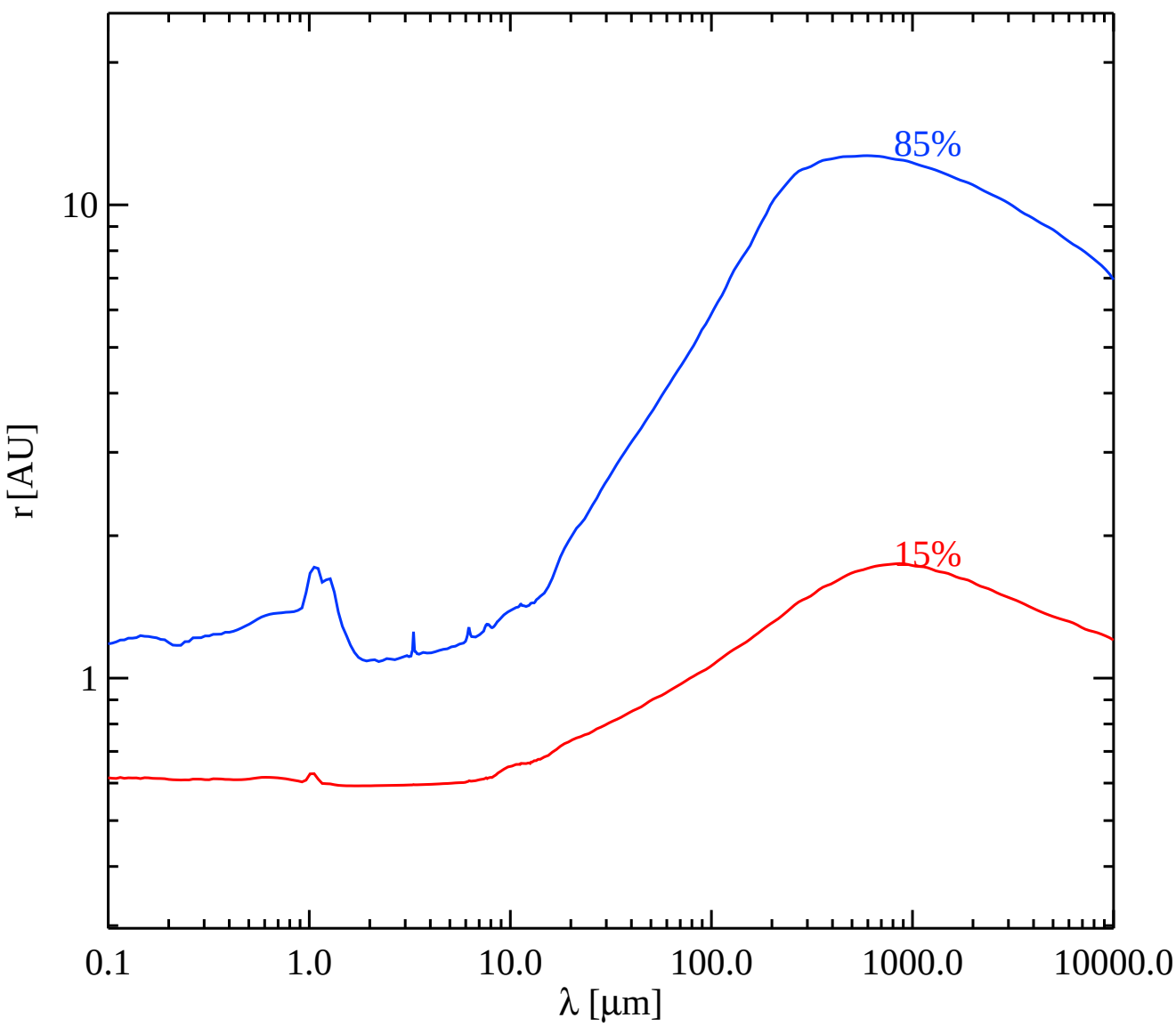

fitting Tdust ~ r^-q
1000
100
10
T dust [K]
1
10
r [AU]
z/r=0.25: q= 1.044 +/- 0.135
z/r=0.17: q= 0.737 +/- 0.085
z/r=0.00: q= 0.951 +/- 0.070

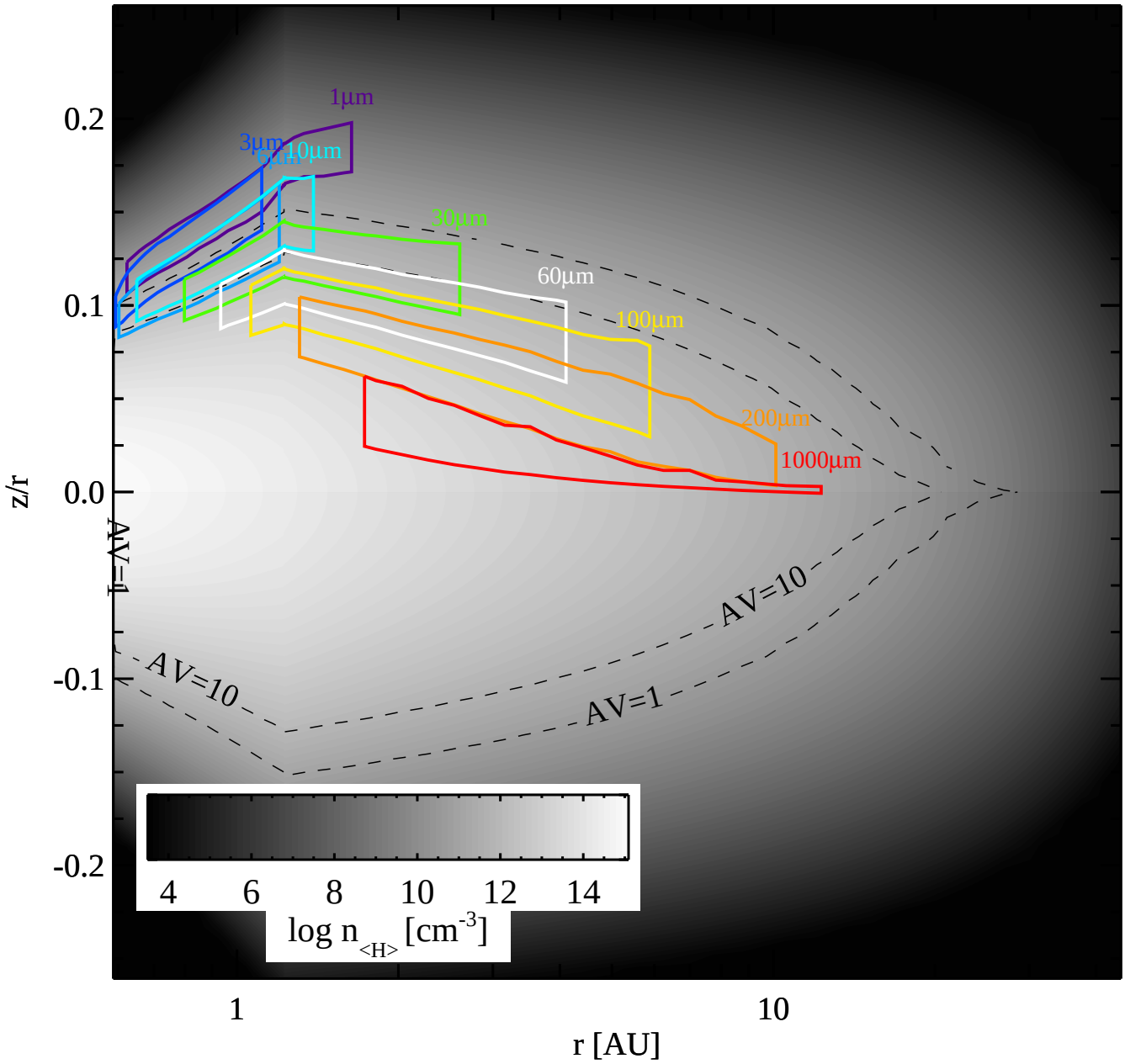

1000
100
10
1
κ [cm²/g(dust)]
κsca
κabs
λ-1
ProDiMo
0.1
1.0
10.0
100.0
1000.0
10000.0
λ [μm]

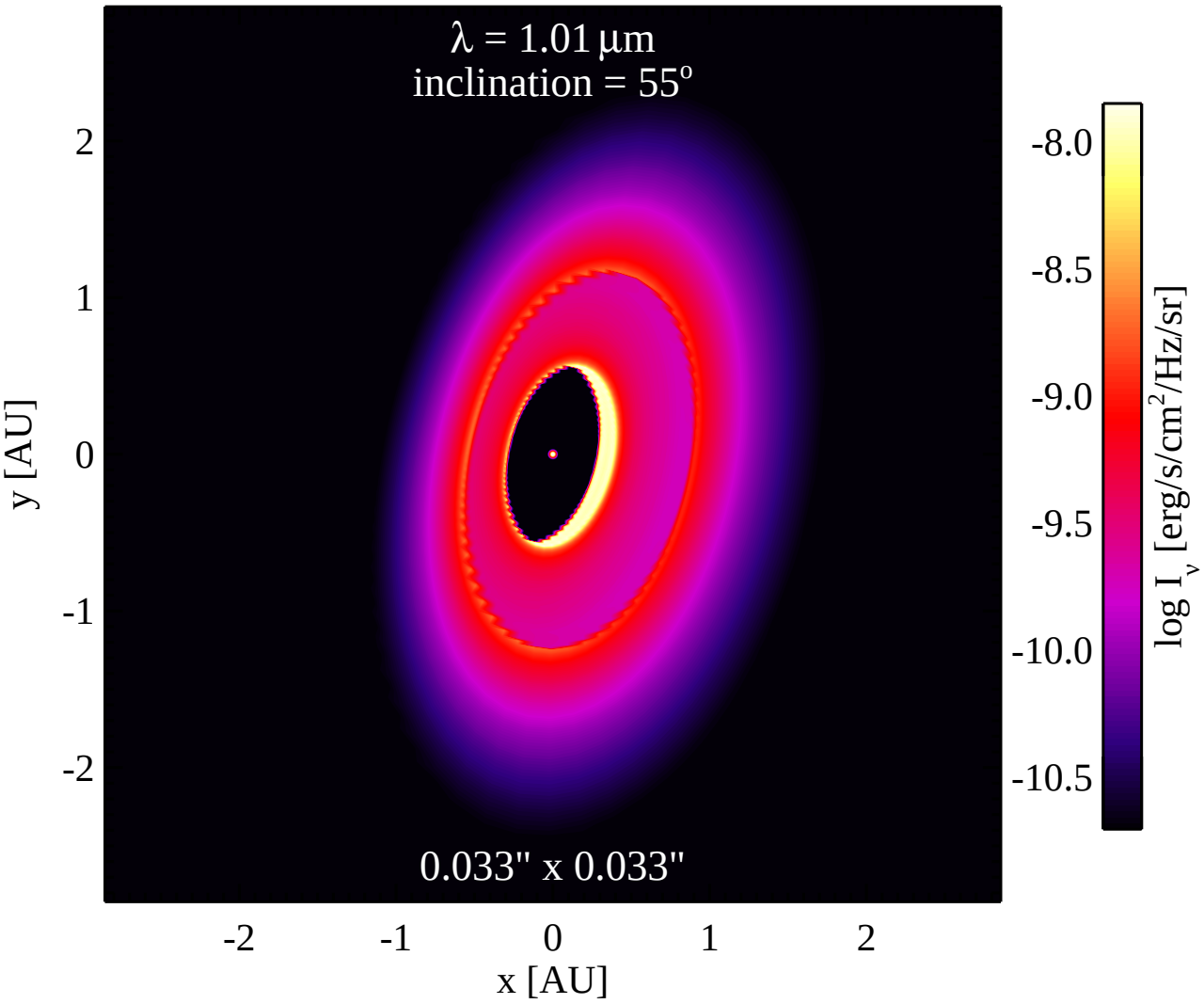

1000.0
100.0
10.0
1.0
0.1
κ [cm²/g(dust)]
κ sca
κ abs
λ -1
neutral PAH
charged PAH
(g/d= 100.0 fPAH= 0.32)
ProDiMo
0.1
1.0
10.0
100.0
1000.0
10000.0
λ [μm]

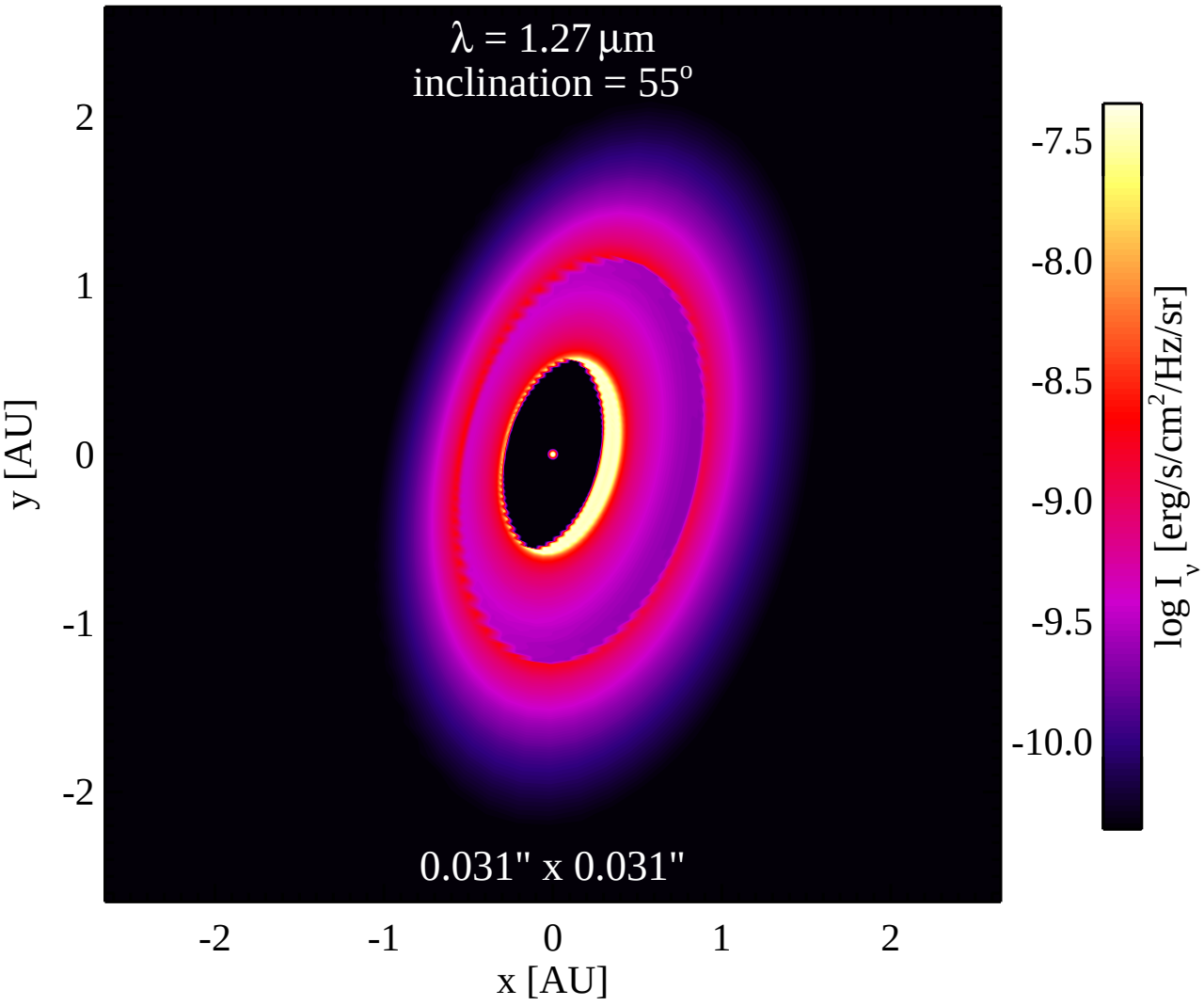

-8
-10
-12
-14
-16
log ν F_ν [erg/cm²/s]
0.1
1.0
10.0
100.0
1000.0
10000.0
λ [μm]
dist = 171.0 pc, incl = 55°
star + UV
disk model
Spitzer IRS
<UV>data

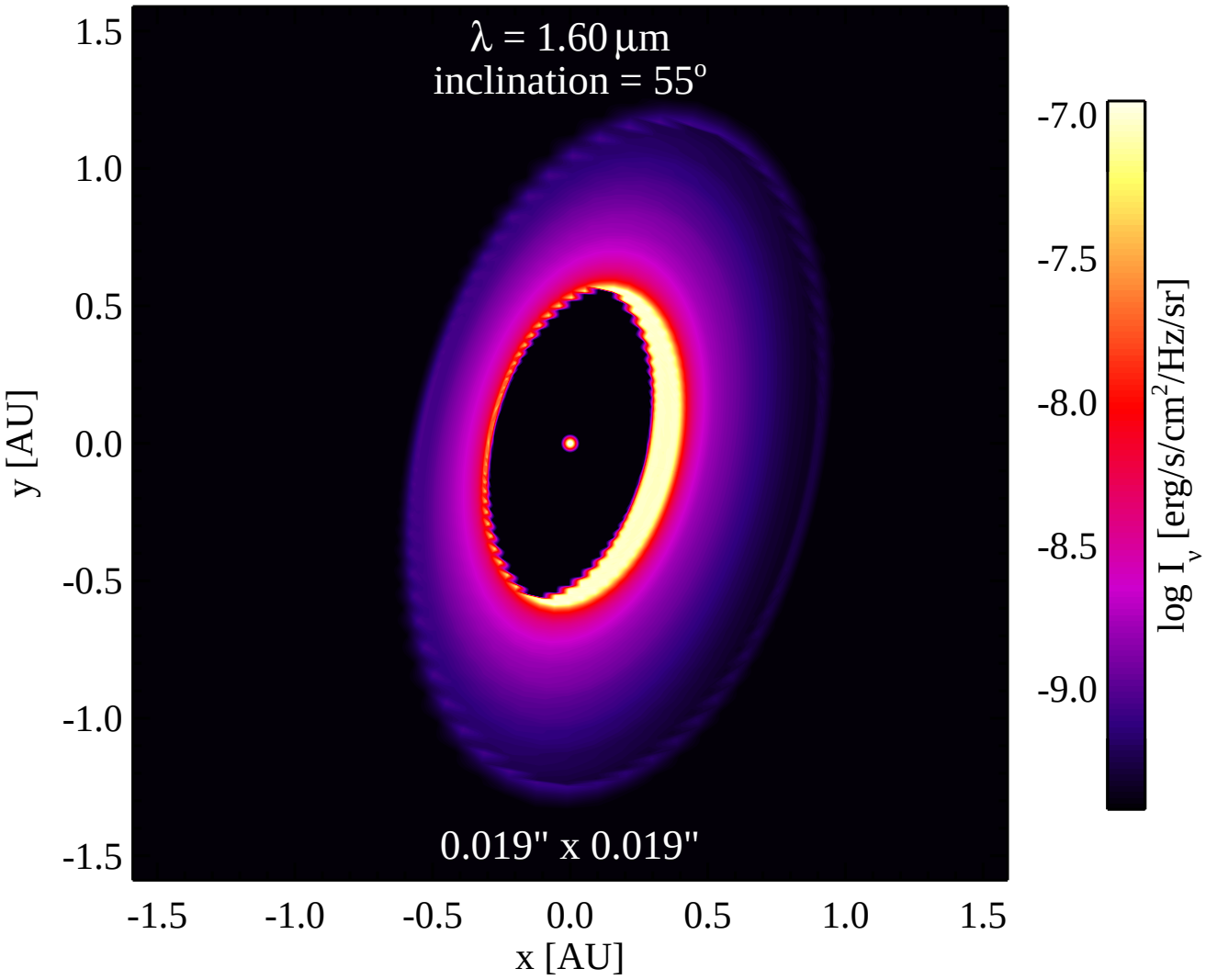

dist = 171.0 pc, incl = 55°
disk model
Spitzer IRS
12
10
8
6
4
F_ν [Jy]
4
6
8
10
12
14
λ [μm]

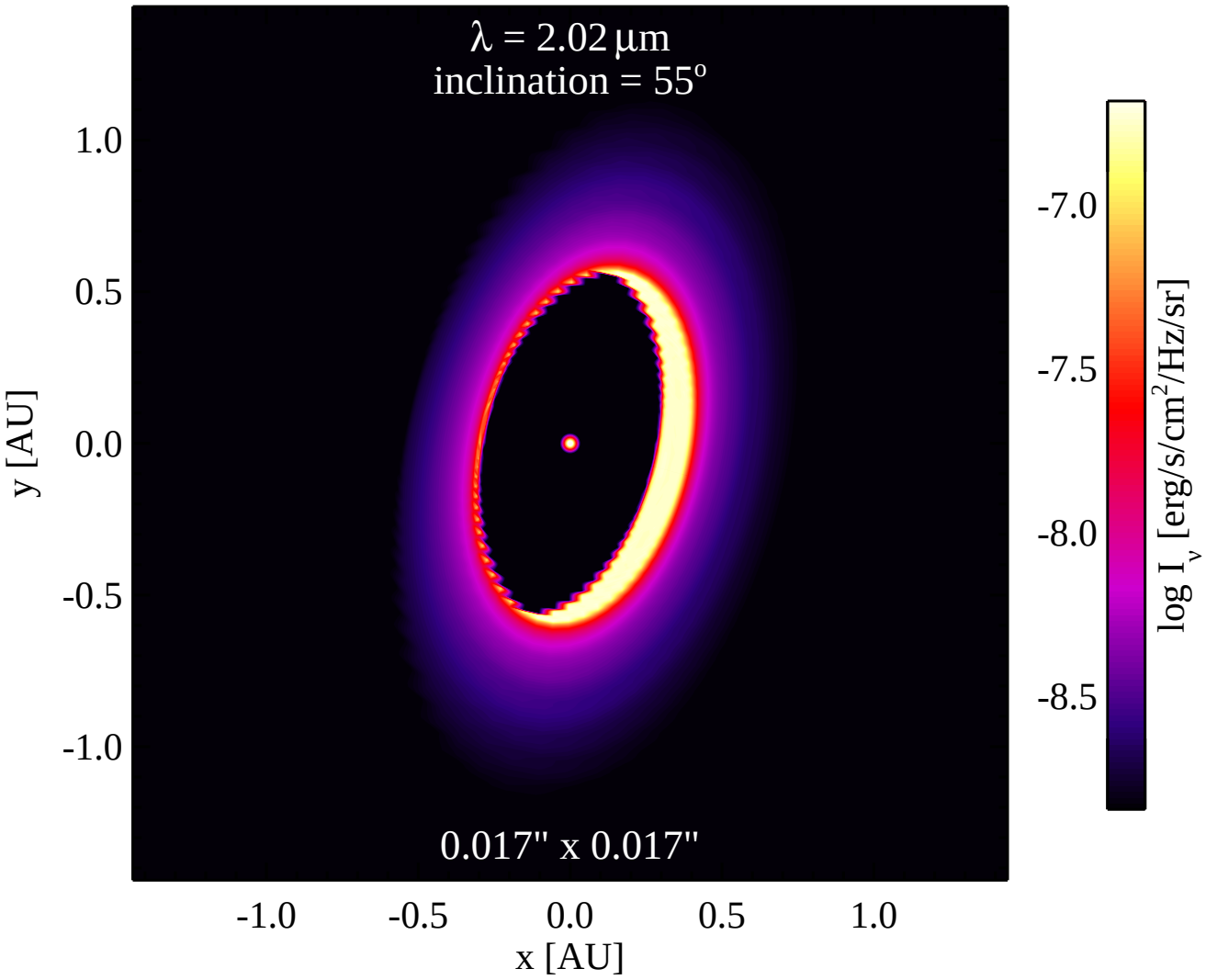

85%
15%
10
1
r [AU]
0.1
1.0
10.0
100.0
1000.0
10000.0
λ [μm]

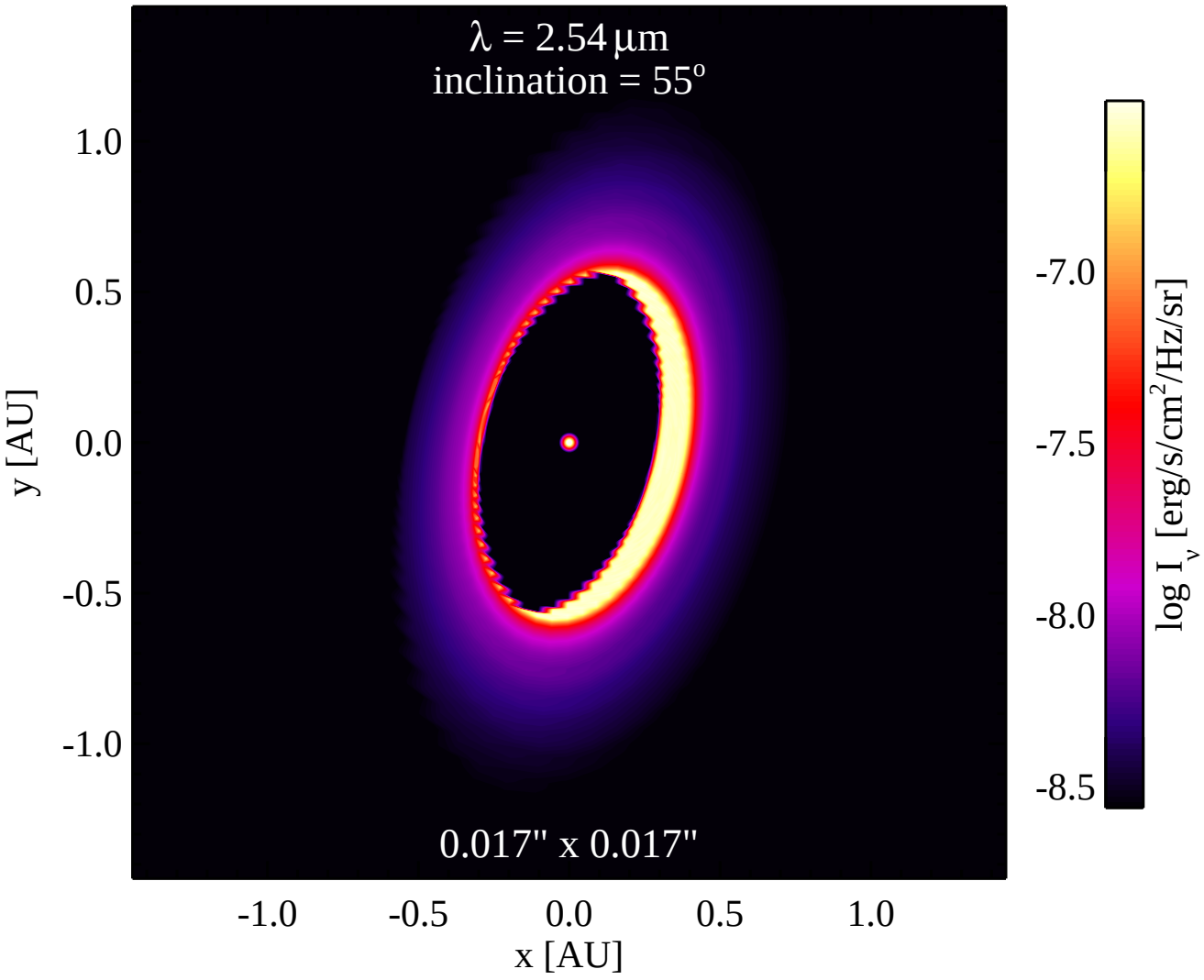

1µm
3µm
10µm
30µm
60µm
100µm
200µm
1000µm
AV=1
AV=10
AV=10
AV=1
0.2
0.1
0.0
-0.1
-0.2
z/r
4
6
8
10
12
14
log n<H> [cm-3]
1
10
r [AU]

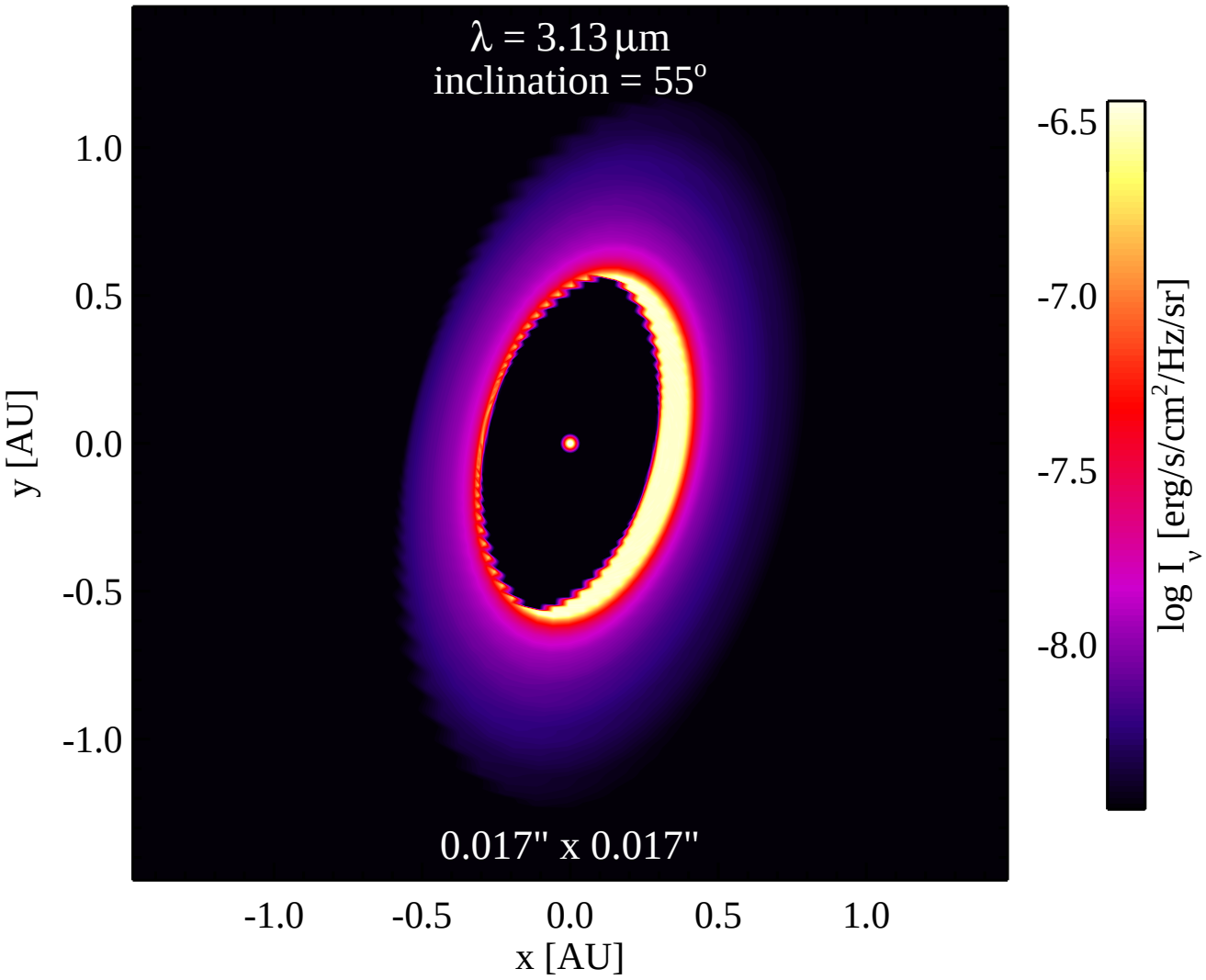

λ = 1.01 μm
inclination = 55°
0.033" x 0.033"
y [AU]
x [AU]
2
1
0
-1
-2
-2
-1
0
1
2
-8.0
-8.5
-9.0
-9.5
-10.0
-10.5
log I_ν [erg/s/cm²/Hz/sr]

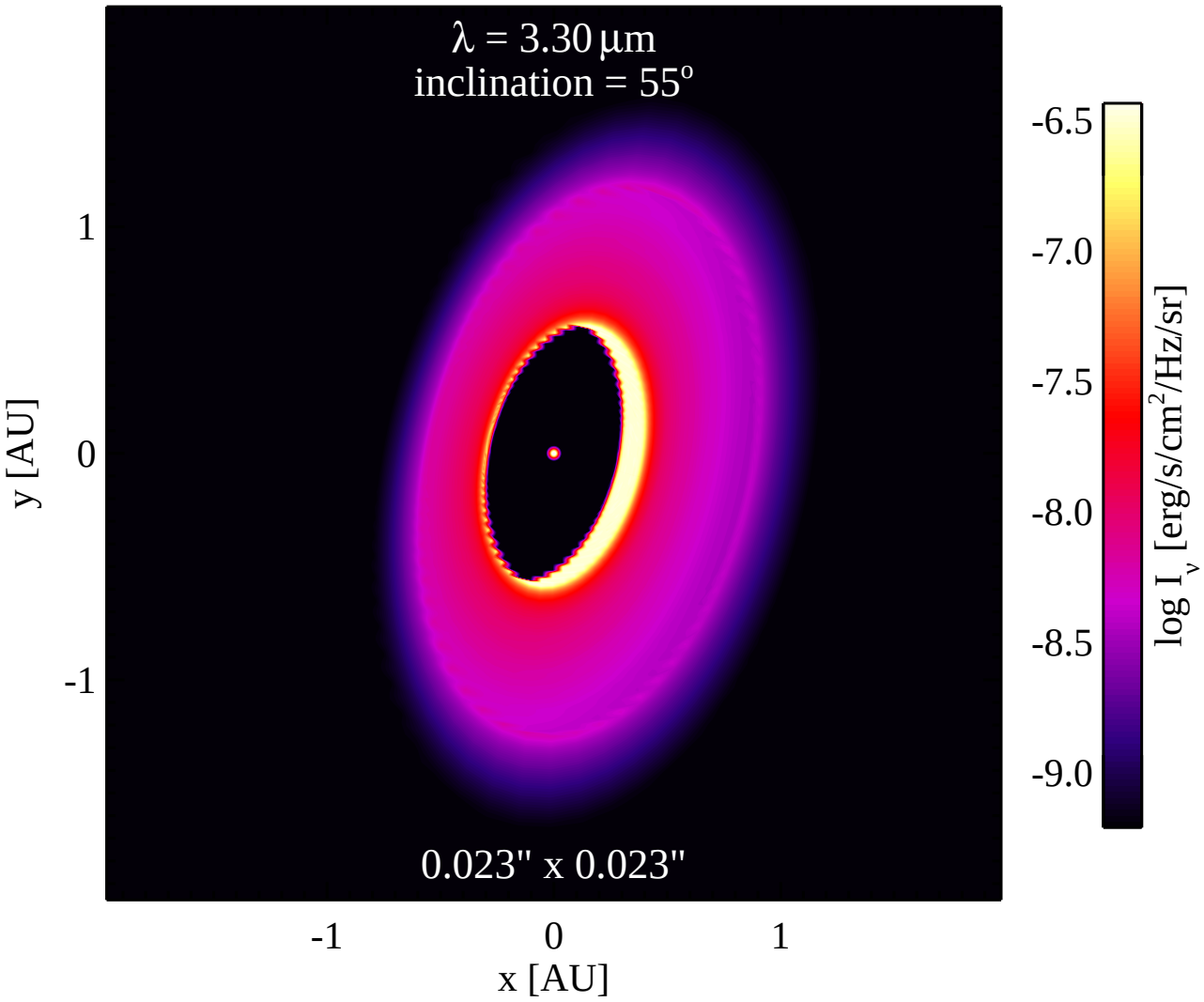

λ = 1.27 μm
inclination = 55°
0.031" x 0.031"
y [AU]
x [AU]
2
1
0
-1
-2
-2
-1
0
1
2
-7.5
-8.0
-8.5
-9.0
-9.5
-10.0
log I_ν [erg/s/cm²/Hz/sr]

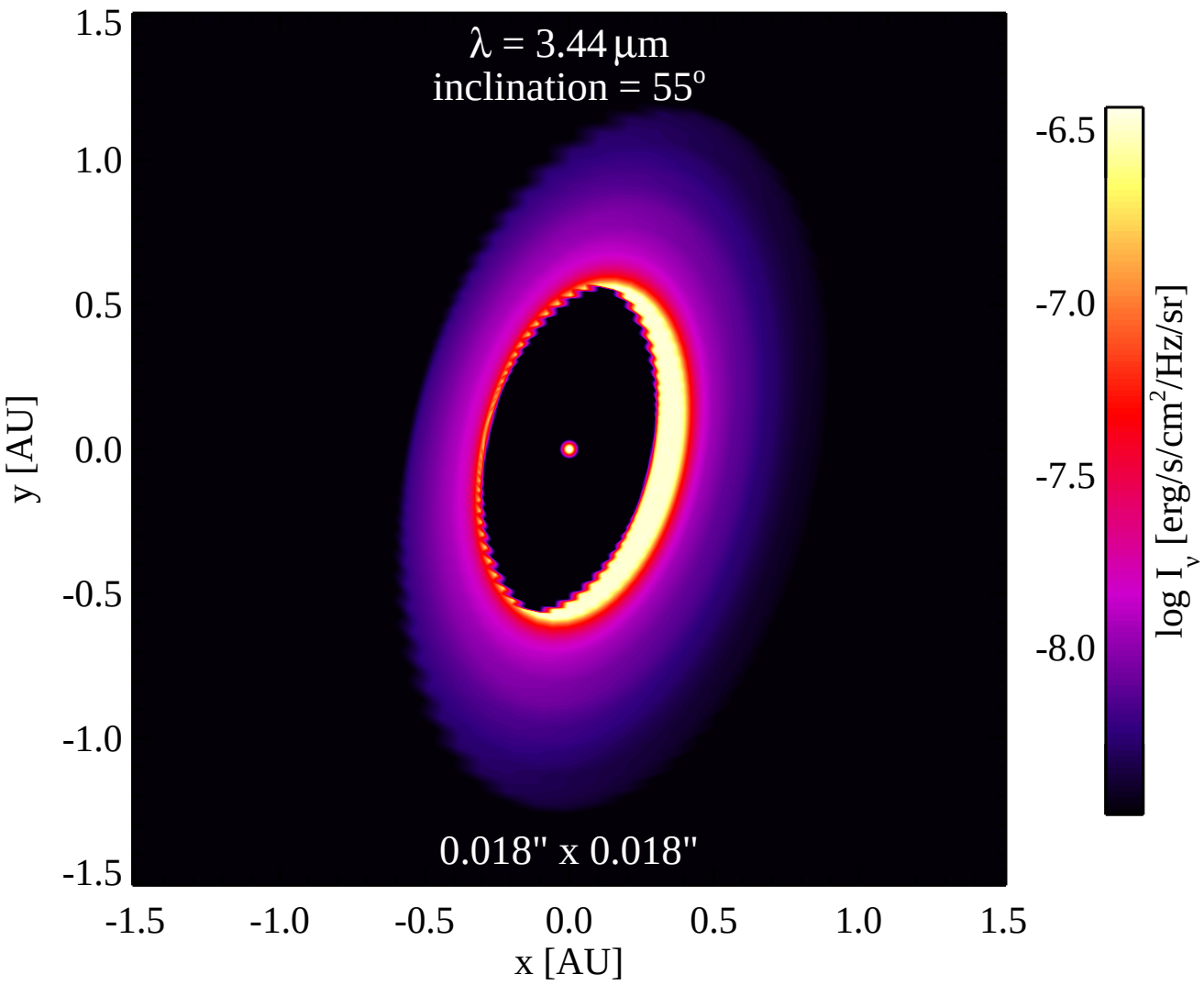

λ = 1.60 μm
inclination = 55°
0.019" x 0.019"
1.5
1.0
0.5
0.0
-0.5
-1.0
-1.5
y [AU]
-1.5
-1.0
-0.5
0.0
0.5
1.0
1.5
x [AU]
-7.0
-7.5
-8.0
-8.5
-9.0
log I_ν [erg/s/cm²/Hz/sr]

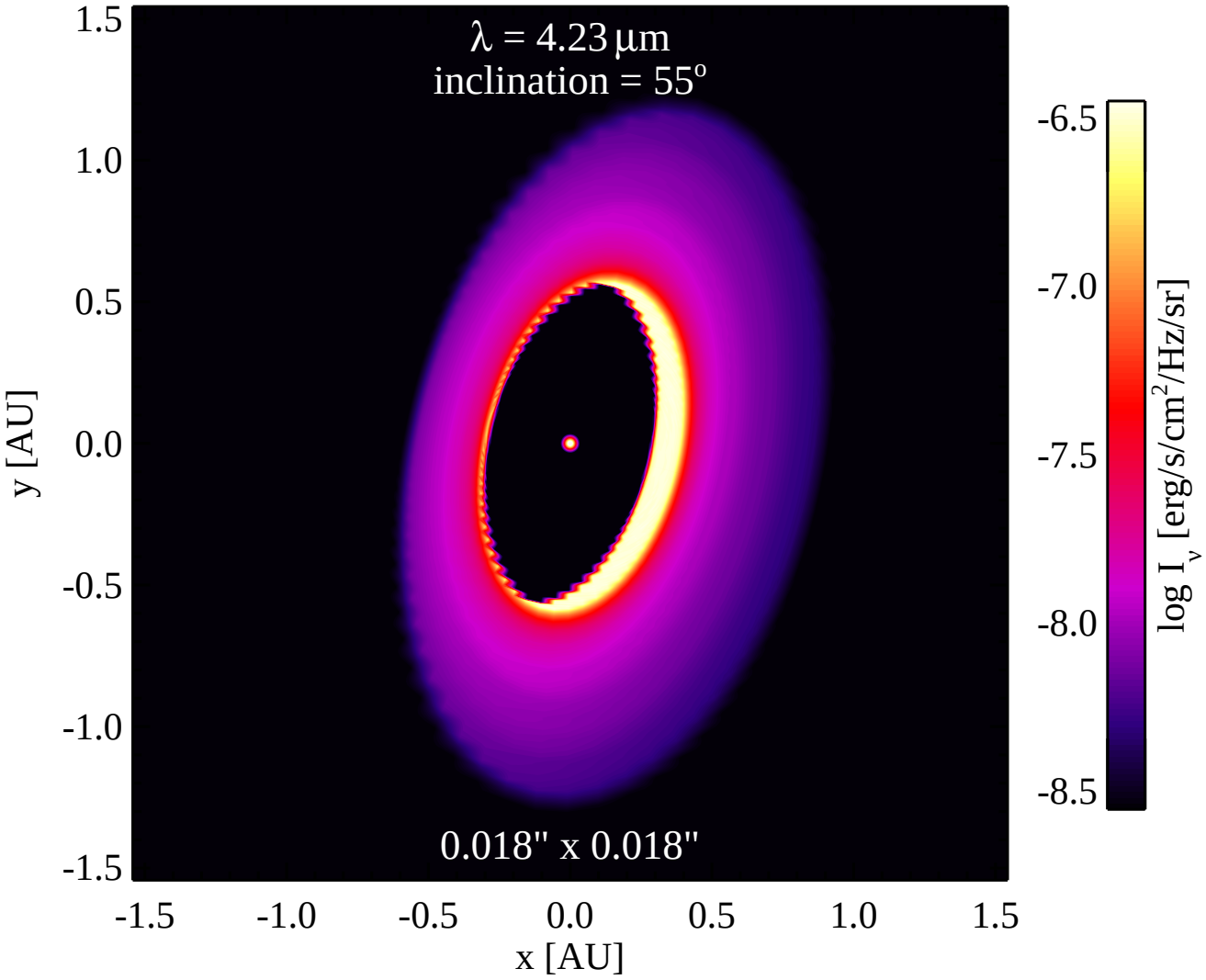

λ = 2.02 μm
inclination = 55°
0.017" x 0.017"
1.0
0.5
0.0
-0.5
-1.0
y [AU]
-1.0
-0.5
0.0
0.5
1.0
x [AU]
-7.0
-7.5
-8.0
-8.5
log I_ν [erg/s/cm²/Hz/sr]

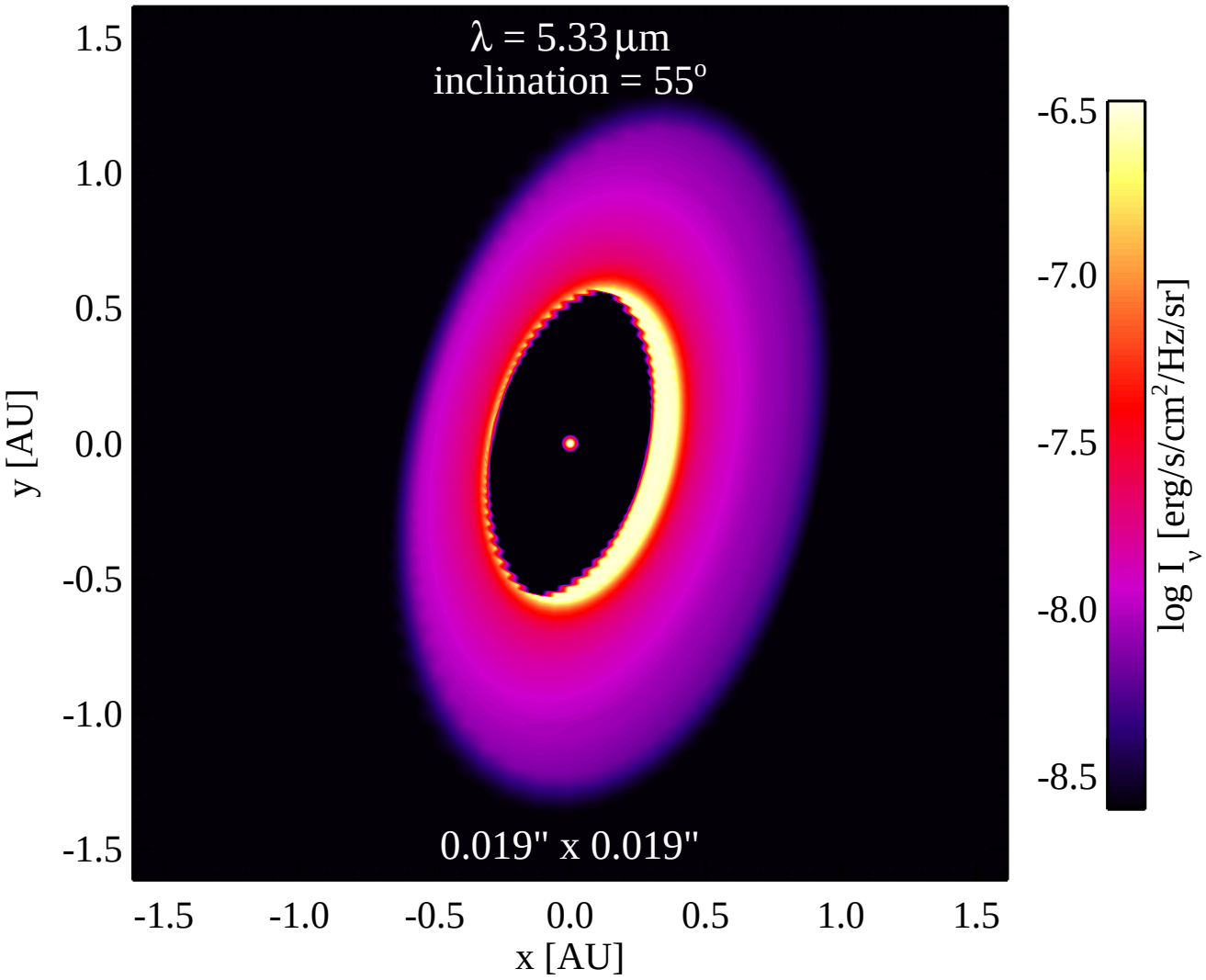

λ = 2.54 μm
inclination = 55°
0.017" x 0.017"
1.0
0.5
0.0
-0.5
-1.0
y [AU]
-1.0
-0.5
0.0
0.5
1.0
x [AU]
-7.0
-7.5
-8.0
-8.5
log I_ν [erg/s/cm²/Hz/sr]

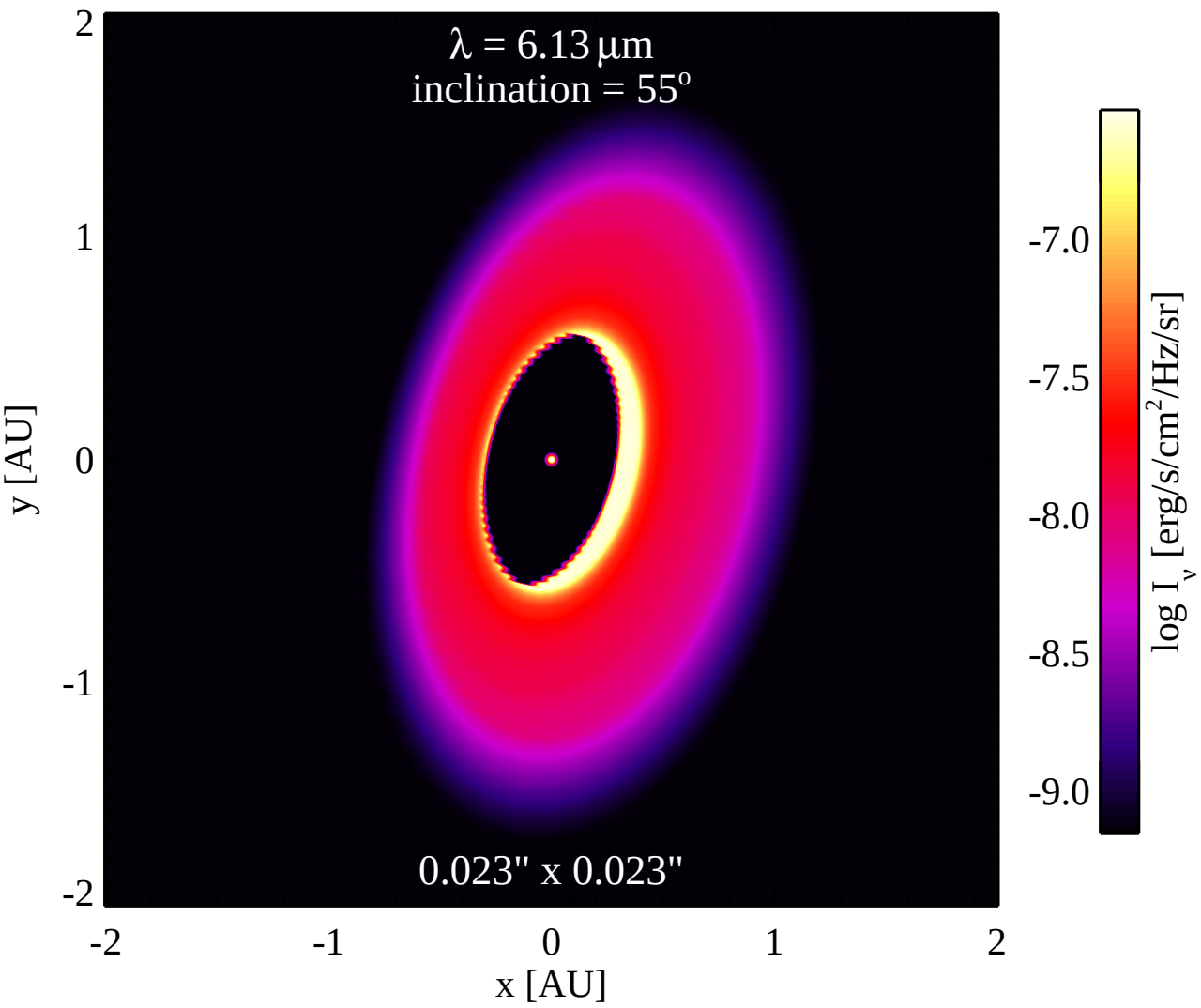

λ = 3.13 μm
inclination = 55°
0.017" x 0.017"
1.0
0.5
0.0
-0.5
-1.0
y [AU]
-1.0
-0.5
0.0
0.5
1.0
x [AU]
-6.5
-7.0
-7.5
-8.0
log I_ν [erg/s/cm²/Hz/sr]

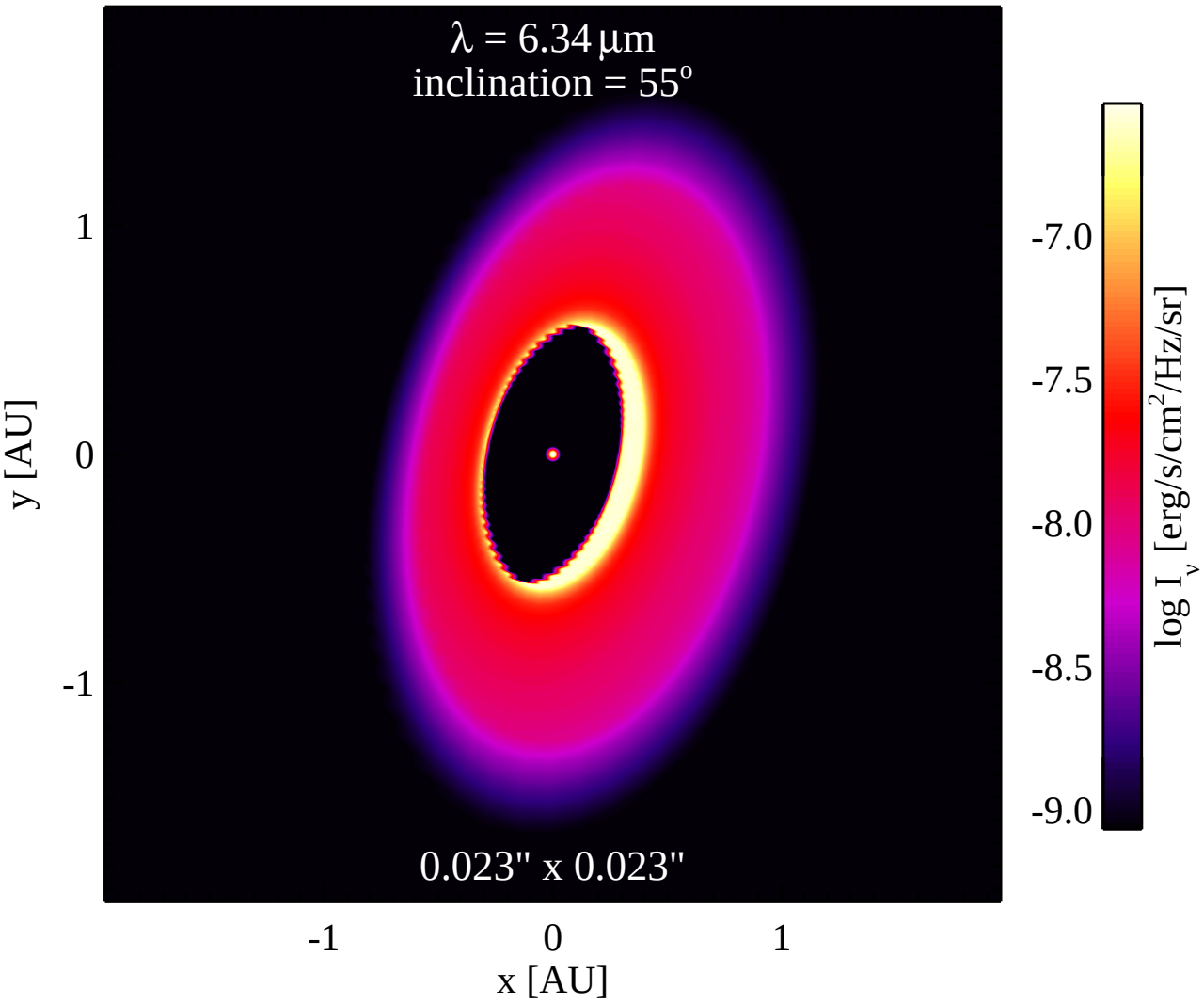

λ = 3.30 μm
inclination = 55°
0.023" x 0.023"
y [AU]
x [AU]
1
0
-1
-1
0
1
-6.5
-7.0
-7.5
-8.0
-8.5
-9.0
log I_ν [erg/s/cm²/Hz/sr]

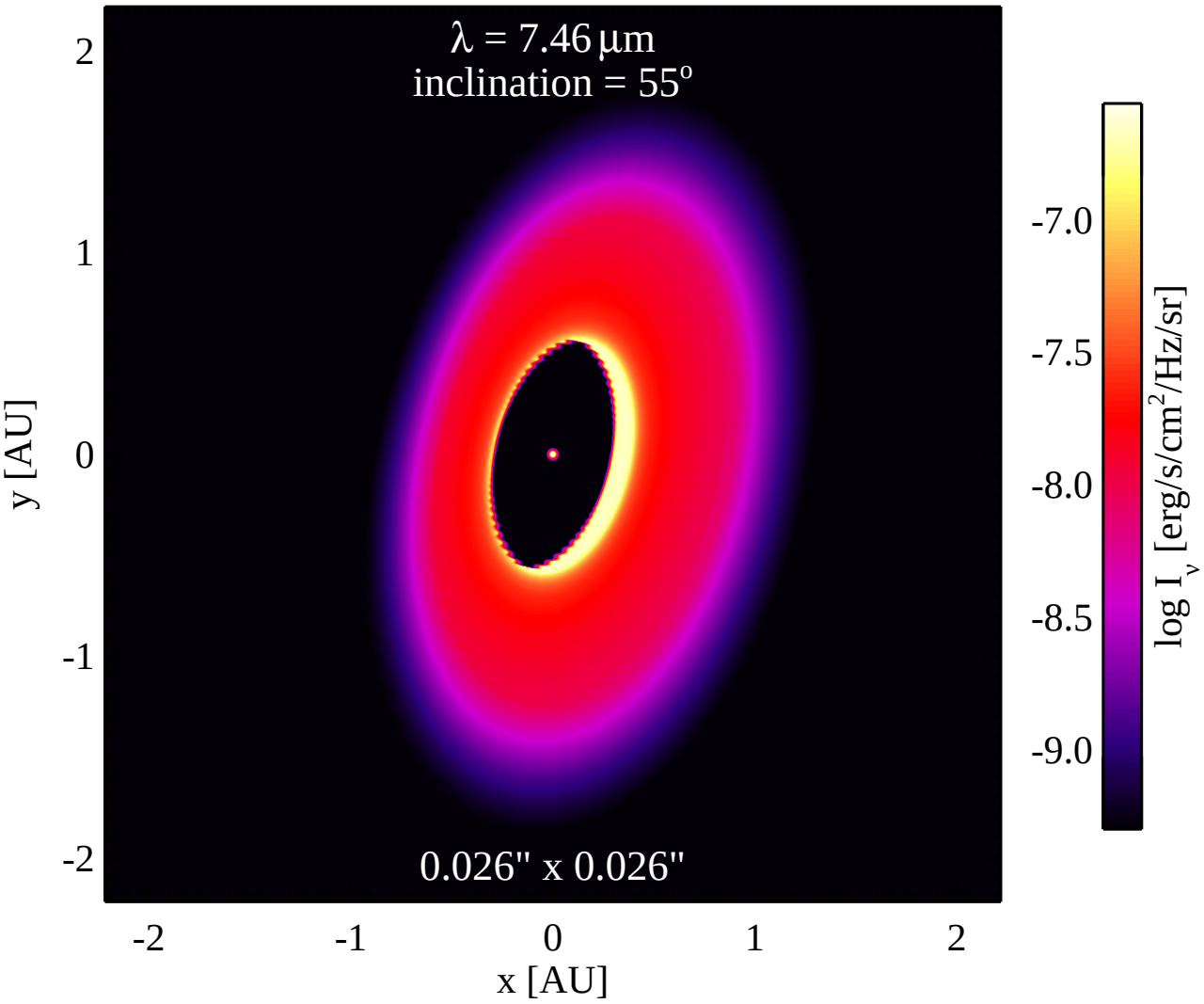

λ = 3.44 μm
inclination = 55°
0.018" x 0.018"
1.5
1.0
0.5
0.0
-0.5
-1.0
-1.5
y [AU]
-1.5
-1.0
-0.5
0.0
0.5
1.0
1.5
x [AU]
-6.5
-7.0
-7.5
-8.0
log I_ν [erg/s/cm²/Hz/sr]

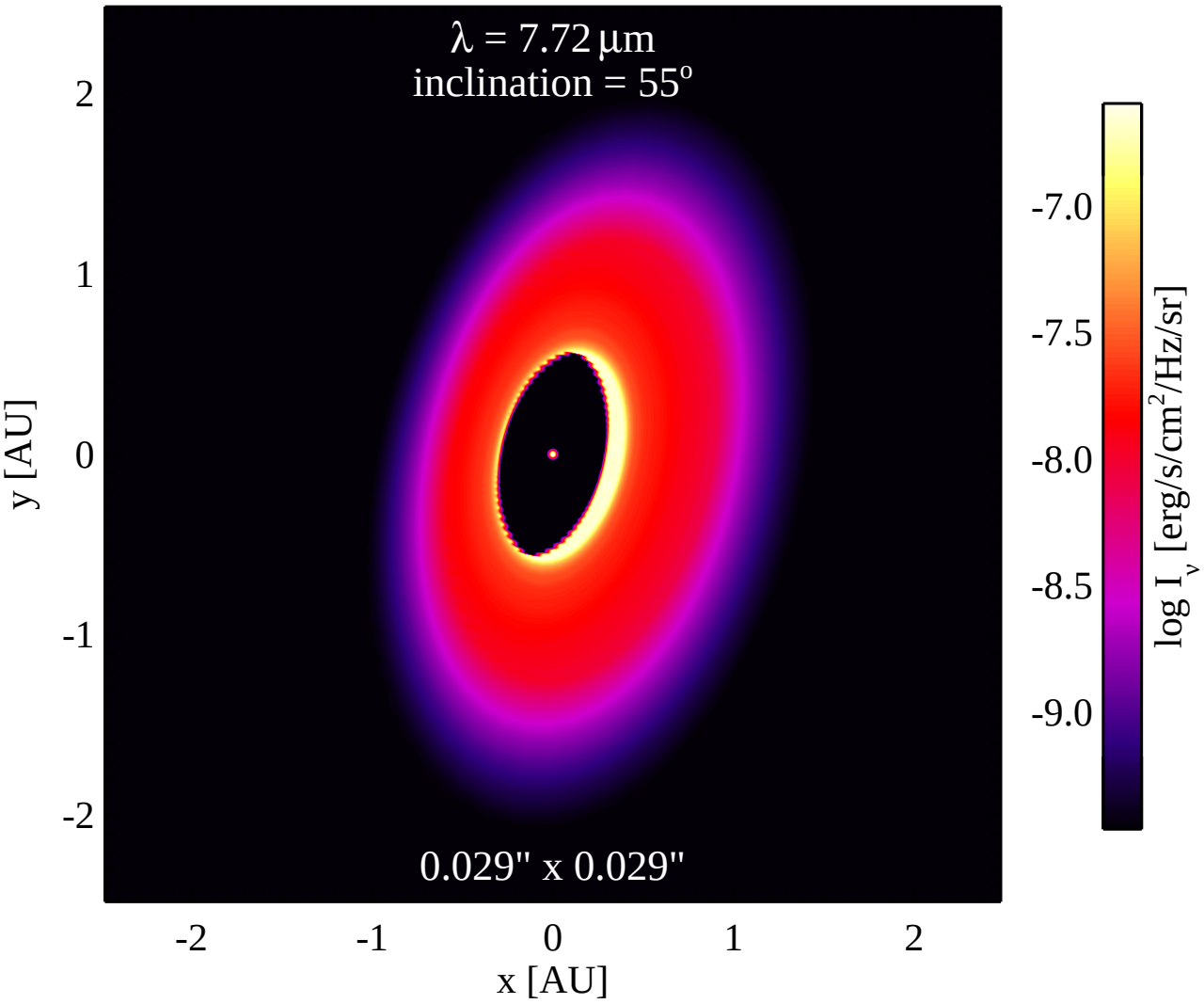

λ = 4.23 μm
inclination = 55°
0.018" x 0.018"
1.5
1.0
0.5
0.0
-0.5
-1.0
-1.5
y [AU]
-1.5
-1.0
-0.5
0.0
0.5
1.0
1.5
x [AU]
-6.5
-7.0
-7.5
-8.0
-8.5
log I_ν [erg/s/cm²/Hz/sr]

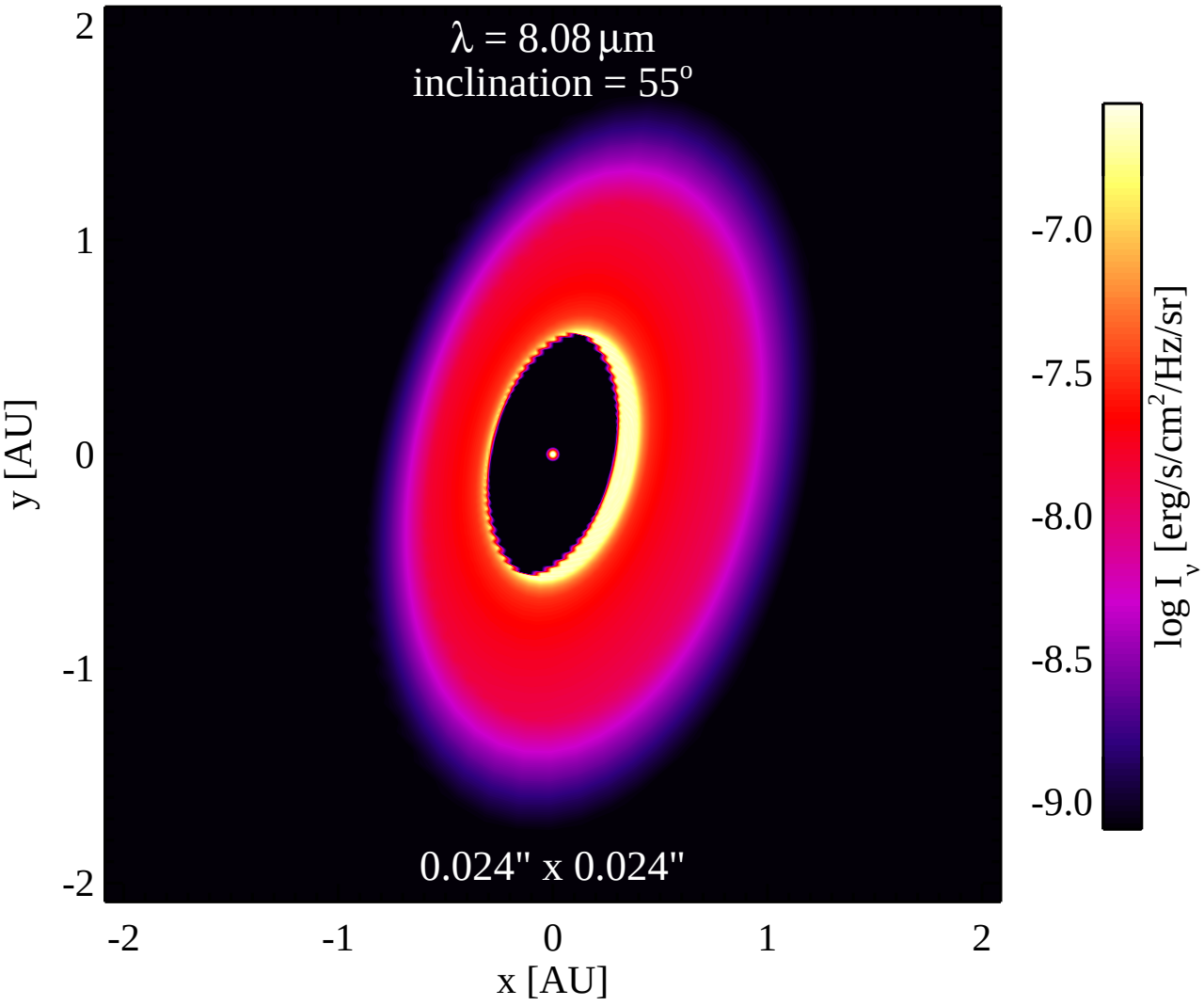

λ = 5.33 μm
inclination = 55°
0.019" x 0.019"
1.5
1.0
0.5
0.0
-0.5
-1.0
-1.5
y [AU]
-1.5
-1.0
-0.5
0.0
0.5
1.0
1.5
x [AU]
-6.5
-7.0
-7.5
-8.0
-8.5
log I_ν [erg/s/cm²/Hz/sr]

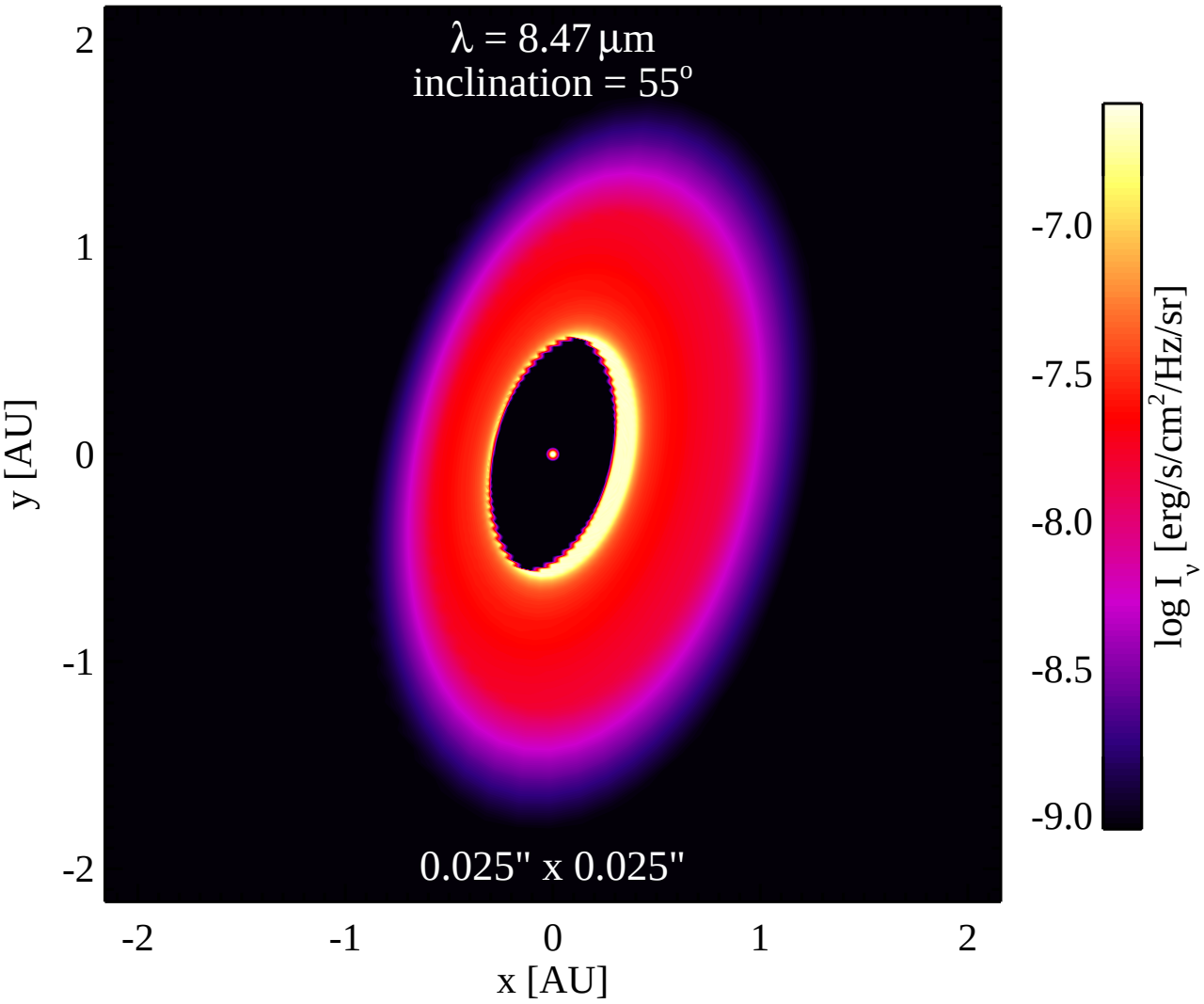

λ = 6.13 μm
inclination = 55°
0.023" x 0.023"
2
1
0
-1
-2
y [AU]
-2
-1
0
1
2
x [AU]
-7.0
-7.5
-8.0
-8.5
-9.0
log I_ν [erg/s/cm²/Hz/sr]

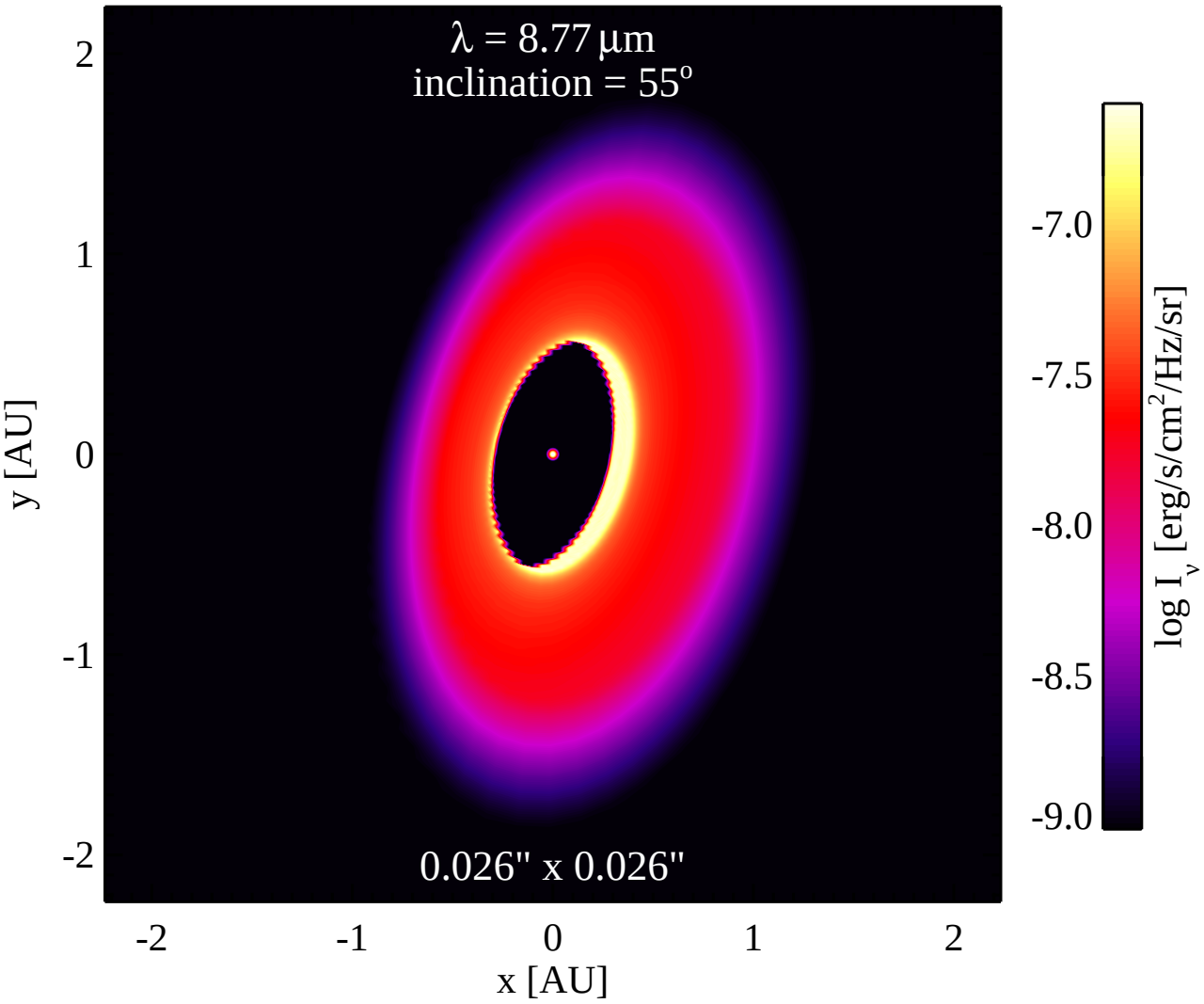

λ = 6.34 μm
inclination = 55°
0.023" x 0.023"
1
0
-1
y [AU]
-1
0
1
x [AU]
-7.0
-7.5
-8.0
-8.5
-9.0
log I_ν [erg/s/cm²/Hz/sr]

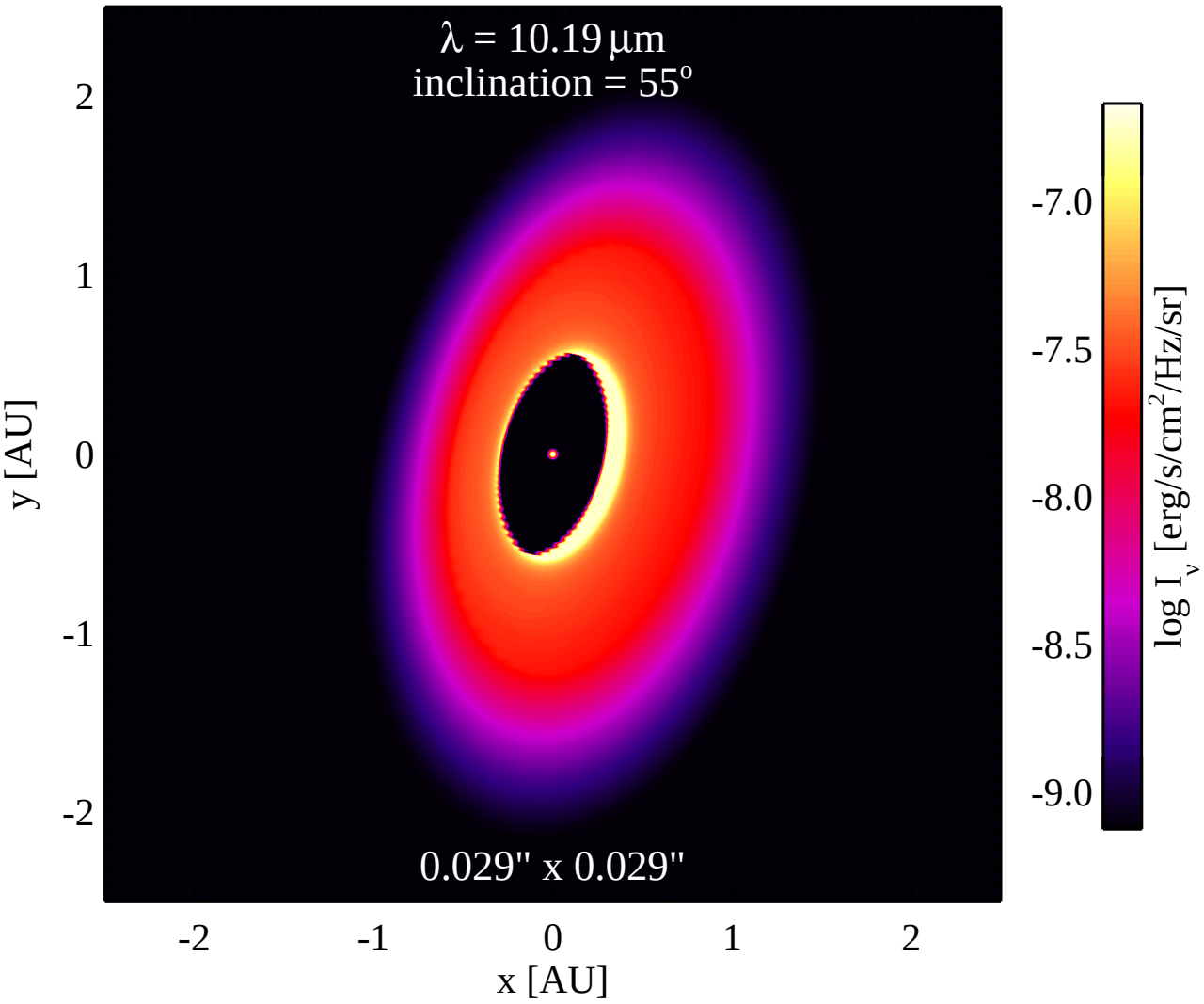

λ = 7.46 μm
inclination = 55°
0.026" x 0.026"
y [AU]
x [AU]
2
1
0
-1
-2
-2
-1
0
1
2
-7.0
-7.5
-8.0
-8.5
-9.0
log I_ν [erg/s/cm²/Hz/sr]

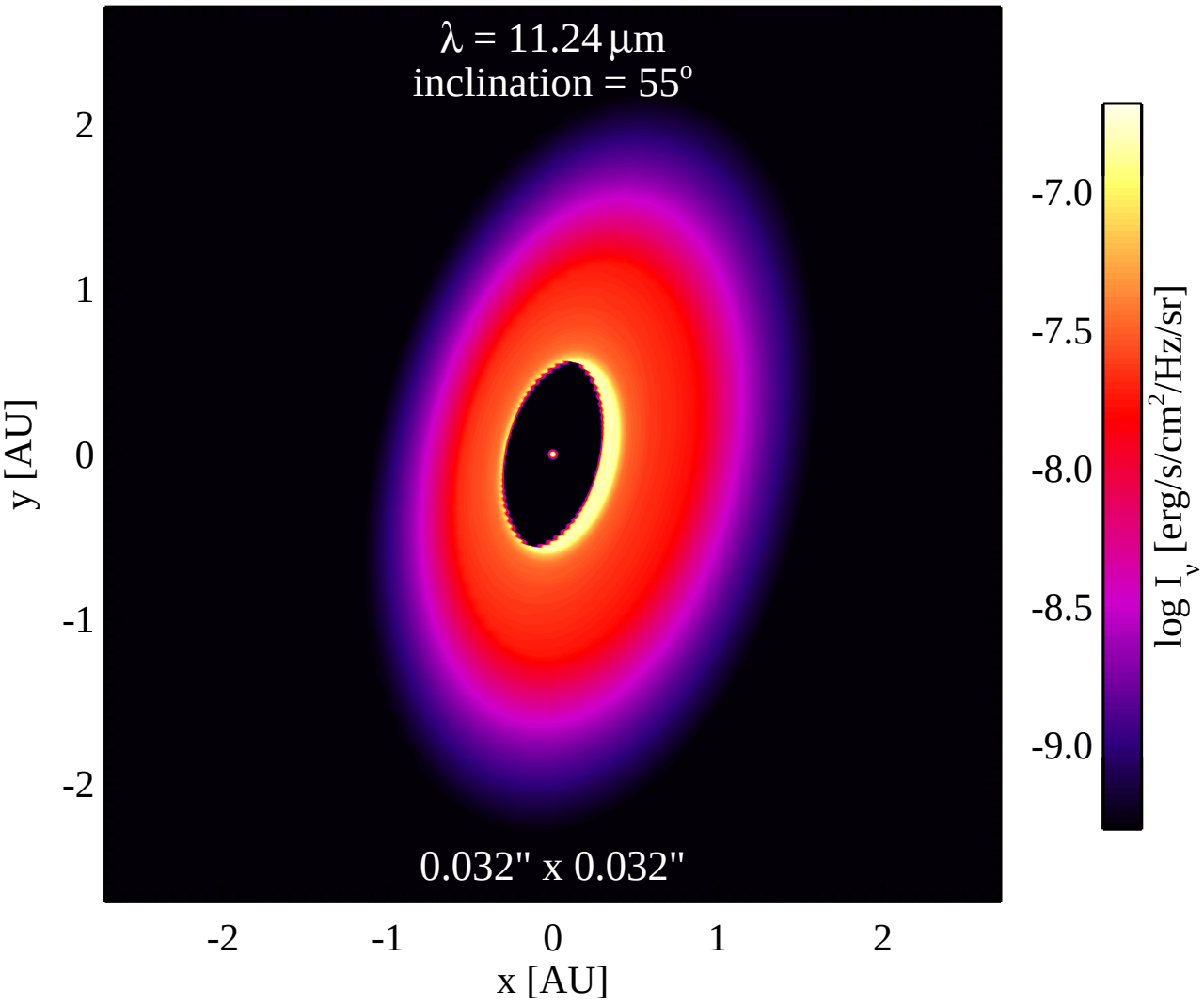

λ = 7.72 μm
inclination = 55°
0.029" x 0.029"
y [AU]
x [AU]
2
1
0
-1
-2
-2
-1
0
1
2
-7.0
-7.5
-8.0
-8.5
-9.0
log I_ν [erg/s/cm²/Hz/sr]

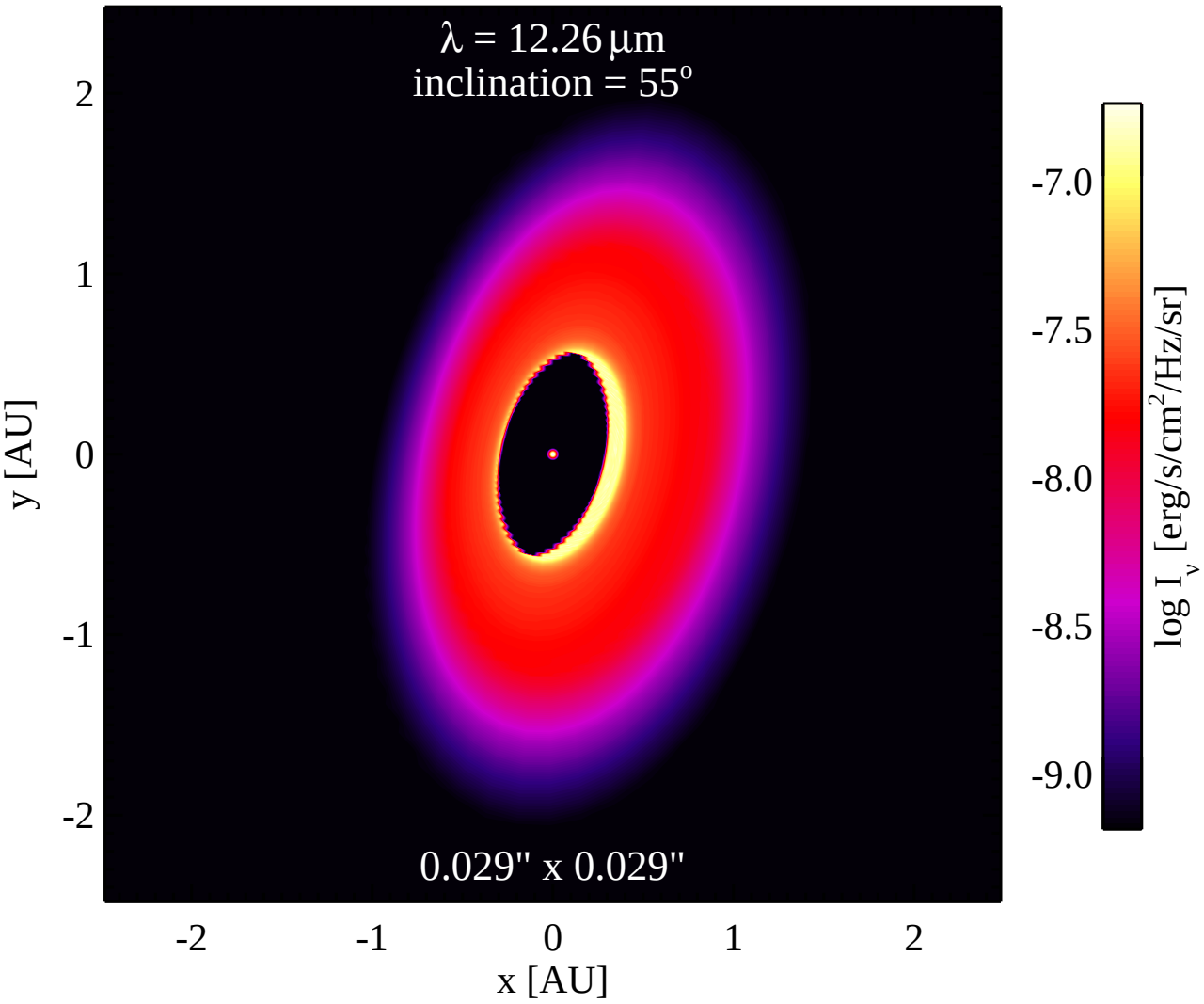

λ = 8.08 μm
inclination = 55°
0.024" x 0.024"
2
1
0
-1
-2
y [AU]
-2
-1
0
1
2
x [AU]
-7.0
-7.5
-8.0
-8.5
-9.0
log I_ν [erg/s/cm²/Hz/sr]

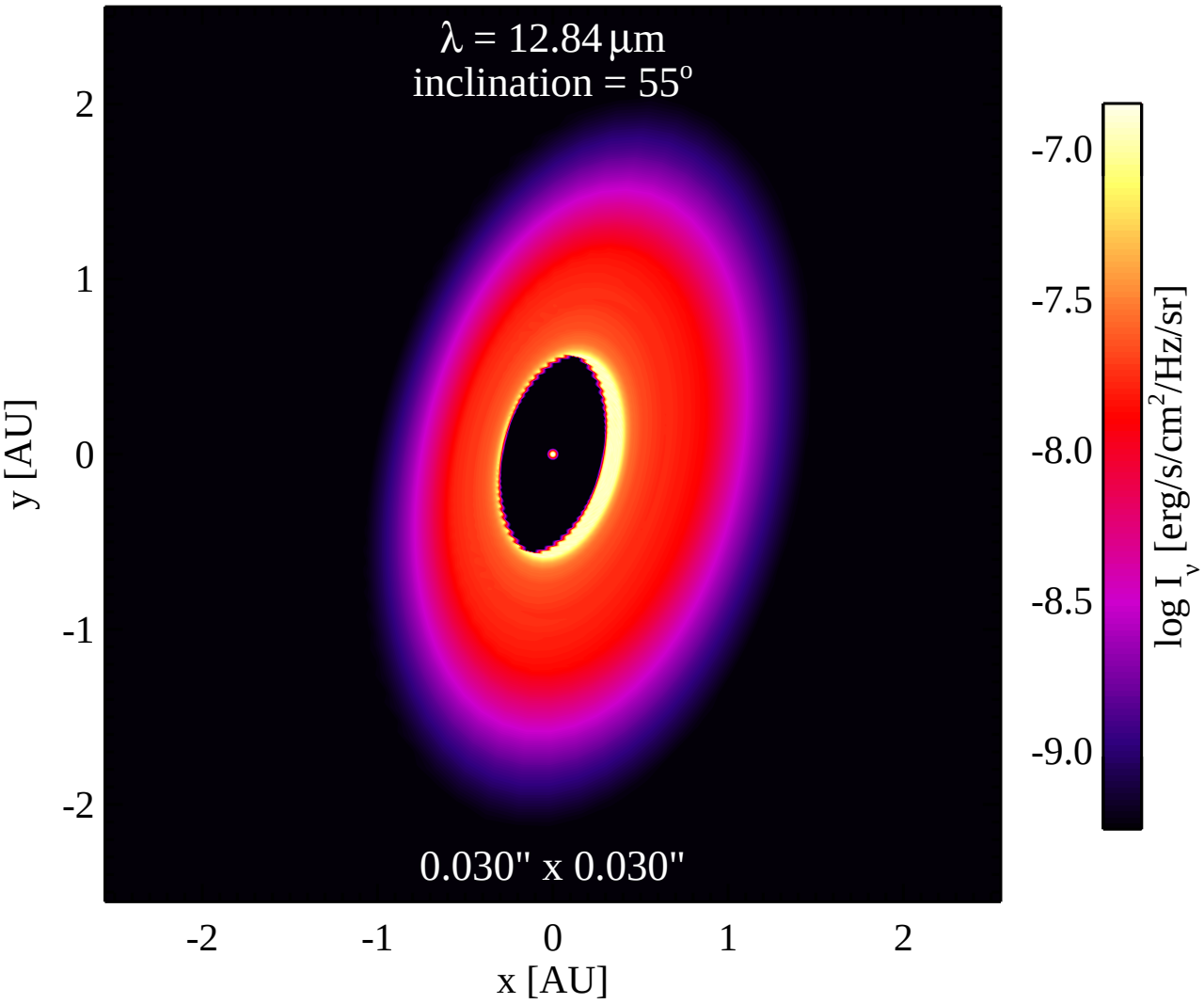

λ = 8.47 μm
inclination = 55°
0.025" x 0.025"
2
1
0
-1
-2
y [AU]
-2
-1
0
1
2
x [AU]
-7.0
-7.5
-8.0
-8.5
-9.0
log I_ν [erg/s/cm²/Hz/sr]

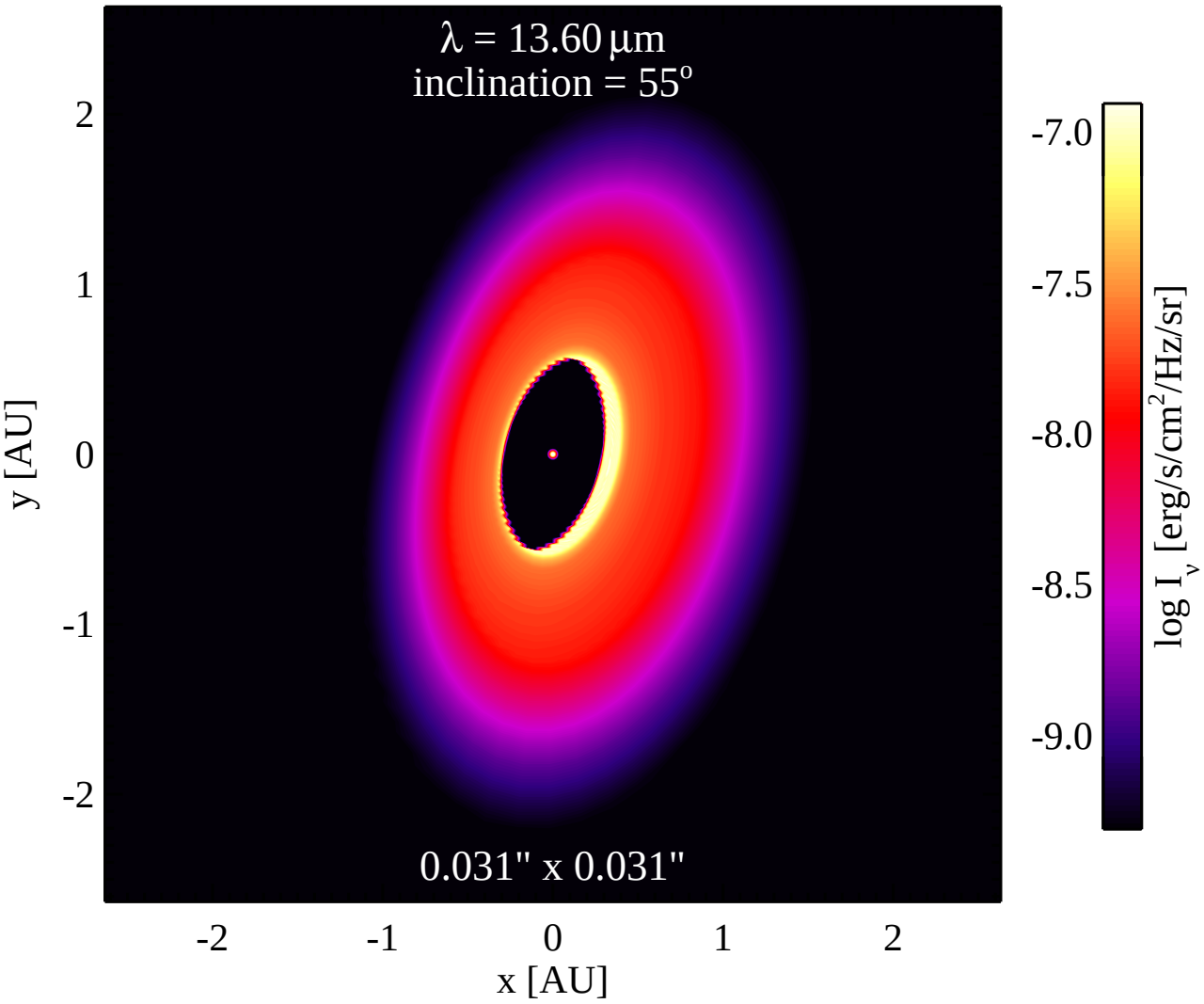

λ = 8.77 μm
inclination = 55°
0.026" x 0.026"
2
1
0
-1
-2
y [AU]
-2
-1
0
1
2
x [AU]
-7.0
-7.5
-8.0
-8.5
-9.0
log I_ν [erg/s/cm²/Hz/sr]

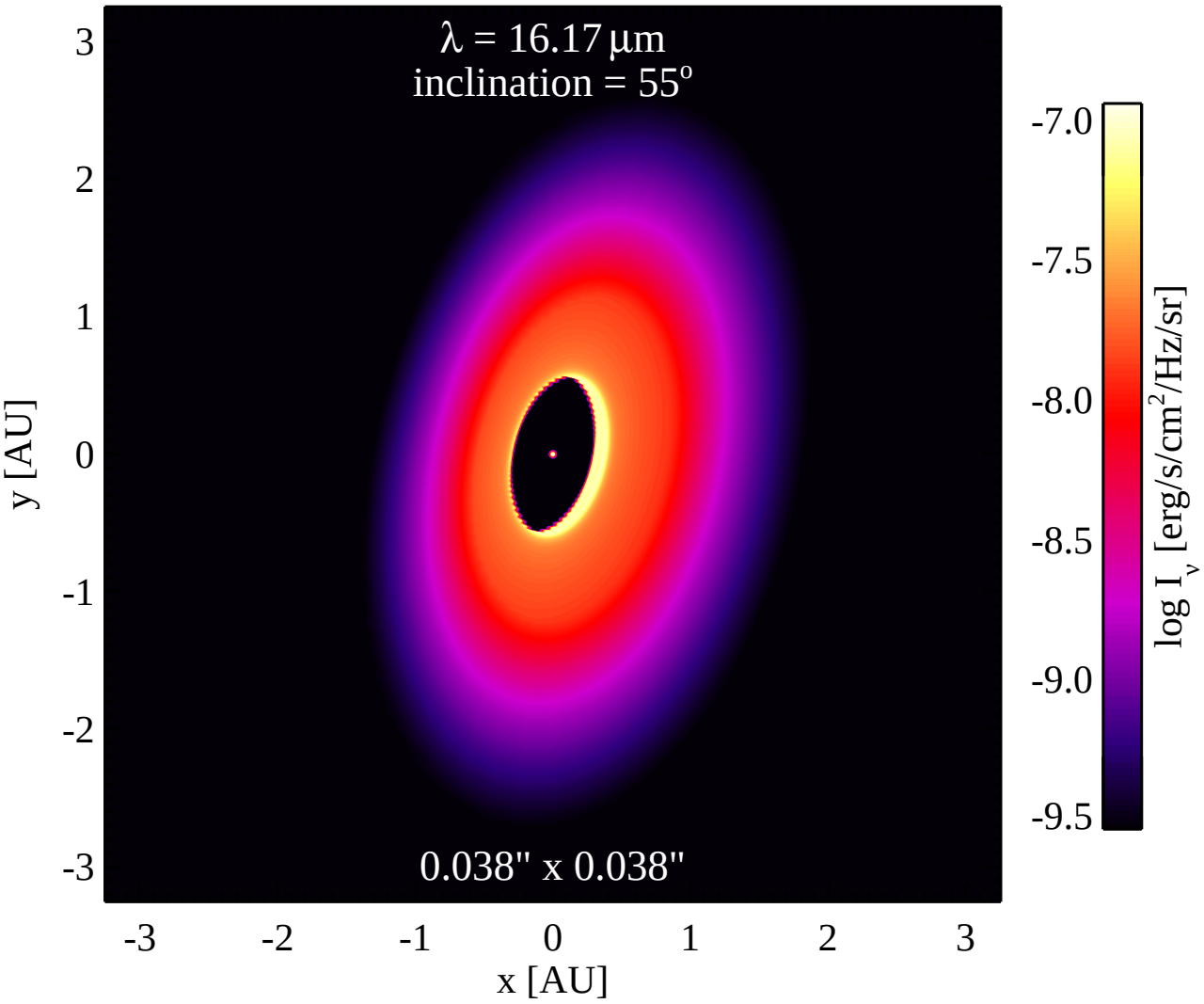

λ = 10.19 μm
inclination = 55°
0.029" x 0.029"
y [AU]
x [AU]
2
1
0
-1
-2
-2
-1
0
1
2
-7.0
-7.5
-8.0
-8.5
-9.0
log I_ν [erg/s/cm²/Hz/sr]

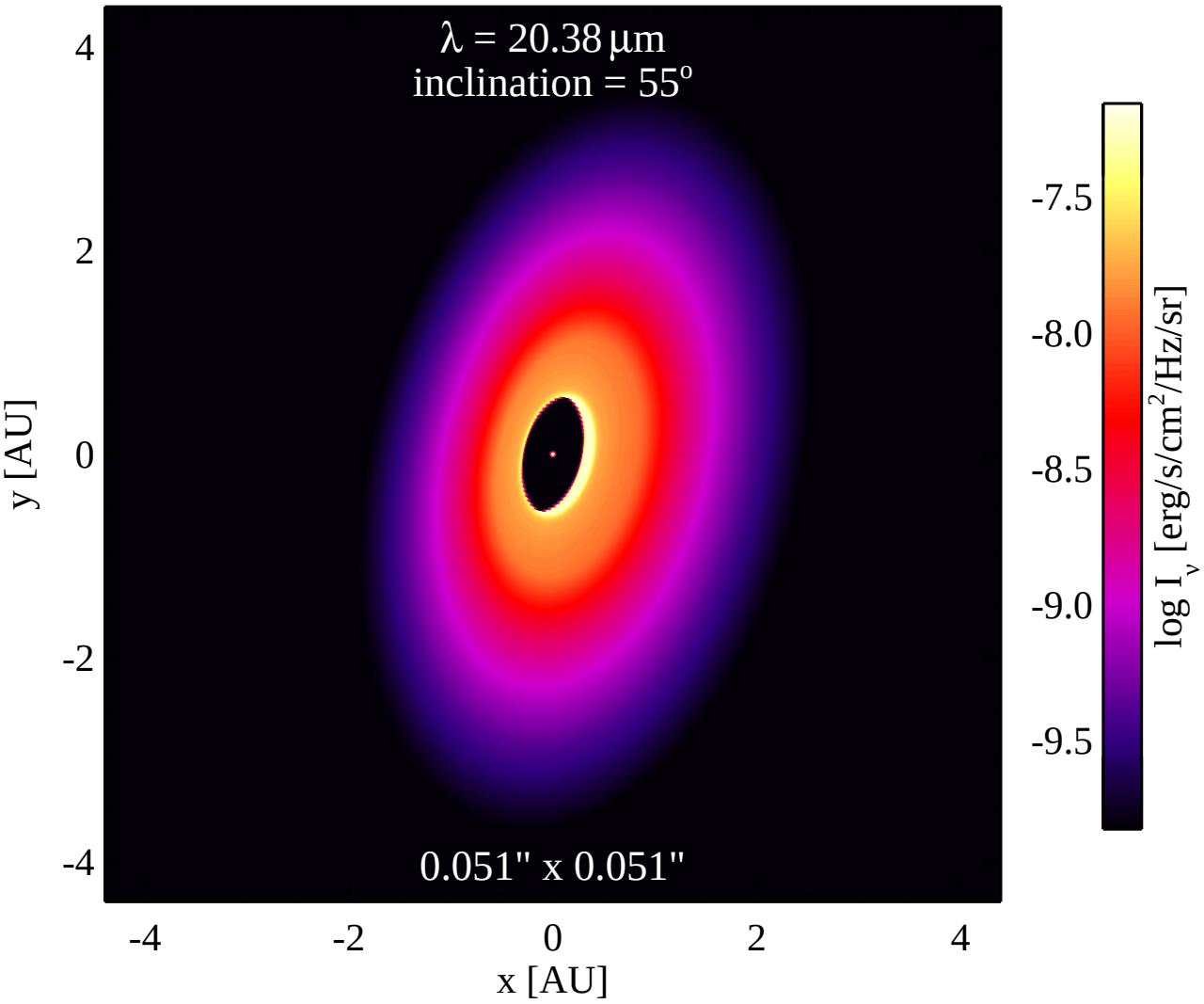

λ = 11.24 μm
inclination = 55°
0.032" x 0.032"
y [AU]
x [AU]
2
1
0
-1
-2
-2
-1
0
1
2
-7.0
-7.5
-8.0
-8.5
-9.0
log I_ν [erg/s/cm²/Hz/sr]

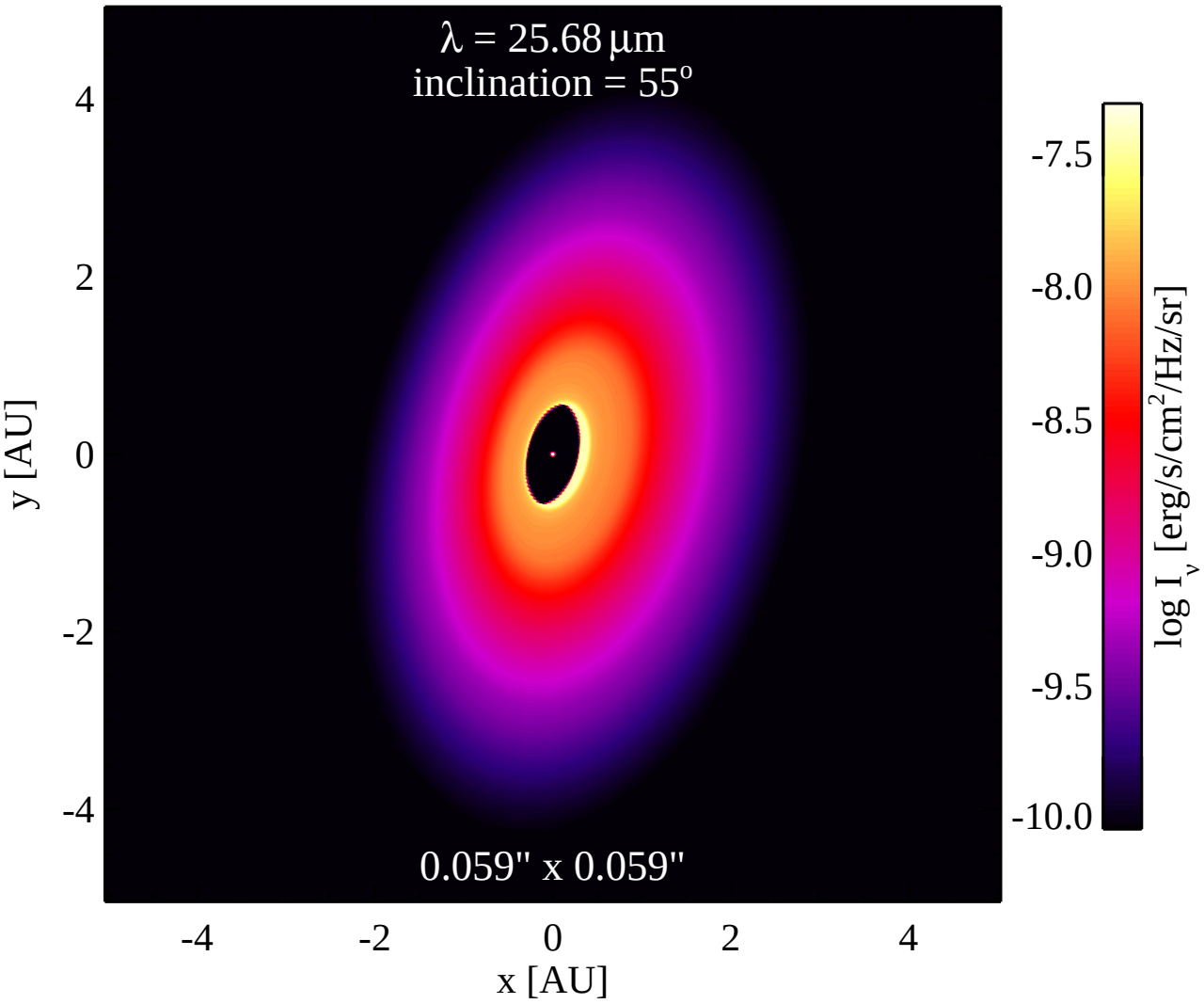

λ = 12.26 μm
inclination = 55°
0.029" x 0.029"
y [AU]
x [AU]
2
1
0
-1
-2
-2
-1
0
1
2
-7.0
-7.5
-8.0
-8.5
-9.0
log I_ν [erg/s/cm²/Hz/sr]

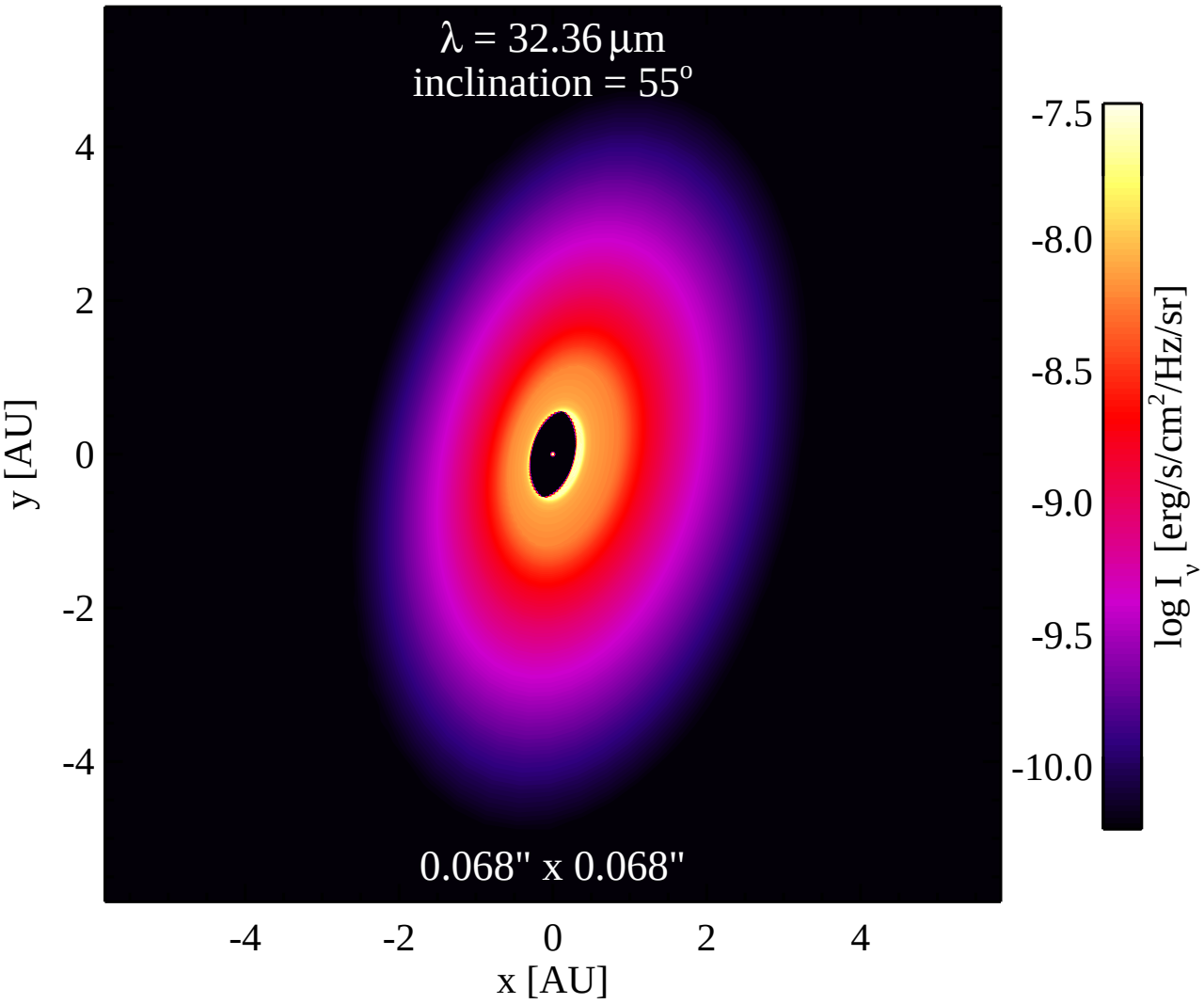

λ = 12.84 μm
inclination = 55°
0.030" x 0.030"
2
1
0
-1
-2
y [AU]
-2
-1
0
1
2
x [AU]
-7.0
-7.5
-8.0
-8.5
-9.0
log I_ν [erg/s/cm²/Hz/sr]

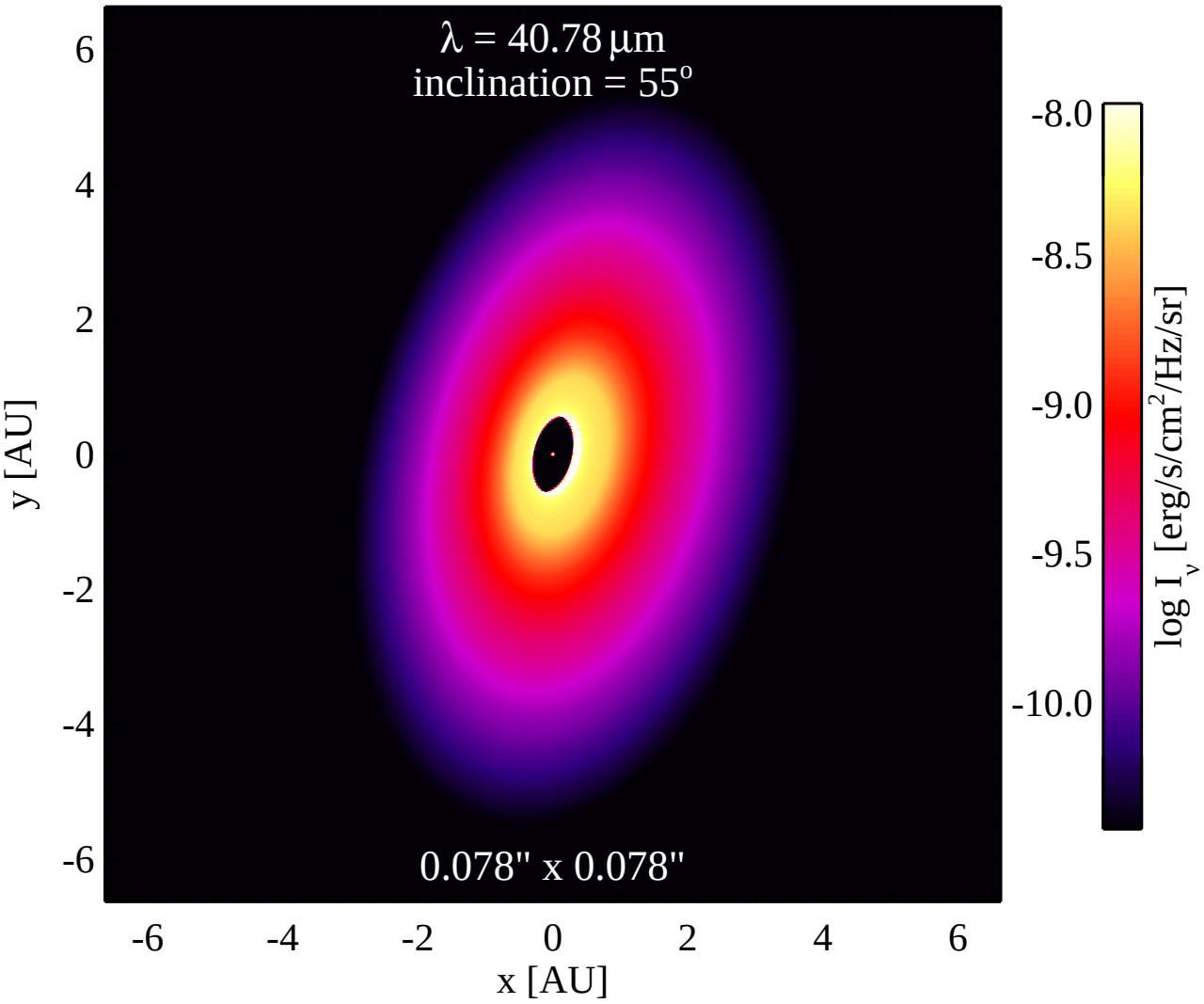

λ = 13.60 μm
inclination = 55°
0.031" x 0.031"
2
1
0
-1
-2
y [AU]
-2
-1
0
1
2
x [AU]
-7.0
-7.5
-8.0
-8.5
-9.0
log I_ν [erg/s/cm²/Hz/sr]

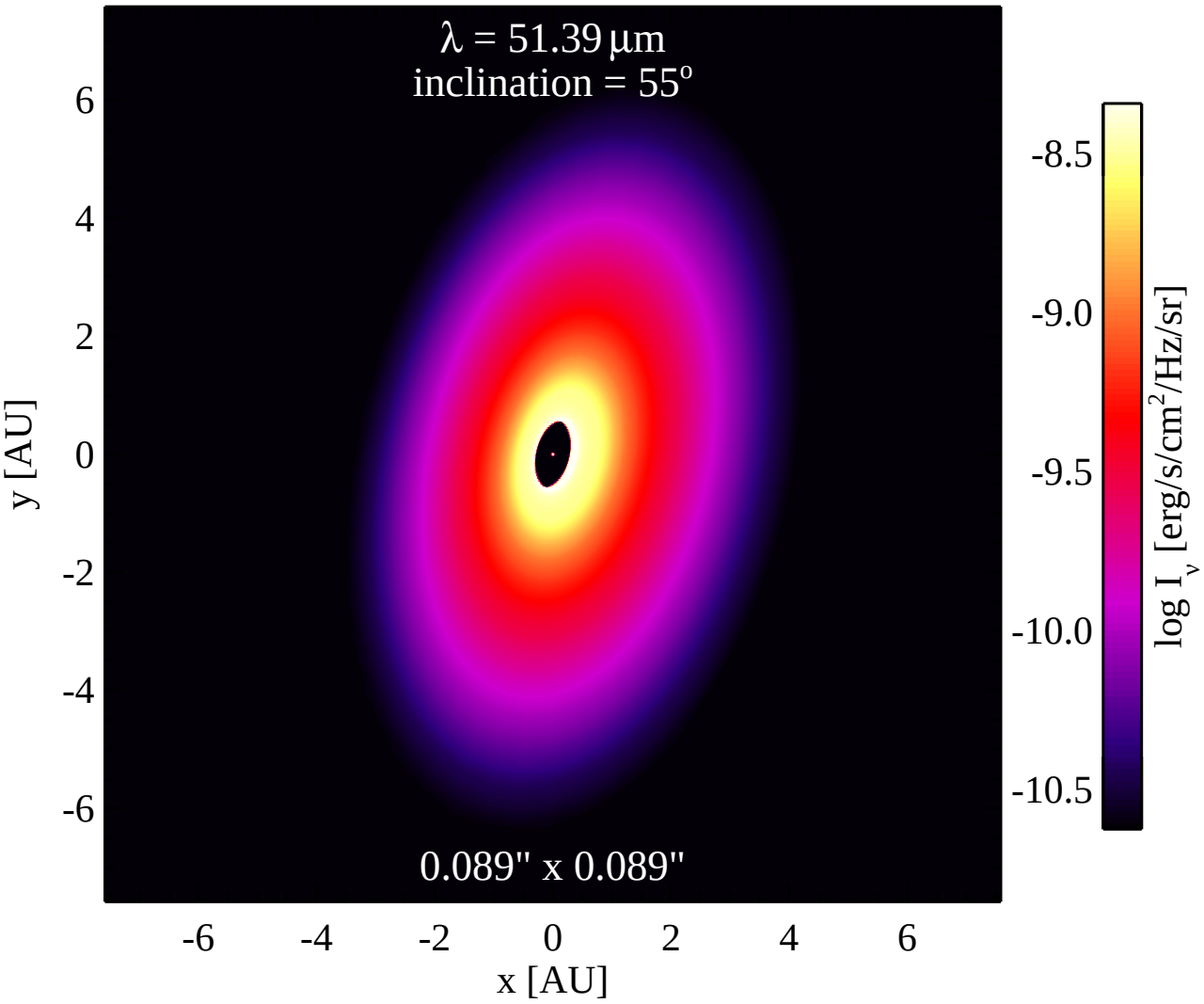

λ = 16.17 μm
inclination = 55°
0.038" x 0.038"
y [AU]
x [AU]
3
2
1
0
-1
-2
-3
-3
-2
-1
0
1
2
3
-7.0
-7.5
-8.0
-8.5
-9.0
-9.5
log I_ν [erg/s/cm²/Hz/sr]

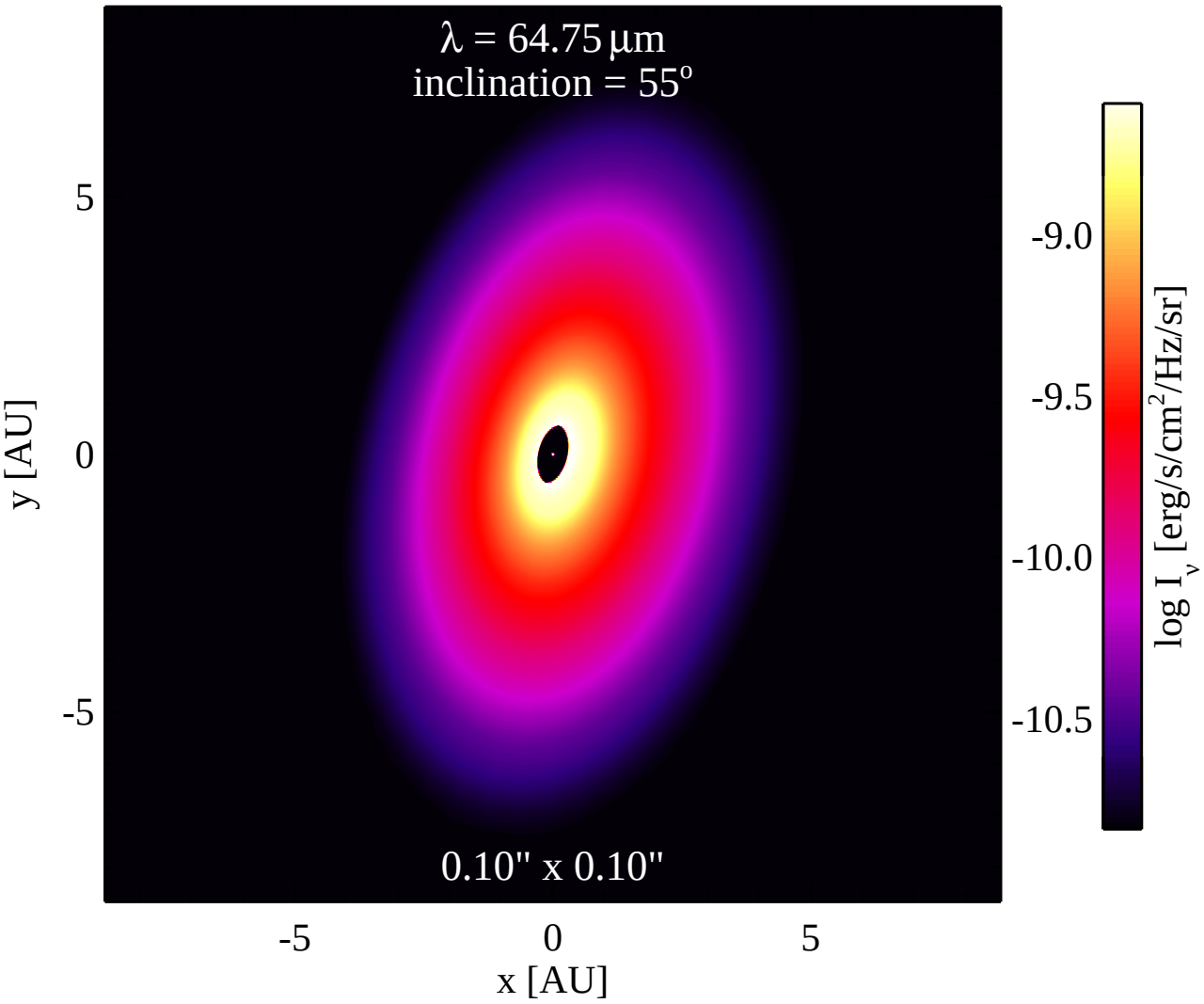

λ = 20.38 μm
inclination = 55°
0.051" x 0.051"
4
2
0
-2
-4
y [AU]
-4
-2
0
2
4
x [AU]
-7.5
-8.0
-8.5
-9.0
-9.5
log I_ν [erg/s/cm²/Hz/sr]

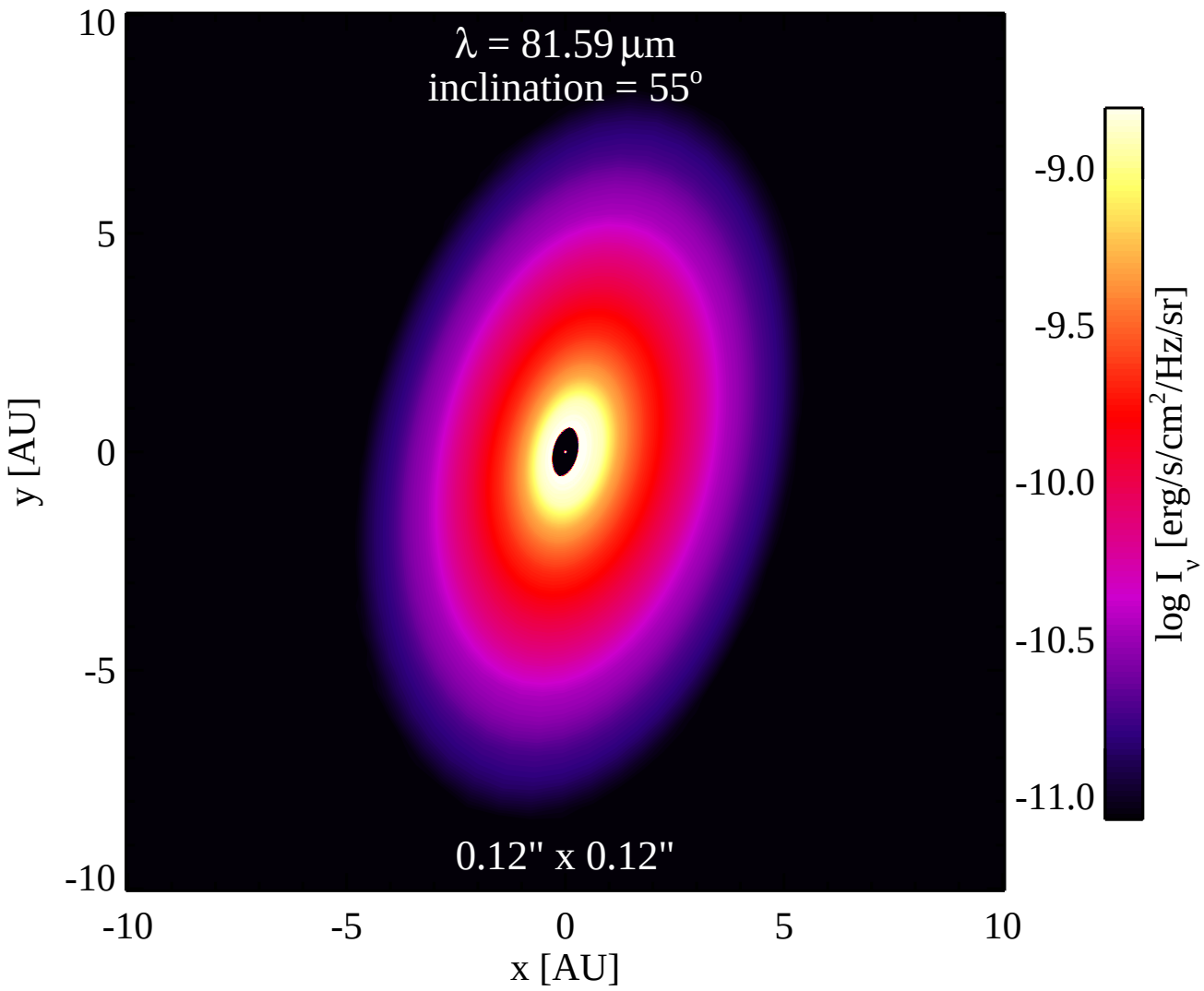

λ = 25.68 μm
inclination = 55°
0.059" x 0.059"
y [AU]
x [AU]
4
2
0
-2
-4
-4
-2
0
2
4
-7.5
-8.0
-8.5
-9.0
-9.5
-10.0
log I_ν [erg/s/cm²/Hz/sr]

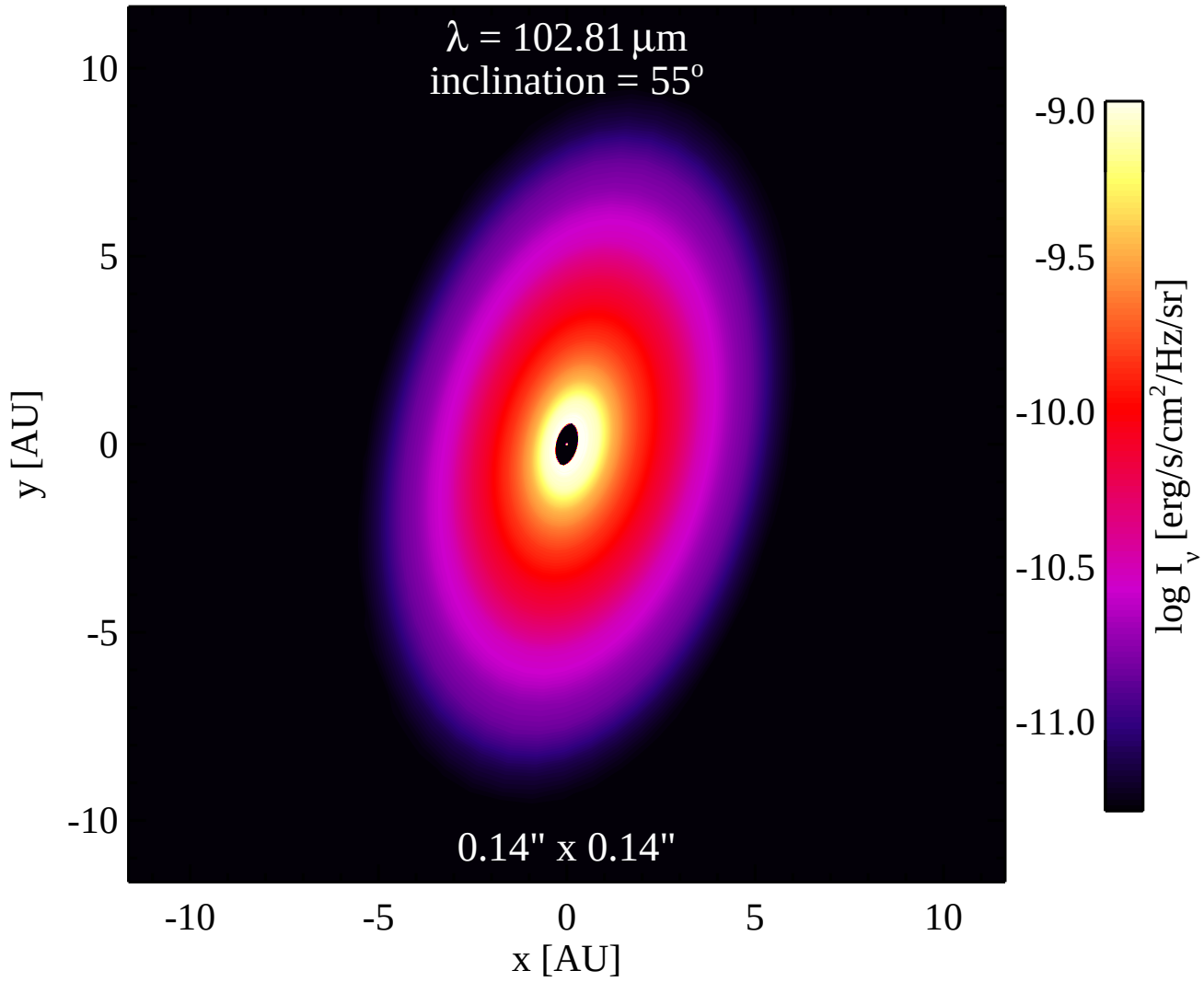

λ = 32.36 μm
inclination = 55°
0.068" x 0.068"
y [AU]
x [AU]
4
2
0
-2
-4
-4
-2
0
2
4
-7.5
-8.0
-8.5
-9.0
-9.5
-10.0
log I_ν [erg/s/cm²/Hz/sr]

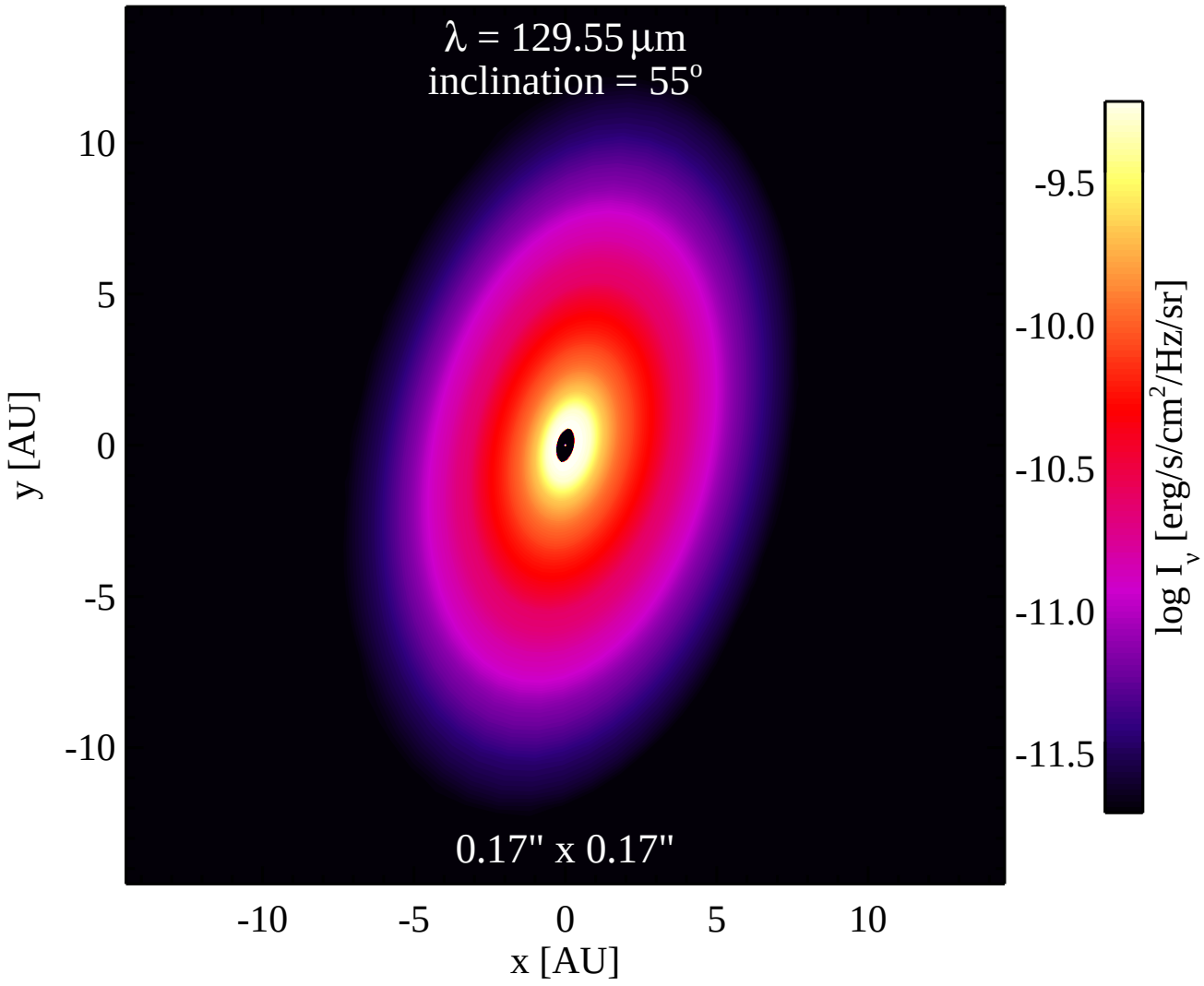

λ = 40.78 μm
inclination = 55°
0.078" x 0.078"
y [AU]
x [AU]
6
4
2
0
-2
-4
-6
-8.0
-8.5
-9.0
-9.5
-10.0
log I_ν [erg/s/cm²/Hz/sr]

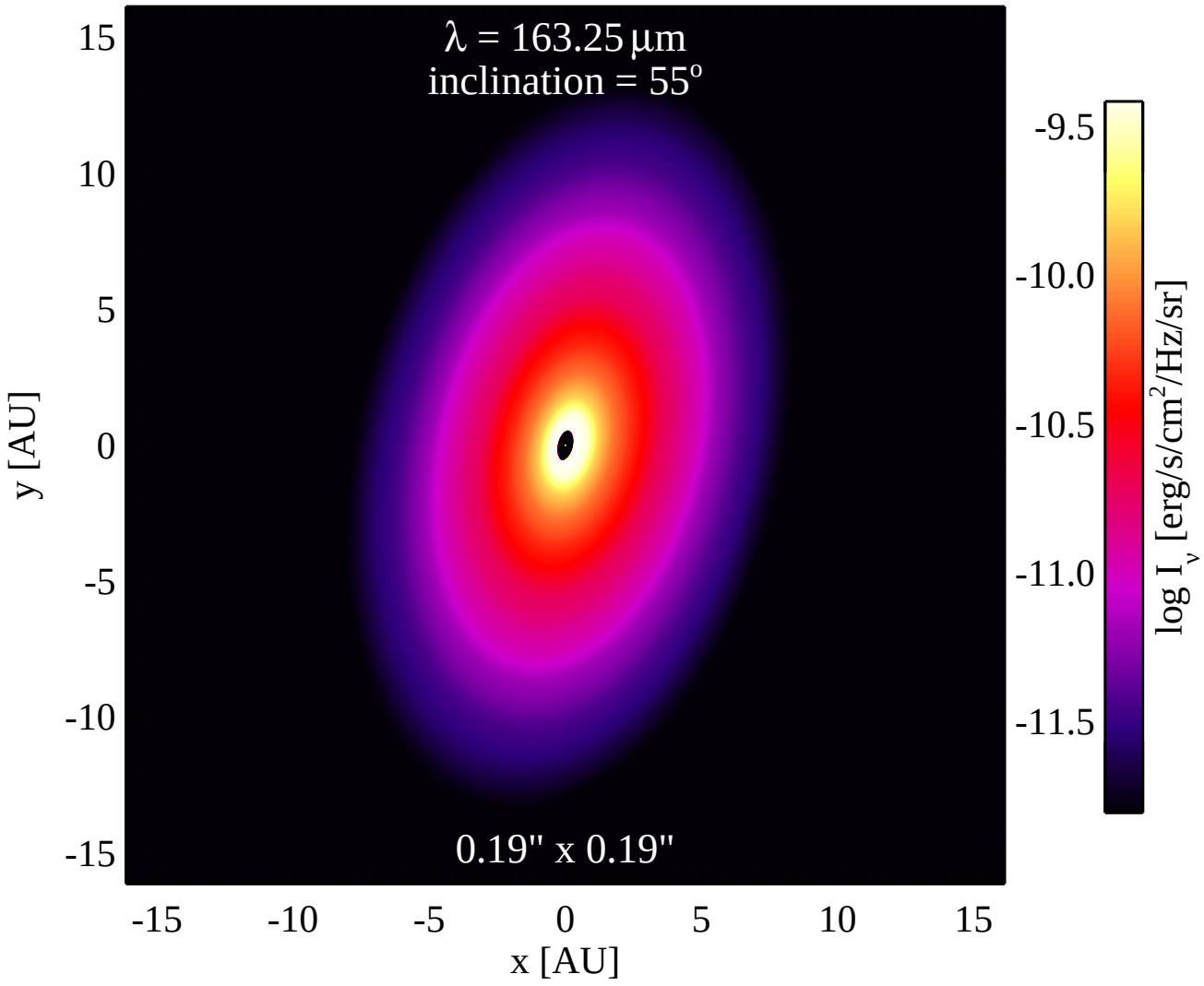

λ = 51.39 μm
inclination = 55°
0.089" x 0.089"
y [AU]
x [AU]
6
4
2
0
-2
-4
-6
-6
-4
-2
0
2
4
6
-8.5
-9.0
-9.5
-10.0
-10.5
log I_ν [erg/s/cm²/Hz/sr]

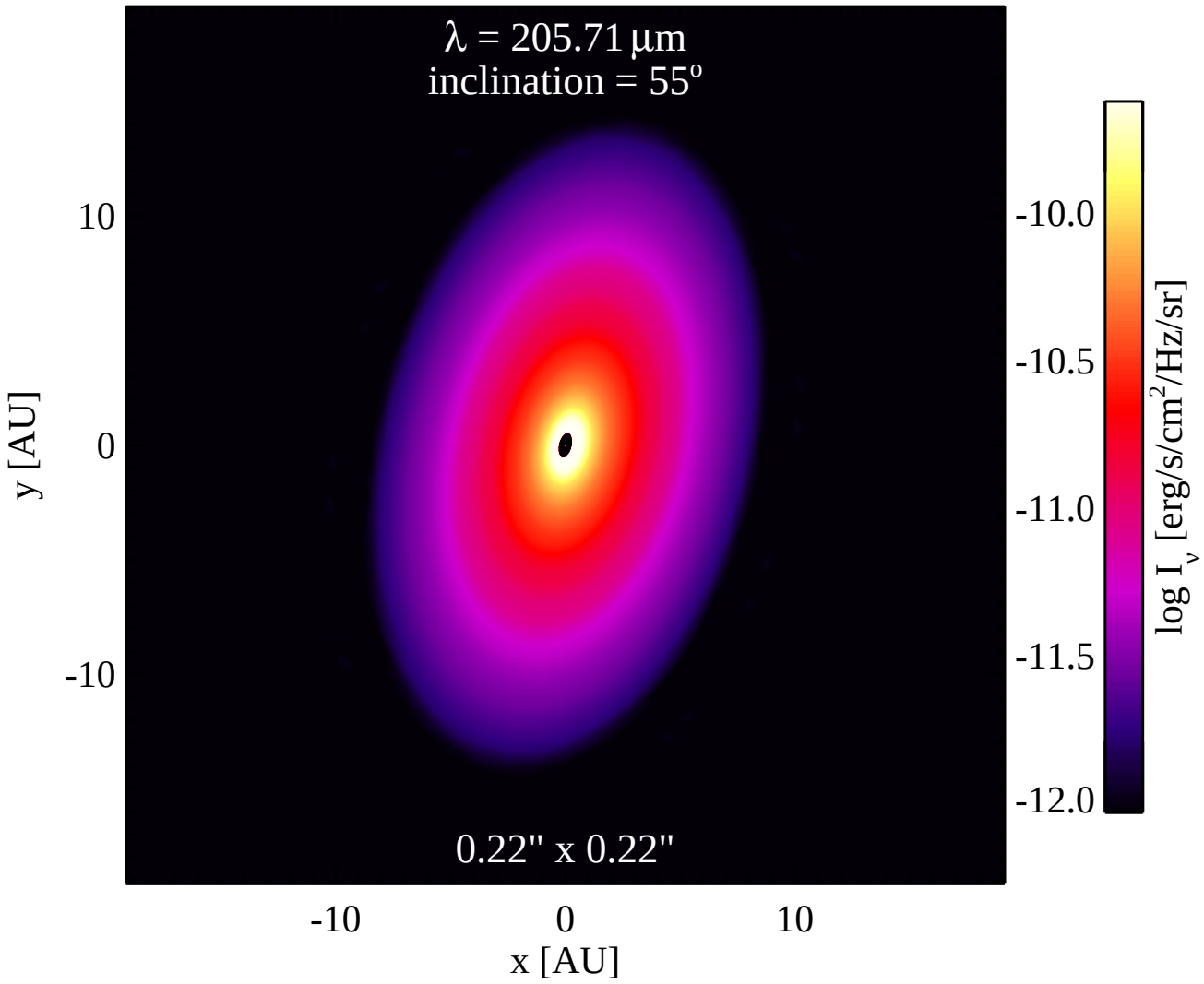

λ = 64.75 μm
inclination = 55°
0.10" x 0.10"
y [AU]
x [AU]
5
0
-5
-5
0
5
-9.0
-9.5
-10.0
-10.5
log I_ν [erg/s/cm²/Hz/sr]

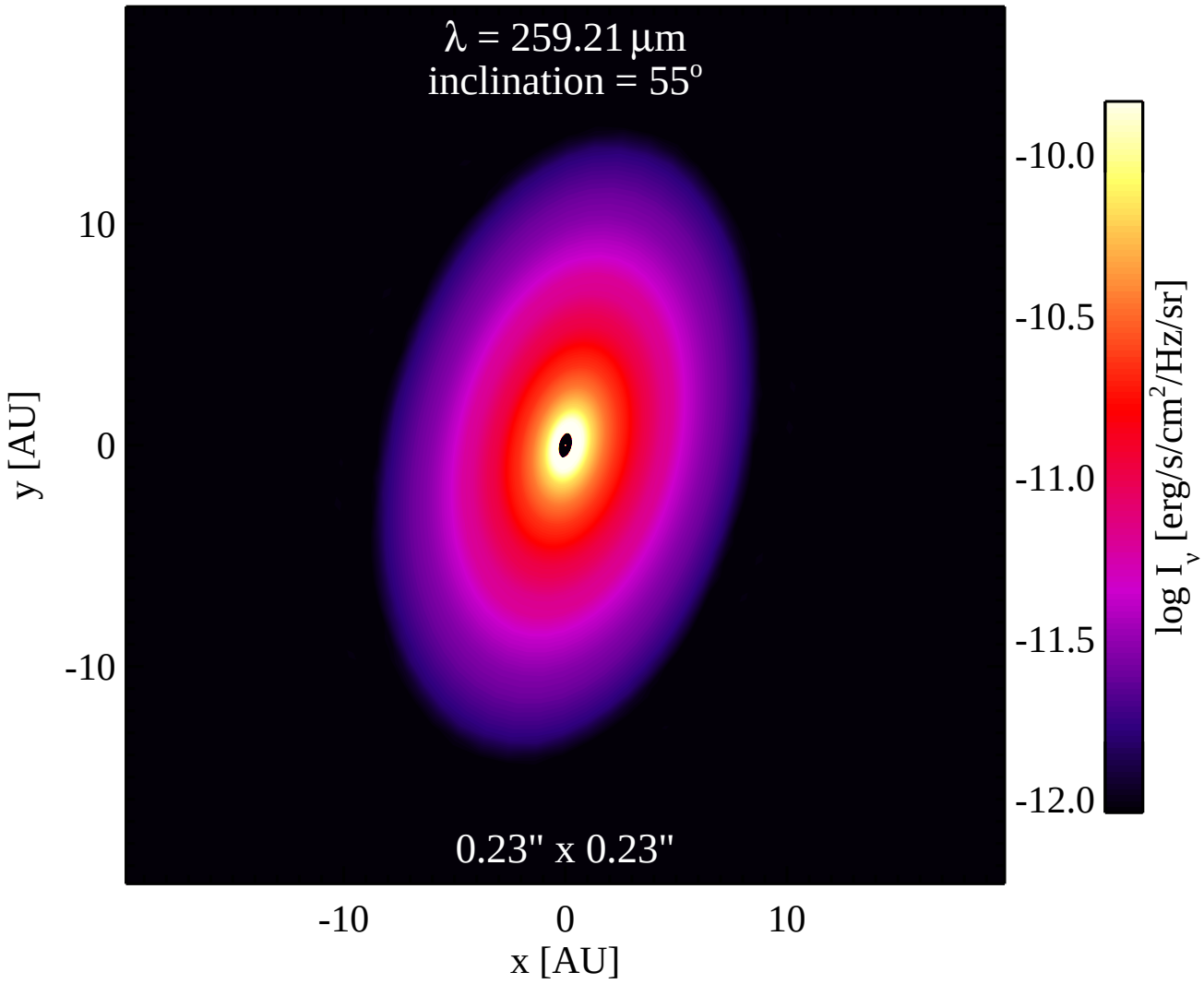

λ = 81.59 μm
inclination = 55°
0.12" x 0.12"
10
5
0
-5
-10
y [AU]
-10
-5
0
5
10
x [AU]
-9.0
-9.5
-10.0
-10.5
-11.0
log I_ν [erg/s/cm²/Hz/sr]

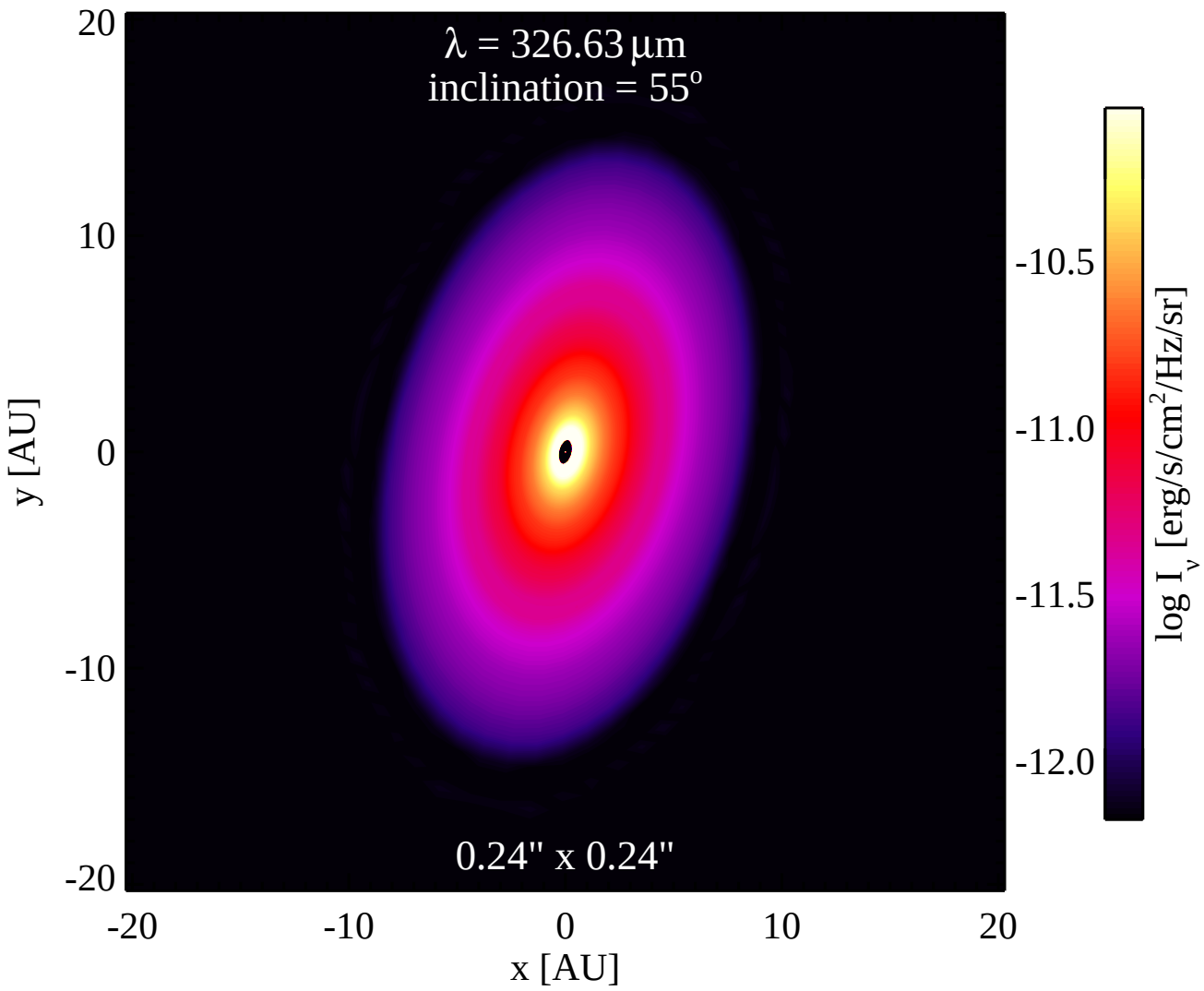

λ = 102.81 μm
inclination = 55°
0.14" x 0.14"
10
5
0
-5
-10
y [AU]
-10
-5
0
5
10
x [AU]
-9.0
-9.5
-10.0
-10.5
-11.0
log I_ν [erg/s/cm²/Hz/sr]

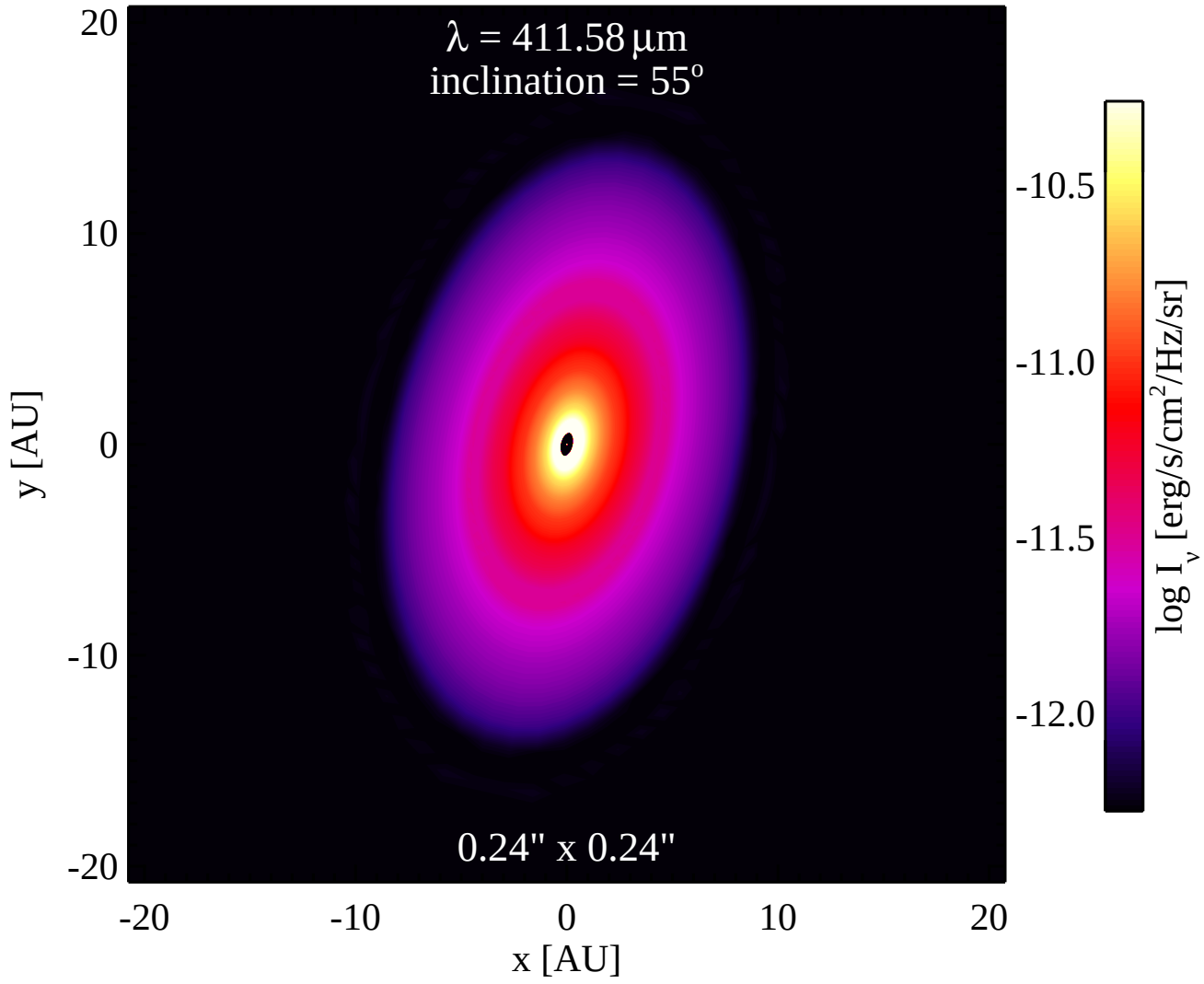

λ = 129.55 μm
inclination = 55°
0.17" x 0.17"
10
5
0
-5
-10
y [AU]
-10
-5
0
5
10
x [AU]
-9.5
-10.0
-10.5
-11.0
-11.5
log I_ν [erg/s/cm²/Hz/sr]

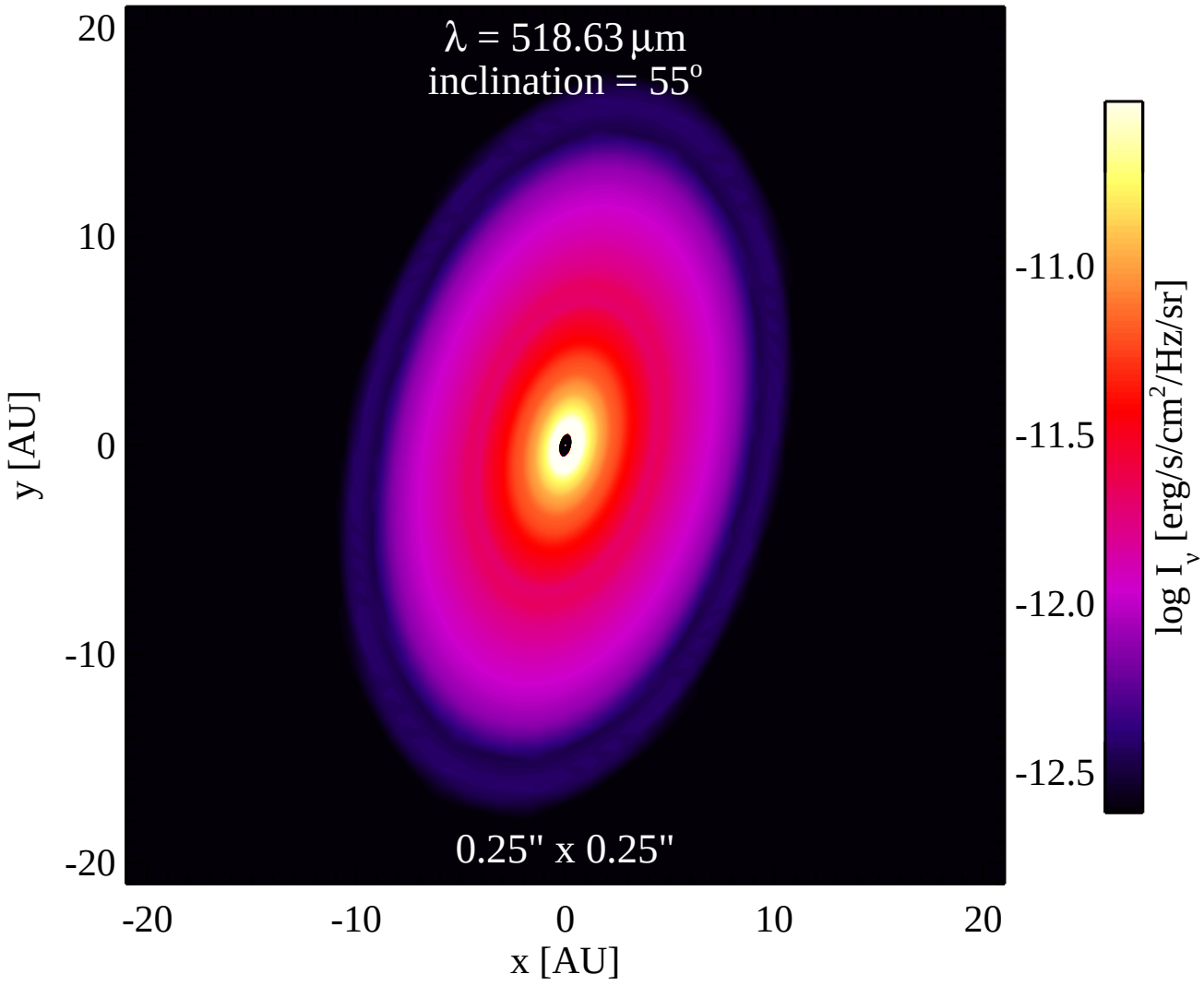

λ = 163.25 μm
inclination = 55°
0.19" x 0.19"
15
10
5
0
-5
-10
-15
y [AU]
-15
-10
-5
0
5
10
15
x [AU]
-9.5
-10.0
-10.5
-11.0
-11.5
log I_ν [erg/s/cm²/Hz/sr]

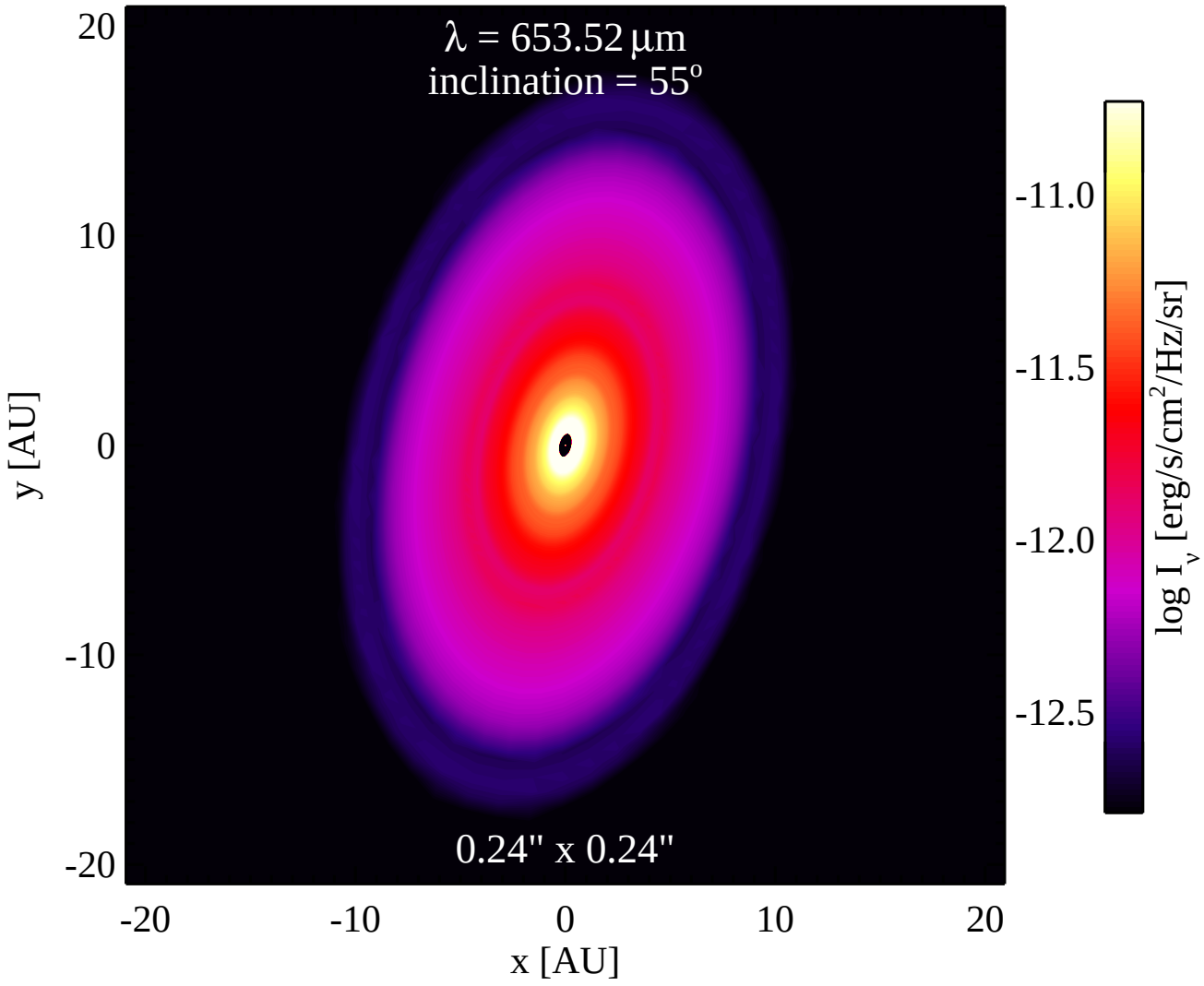

λ = 205.71 μm
inclination = 55°
0.22" x 0.22"
10
0
-10
y [AU]
-10
0
10
x [AU]
-10.0
-10.5
-11.0
-11.5
-12.0
log I_ν [erg/s/cm²/Hz/sr]

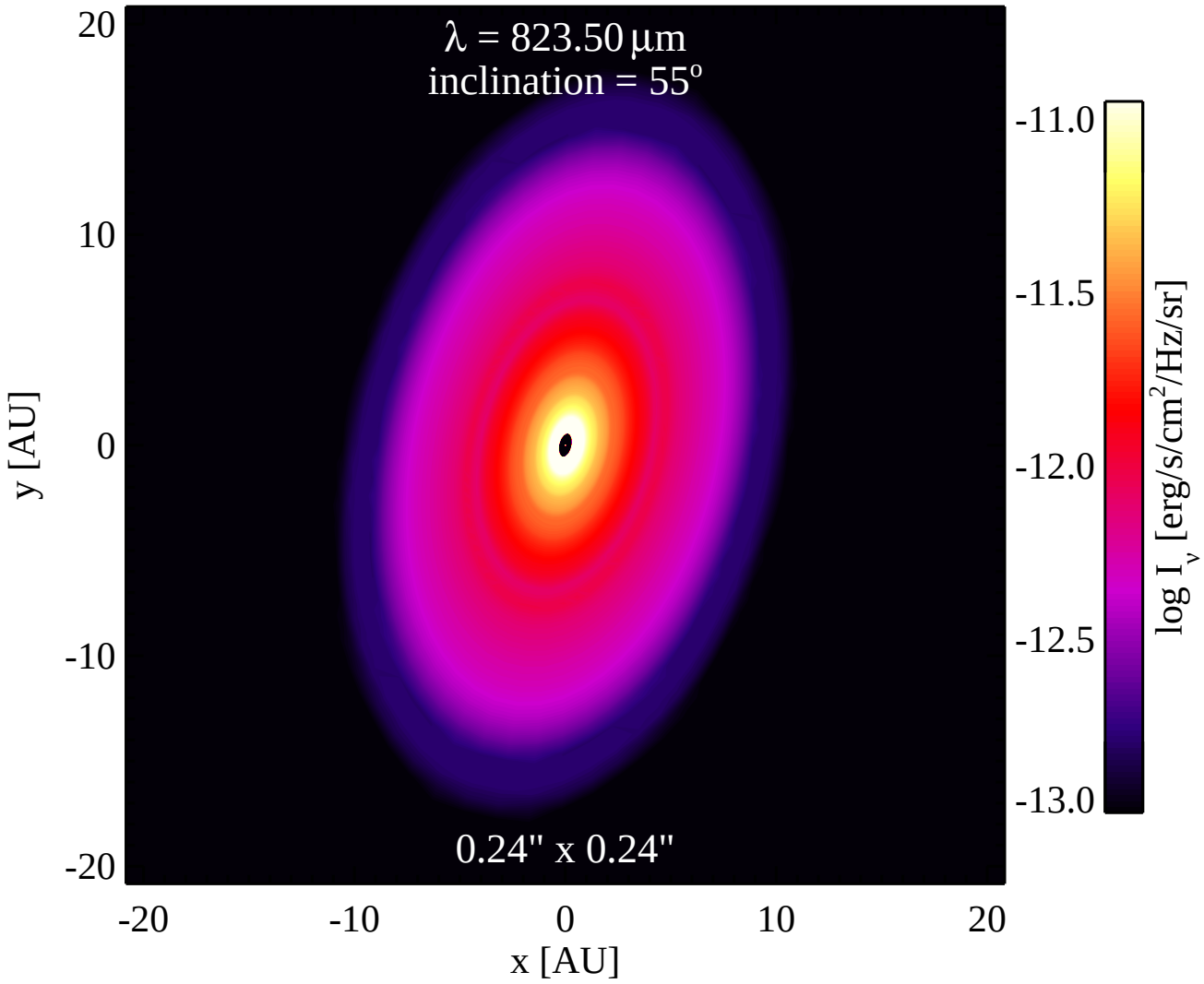

λ = 259.21 μm
inclination = 55°
0.23" x 0.23"
10
0
-10
y [AU]
-10
0
10
x [AU]
-10.0
-10.5
-11.0
-11.5
-12.0
log I_ν [erg/s/cm²/Hz/sr]

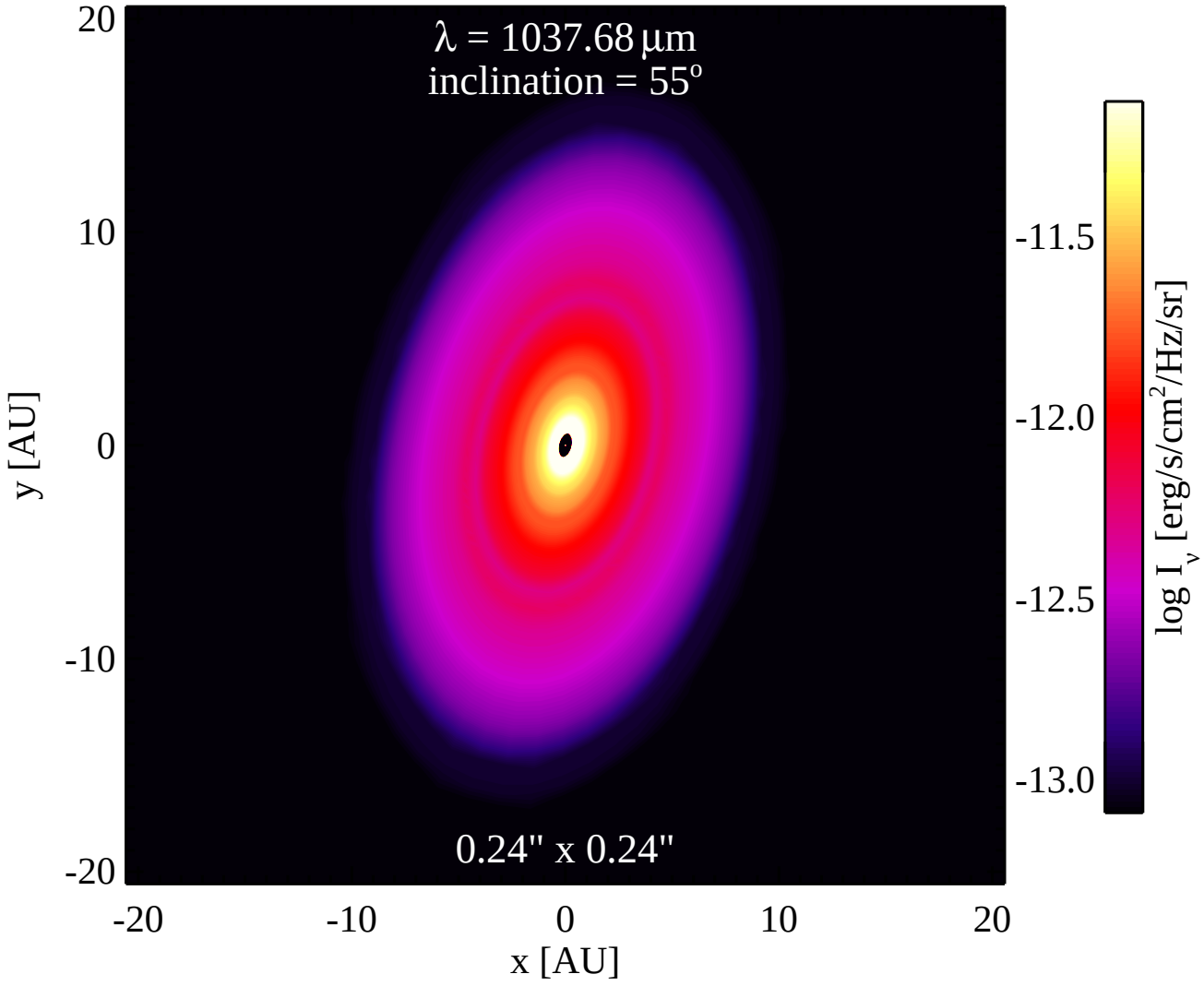

λ = 326.63 μm
inclination = 55°
0.24" x 0.24"
20
10
0
-10
-20
y [AU]
-20
-10
0
10
20
x [AU]
-10.5
-11.0
-11.5
-12.0
log I_ν [erg/s/cm²/Hz/sr]

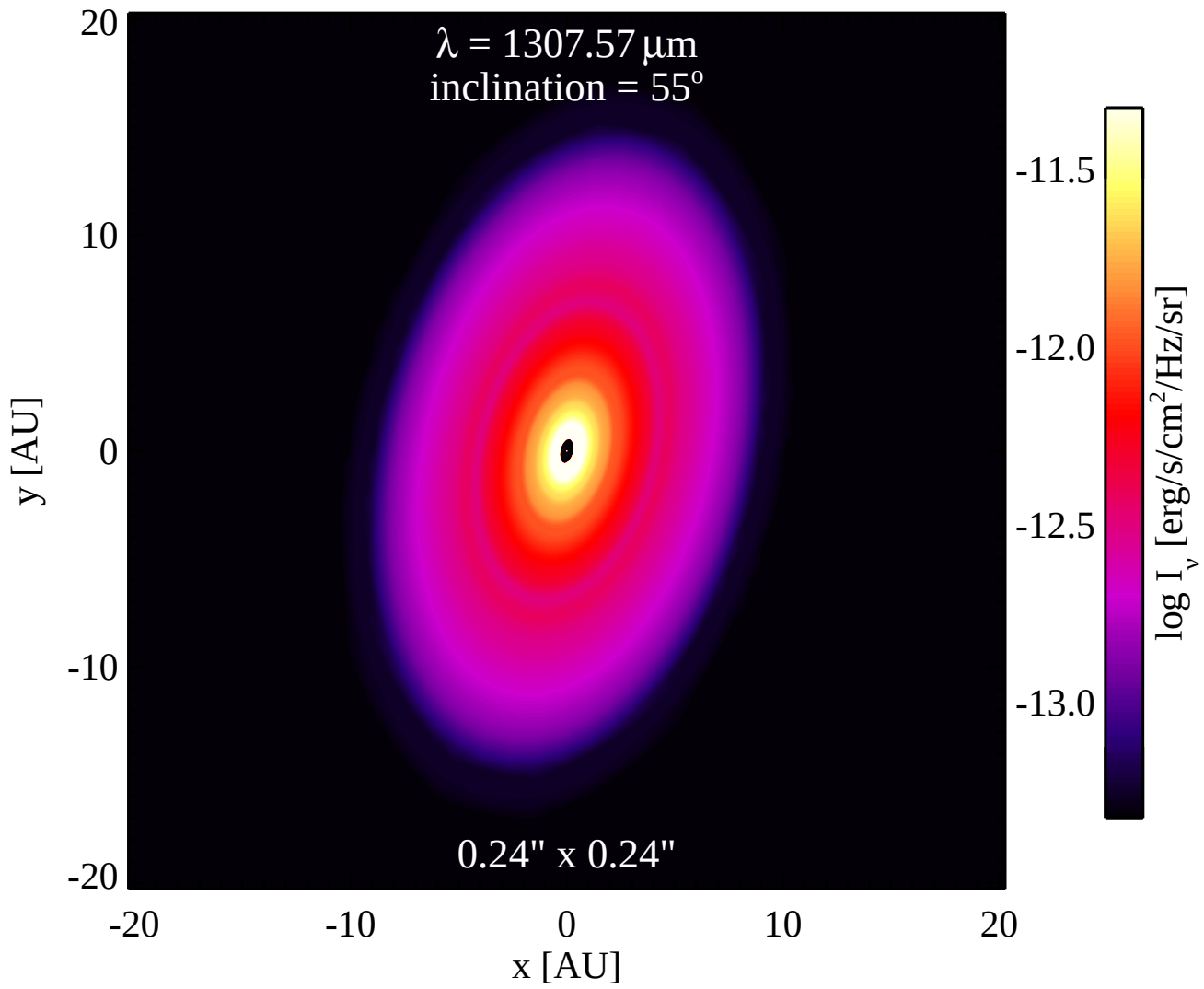

λ = 411.58 μm
inclination = 55°
0.24" x 0.24"
20
10
0
-10
-20
y [AU]
-20
-10
0
10
20
x [AU]
-10.5
-11.0
-11.5
-12.0
log I_ν [erg/s/cm²/Hz/sr]

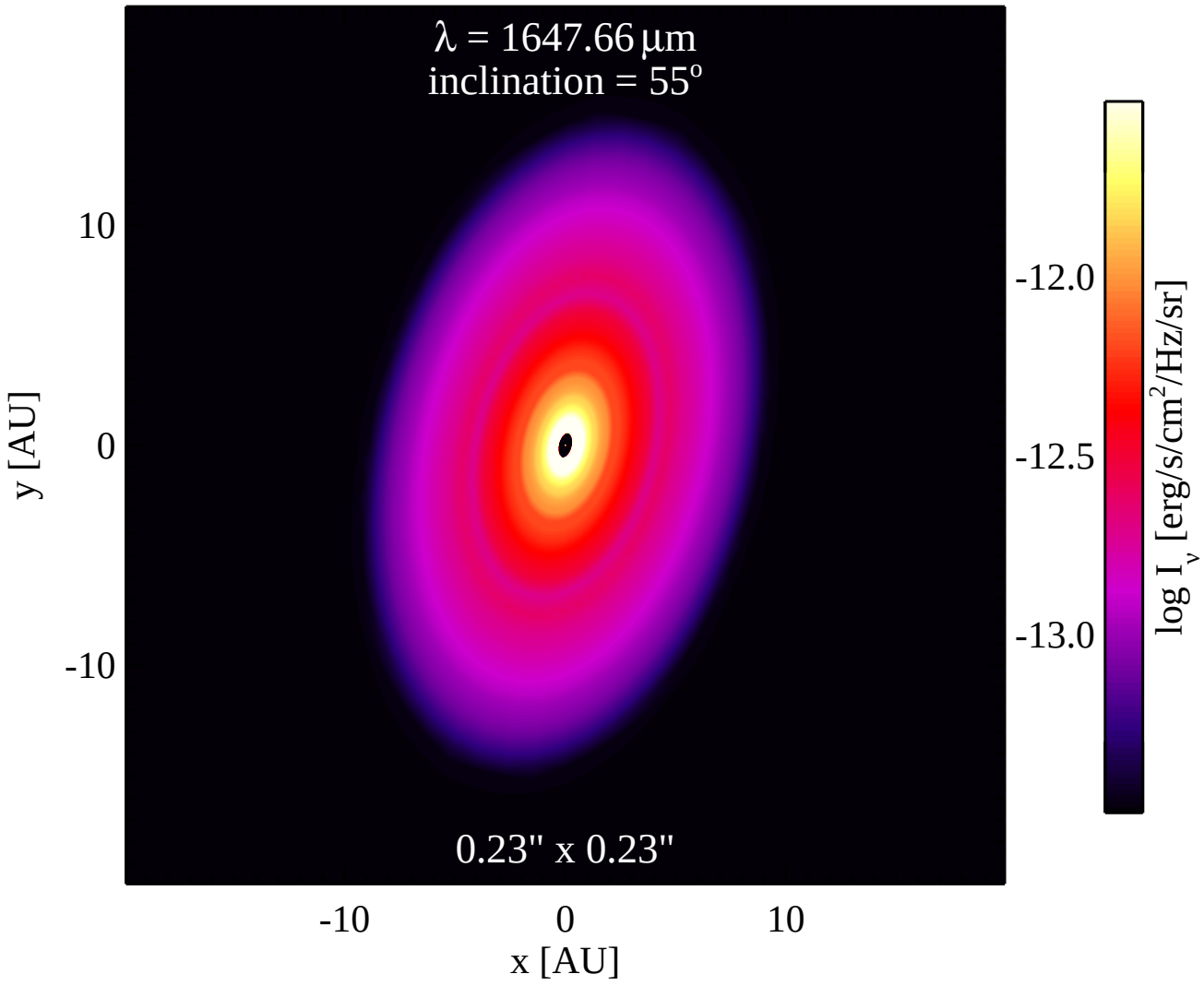

λ = 518.63 μm
inclination = 55°
0.25" x 0.25"
20
10
0
-10
-20
y [AU]
-20
-10
0
10
20
x [AU]
-11.0
-11.5
-12.0
-12.5
log I_ν [erg/s/cm²/Hz/sr]

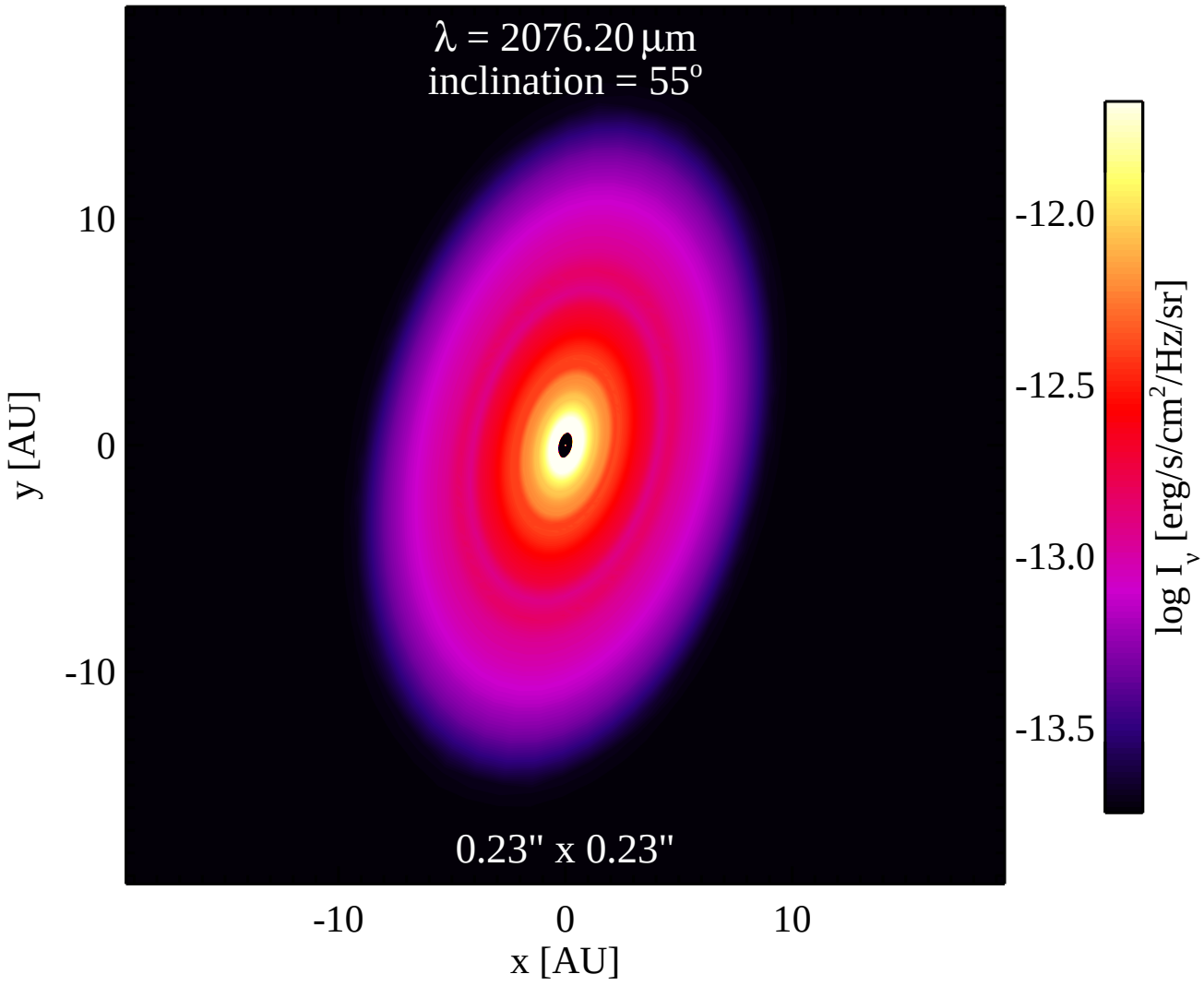

λ = 653.52 μm
inclination = 55°
0.24" x 0.24"
20
10
0
-10
-20
y [AU]
-20
-10
0
10
20
x [AU]
-11.0
-11.5
-12.0
-12.5
log I_ν [erg/s/cm²/Hz/sr]

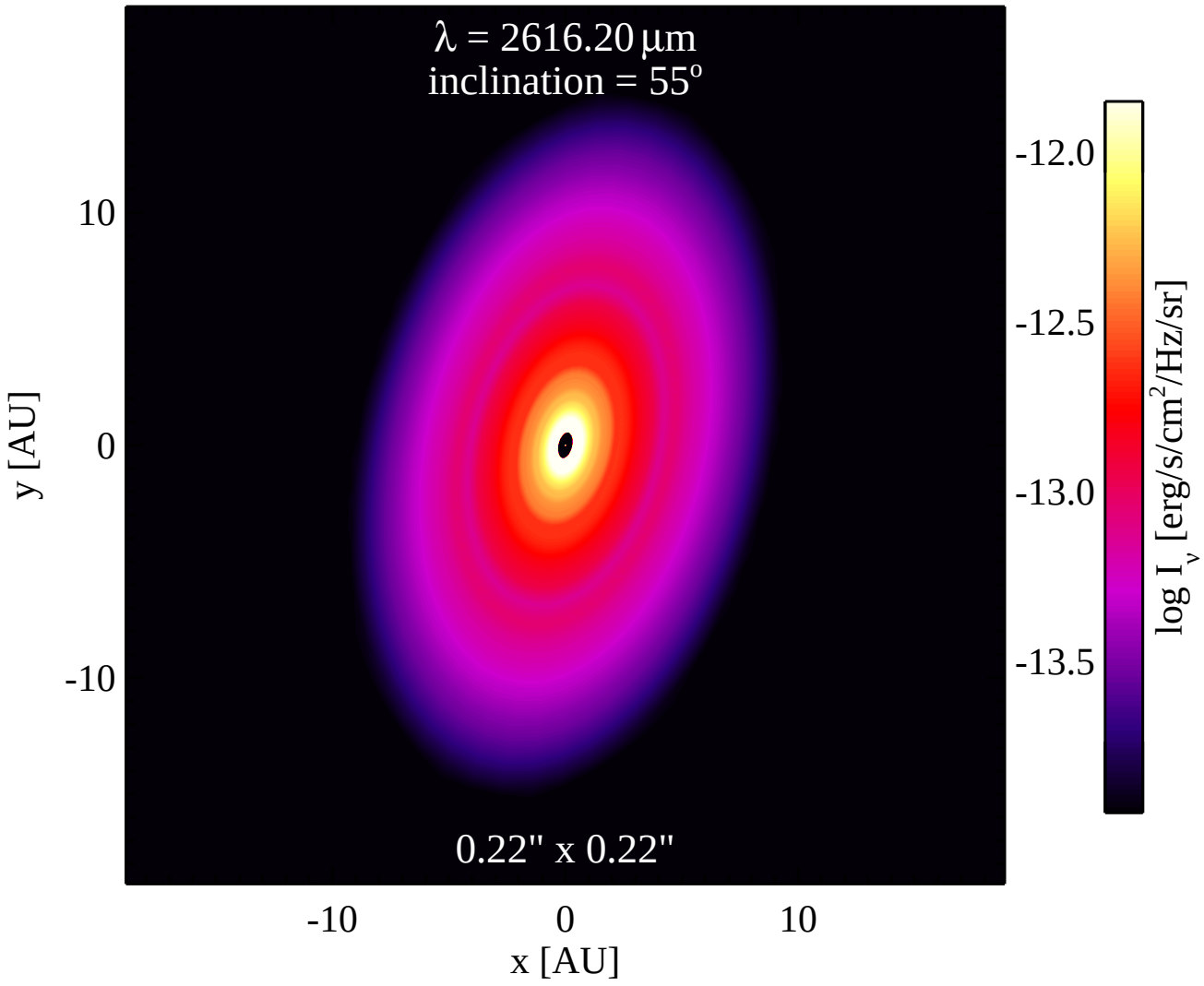

λ = 823.50 μm
inclination = 55°
0.24" x 0.24"
20
10
0
-10
-20
y [AU]
-20
-10
0
10
20
x [AU]
-11.0
-11.5
-12.0
-12.5
-13.0
log I_ν [erg/s/cm²/Hz/sr]

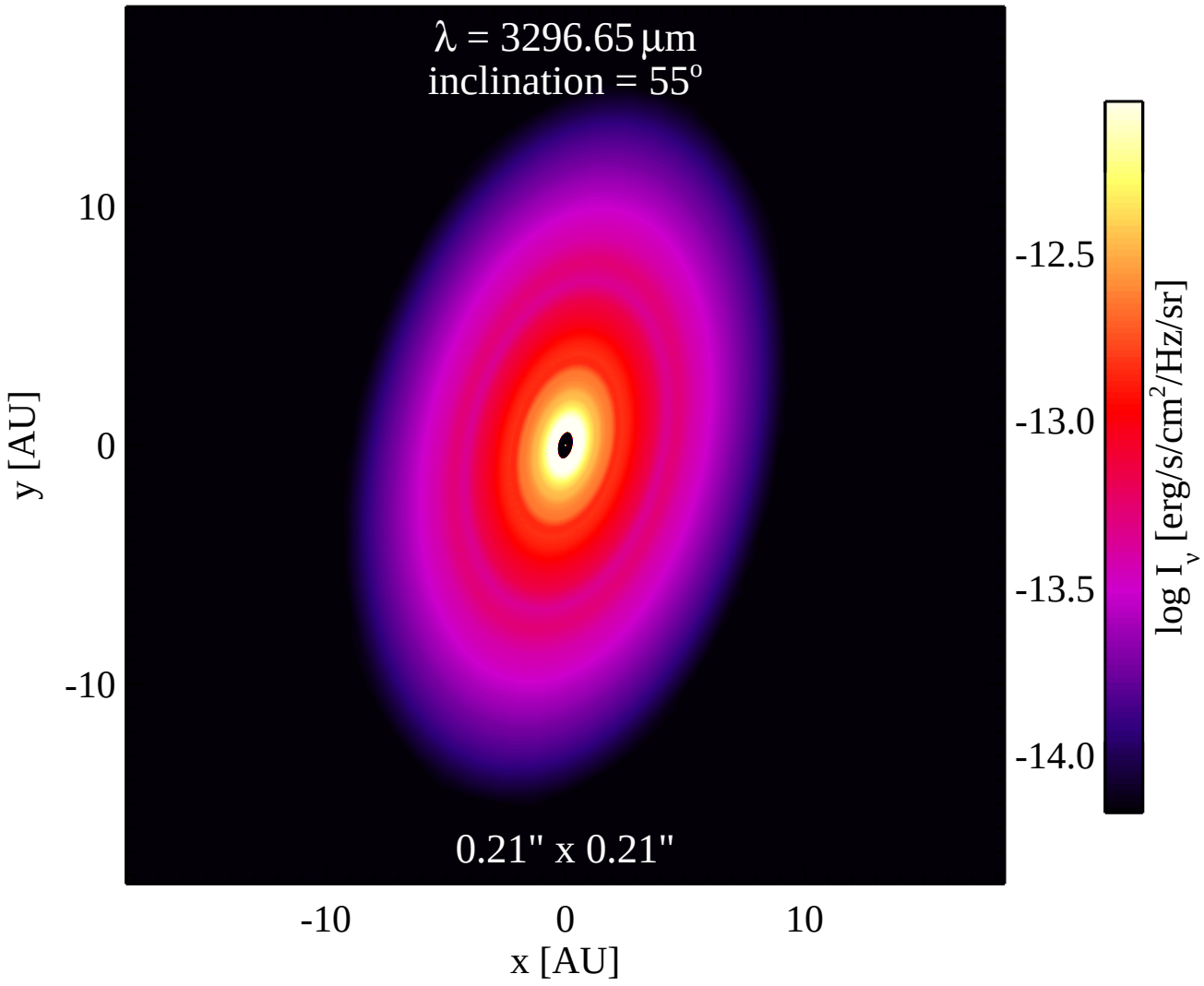

λ = 1037.68 μm
inclination = 55°
0.24" x 0.24"
20
10
0
-10
-20
y [AU]
-20
-10
0
10
20
x [AU]
-11.5
-12.0
-12.5
-13.0
log I_ν [erg/s/cm²/Hz/sr]

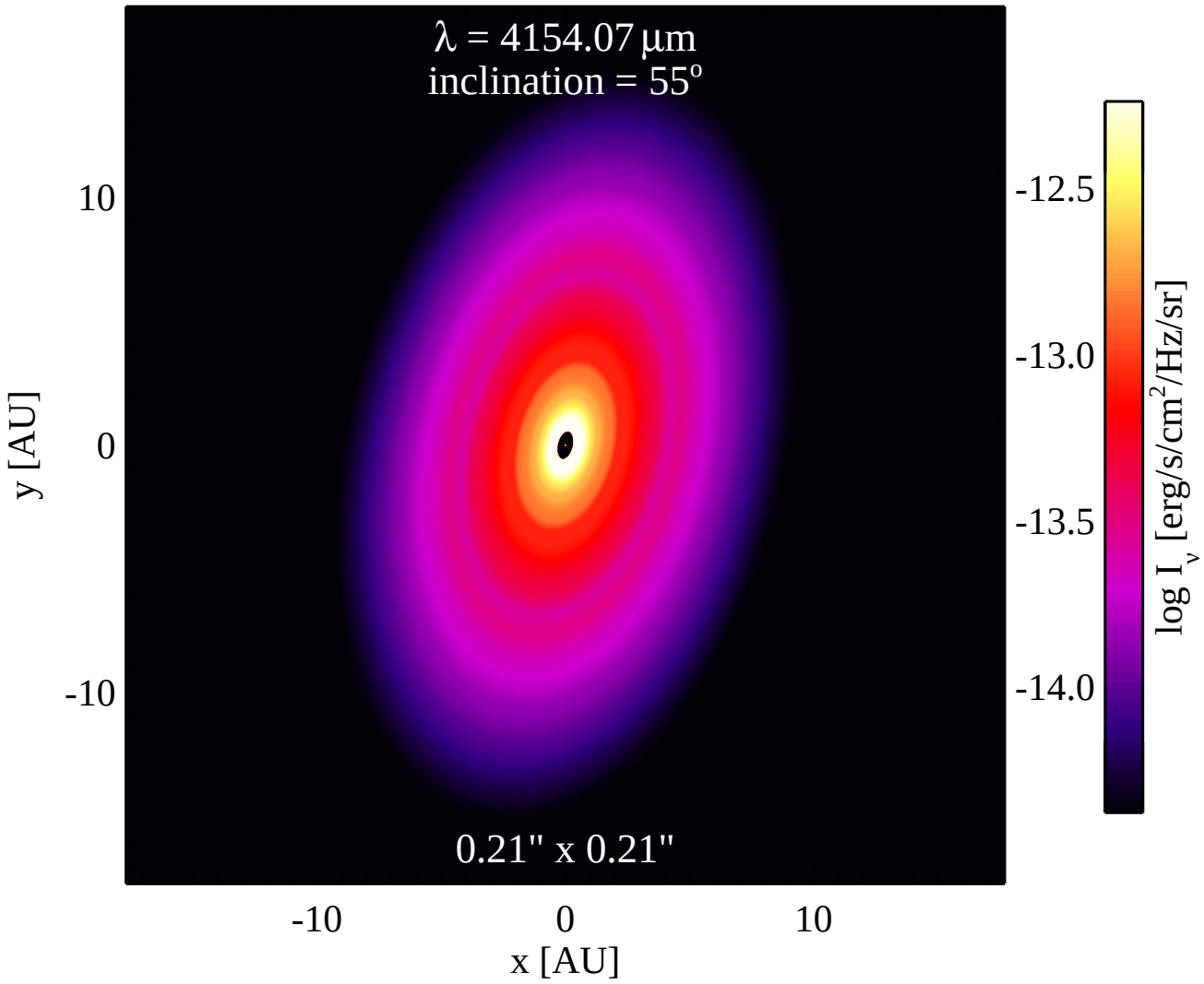

λ = 1307.57 μm
inclination = 55°
0.24" x 0.24"
20
10
0
-10
-20
y [AU]
-20
-10
0
10
20
x [AU]
-11.5
-12.0
-12.5
-13.0
log I_ν [erg/s/cm²/Hz/sr]


λ = 1647.66 μm
inclination = 55°
0.23" x 0.23"
10
0
-10
y [AU]
-10
0
10
x [AU]
-12.0
-12.5
-13.0
log I_ν [erg/s/cm²/Hz/sr]


λ = 2076.20 μm
inclination = 55°
0.23" x 0.23"
10
0
-10
y [AU]
-10
0
10
x [AU]
-12.0
-12.5
-13.0
-13.5
log I_ν [erg/s/cm²/Hz/sr]


λ = 2616.20 μm
inclination = 55°
0.22" x 0.22"
10
0
-10
y [AU]
-10
0
10
x [AU]
-12.0
-12.5
-13.0
-13.5
log I_ν [erg/s/cm²/Hz/sr]


λ = 3296.65 μm
inclination = 55°
0.21" x 0.21"
10
0
-10
y [AU]
-10
0
10
x [AU]
-12.5
-13.0
-13.5
-14.0
log I_ν [erg/s/cm²/Hz/sr]


λ = 4154.07 μm
inclination = 55°
0.21" x 0.21"
10
0
-10
y [AU]
-10
0
10
x [AU]
-12.5
-13.0
-13.5
-14.0
log I_ν [erg/s/cm²/Hz/sr]