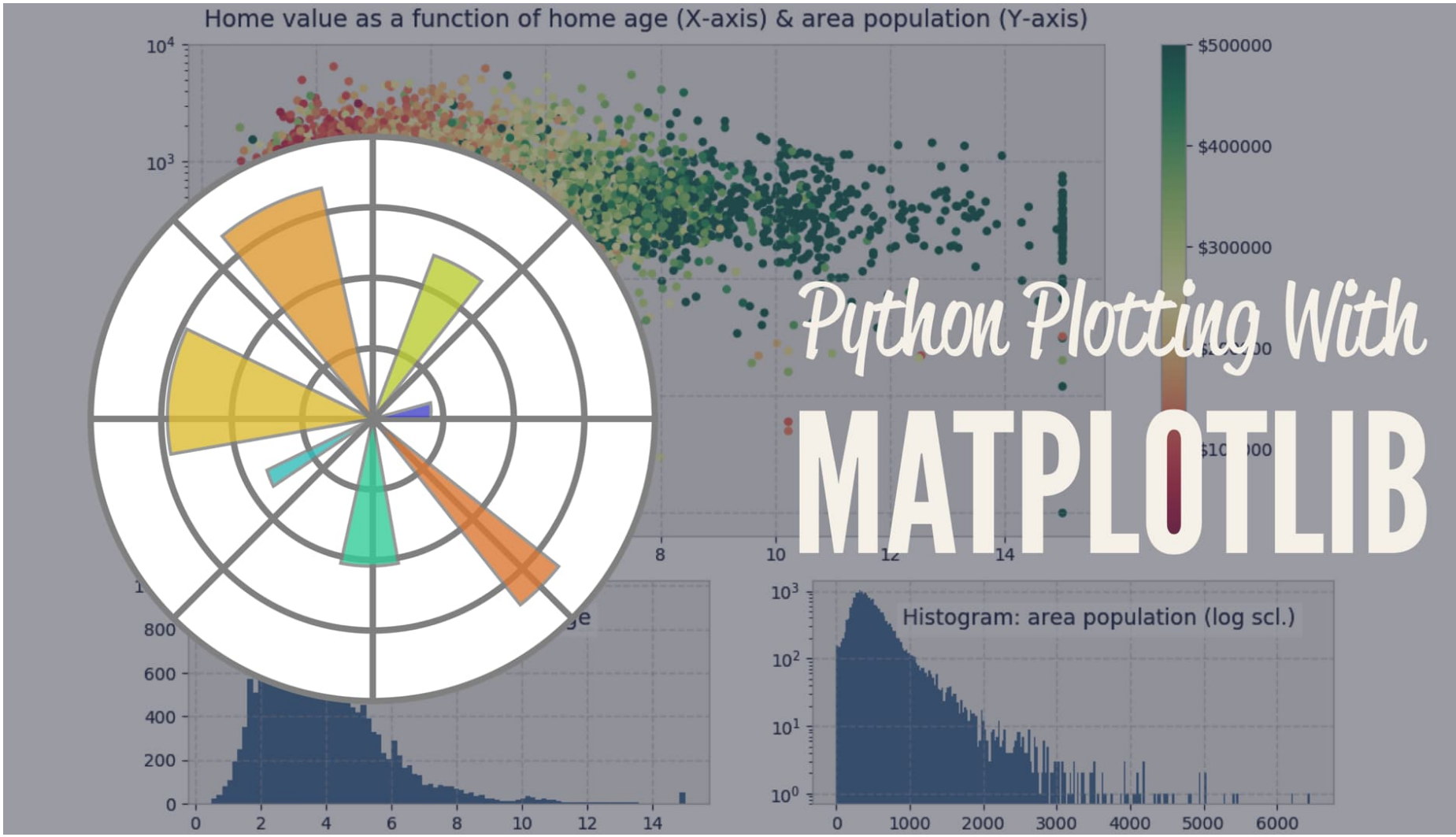
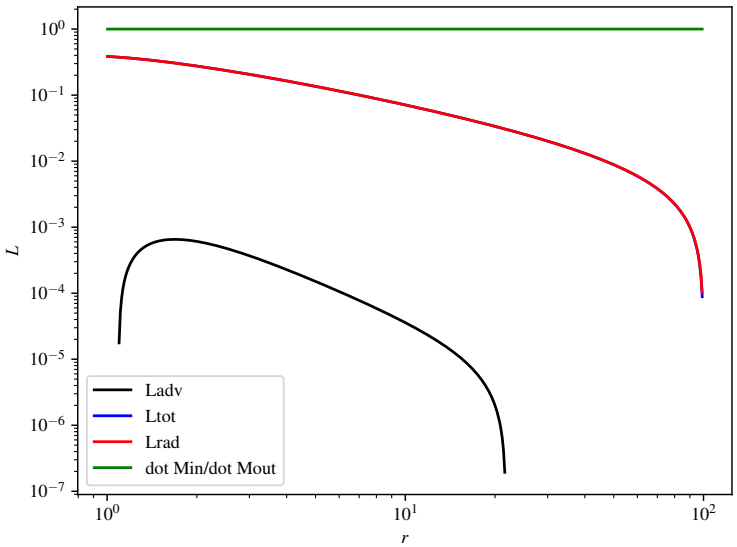
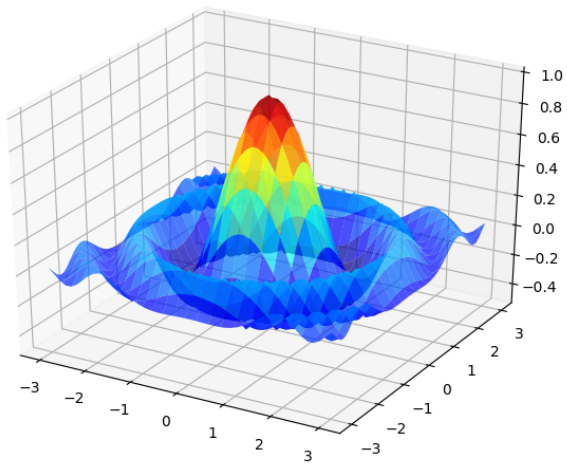
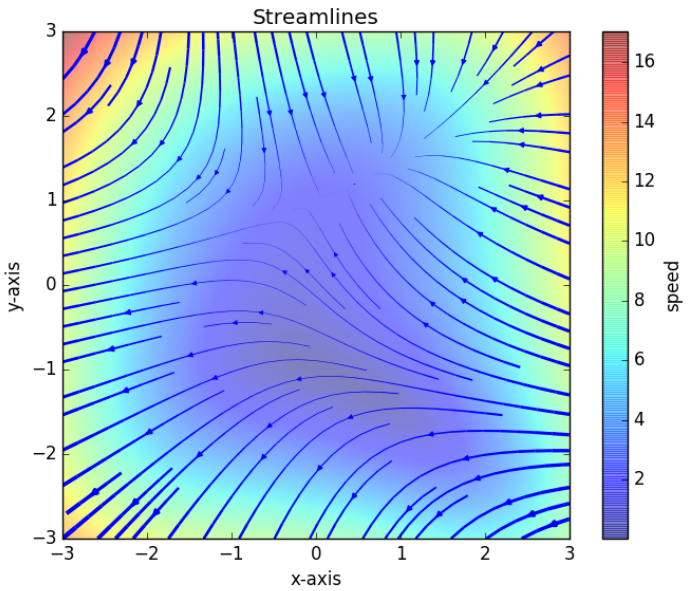
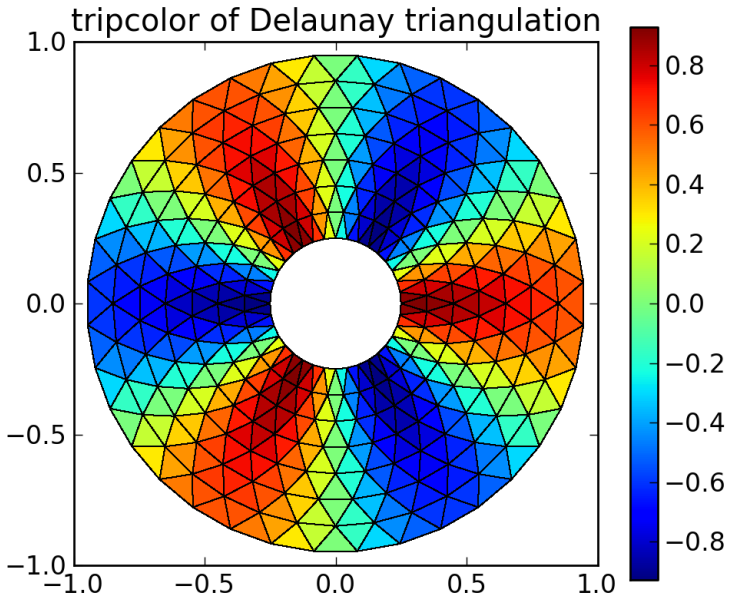

Home value as a function of home age (X-axis) & area population (Y-axis)
10^4
10^3
$500000
$400000
$300000
Python Plotting With
MATPLOTLIB
Histogram: area population (log scl.)
10^3
10^2
10^1
10^0
0
1000
2000
3000
4000
5000
6000
800
600
400
200
0
2
4
6
8
10
12
14

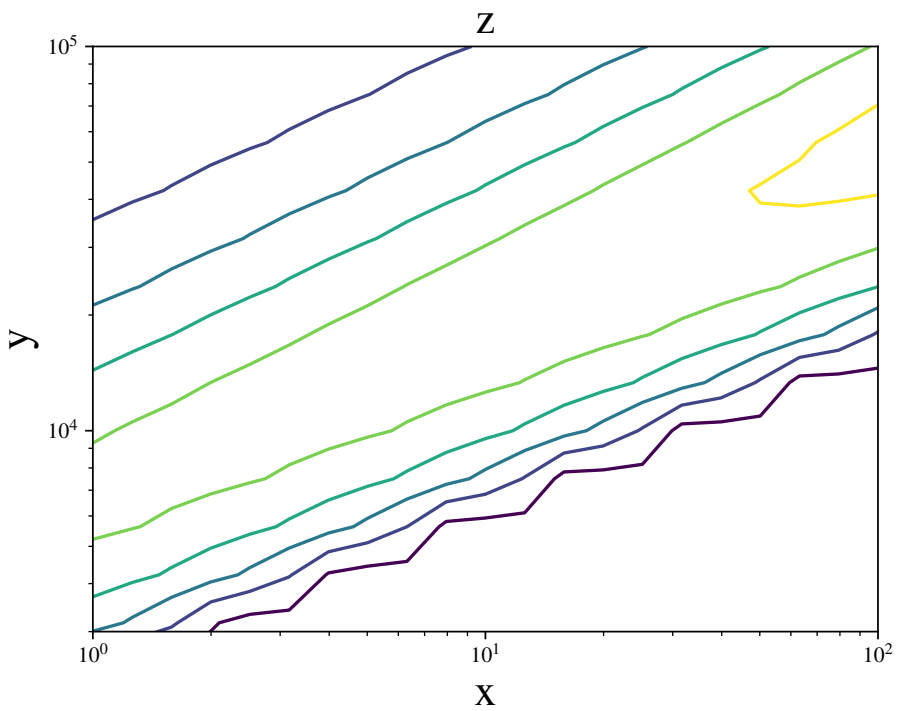

Ladv
Ltot
Lrad
dot Min/dot Mout
L
r



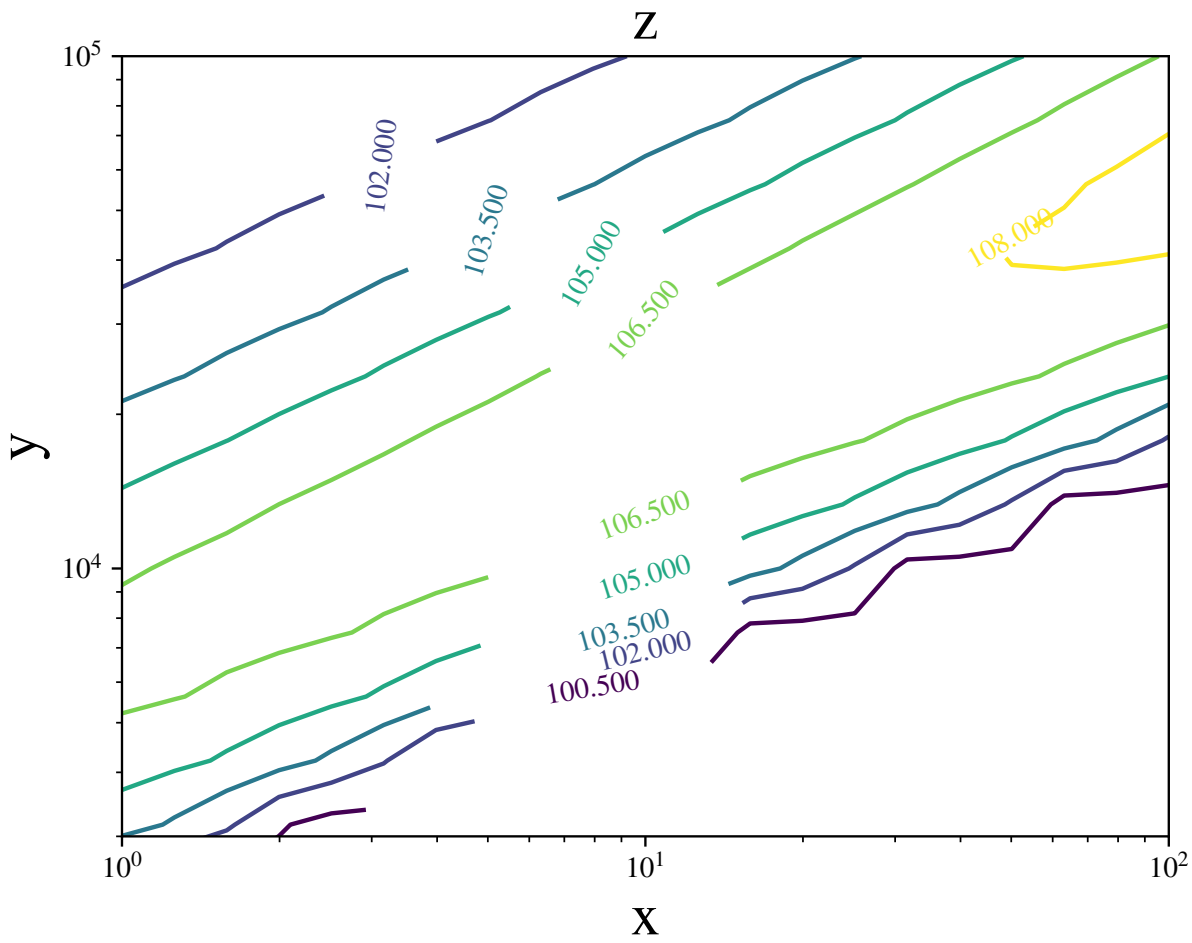

Streamlines
x-axis
y-axis
speed


tripcolor of Delaunay triangulation

Simple contours

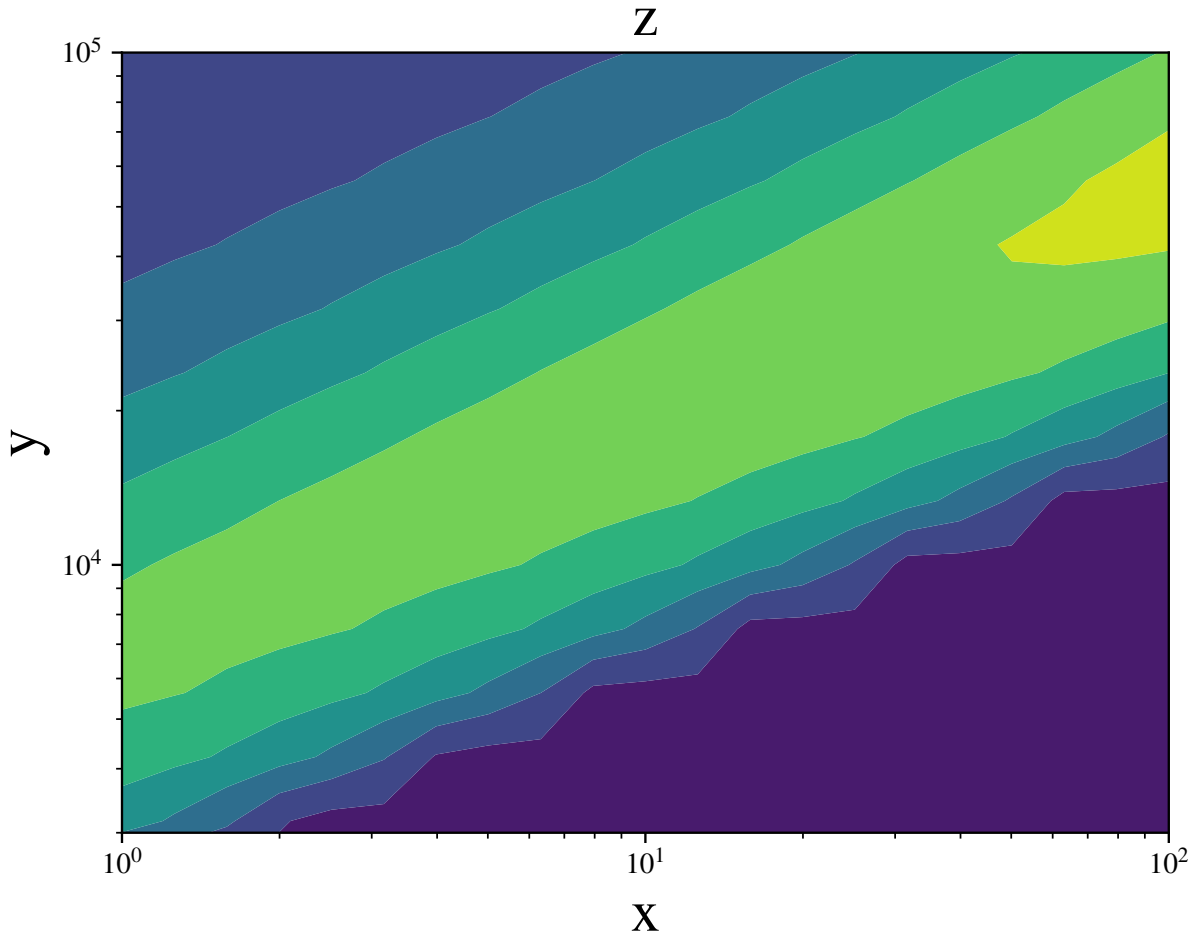



```
plt.clf()
fig=plt.figure()
CS=plt.contour(x,y,z)
title('z',fontsize=20)
xlabel('x',fontsize=20)
ylabel('y',fontsize=20)
xscale('log')
yscale('log')
ylim(3.e3,1.e5)
plt.savefig('plot6.pdf')
plt.close()
```

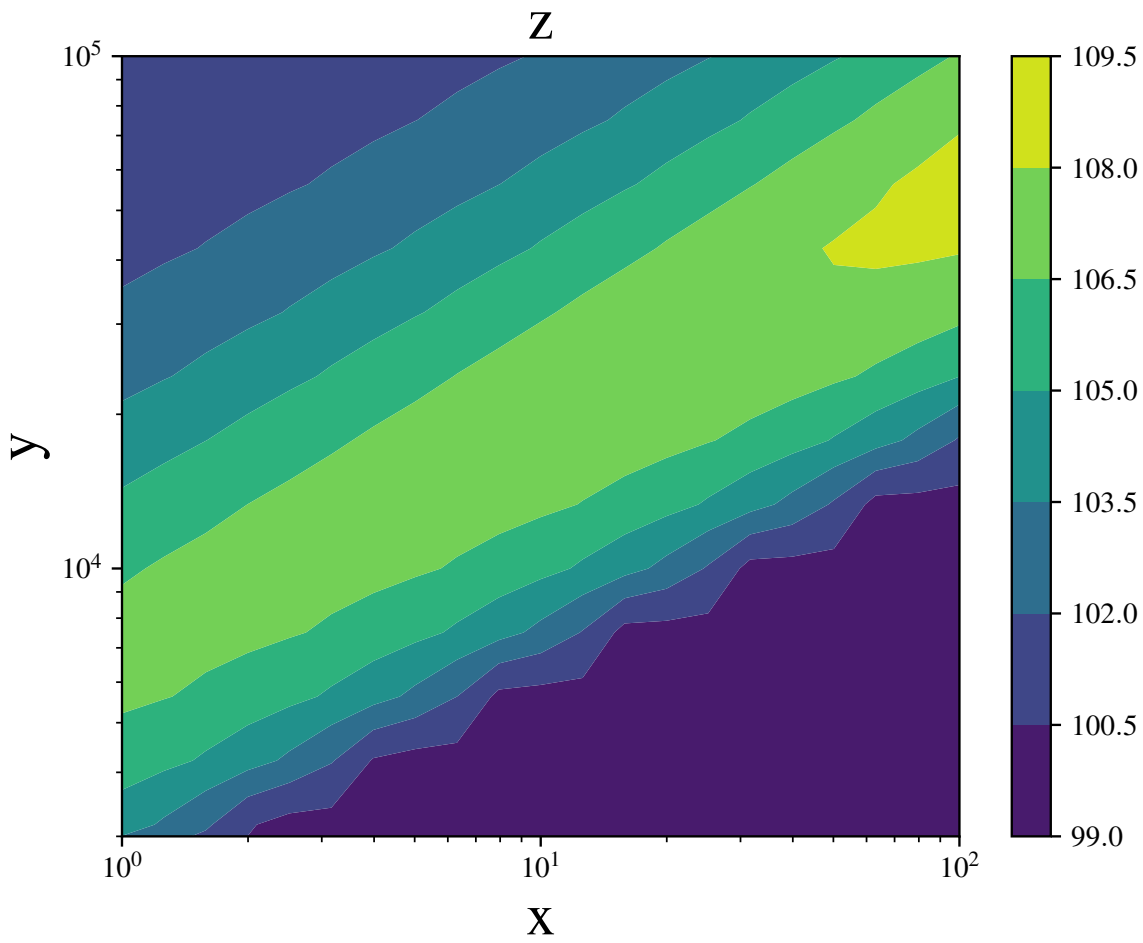


CS=plt.contour(x,y,z)

plt.clabel(CS, inline=1, fontsize=10)

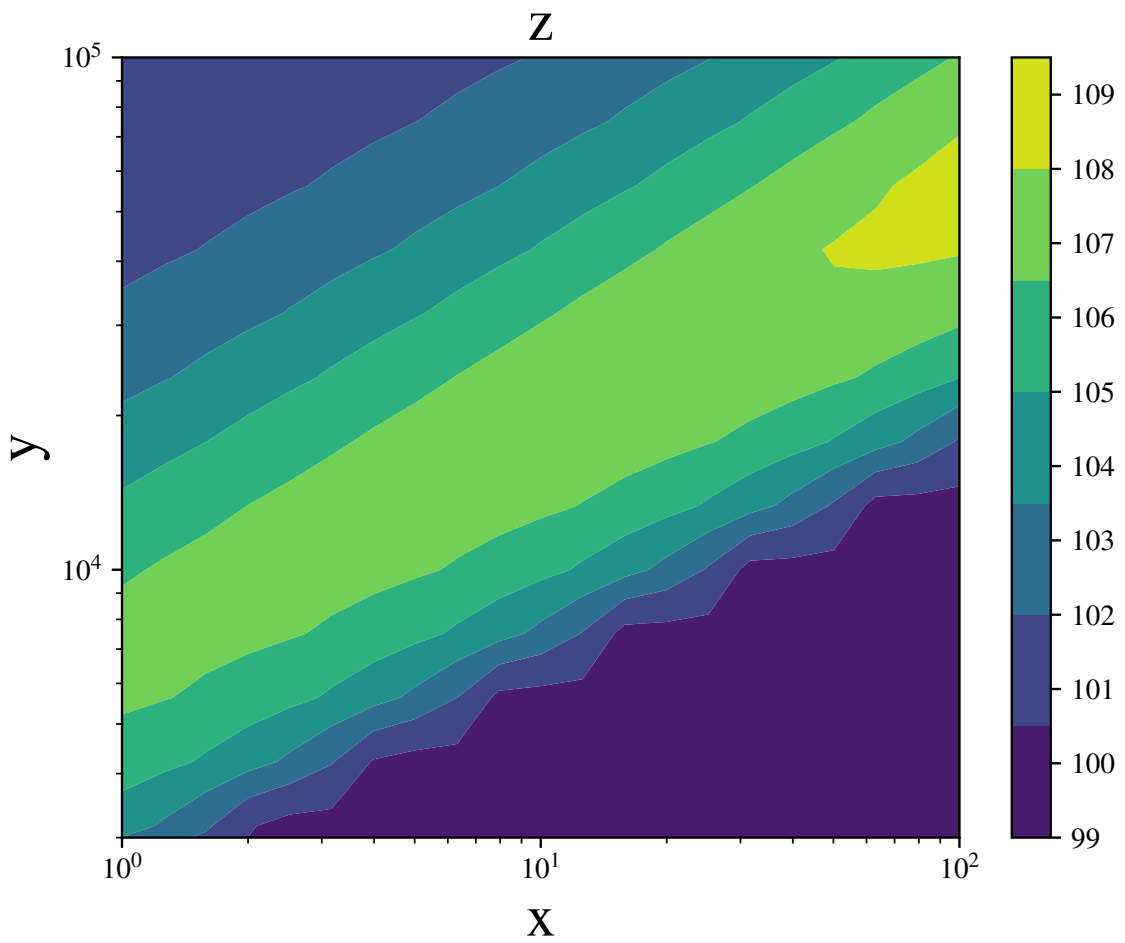


CS=plt.contourf(x,y,z)



CS=plt.contourf(x,y,z)

cbar = plt.colorbar(CS)

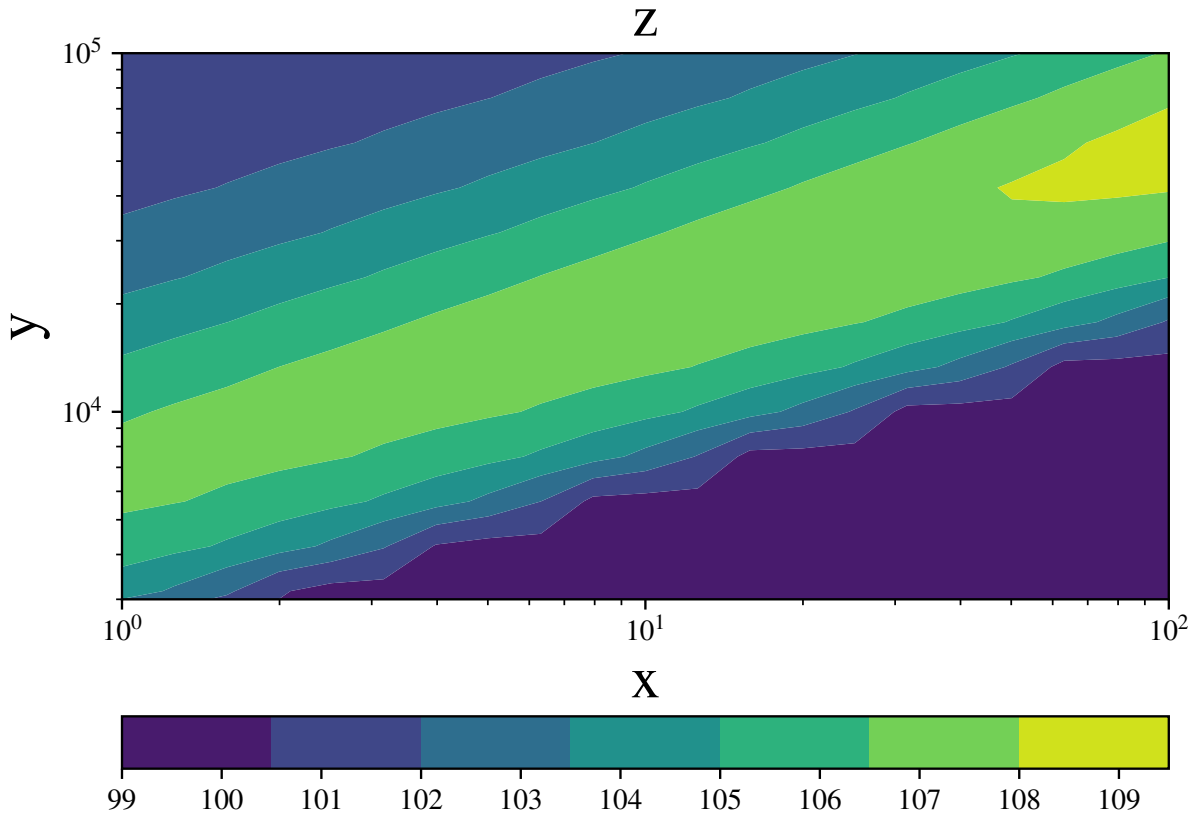


ticks1=np.arange(99.,110.,1.)

...

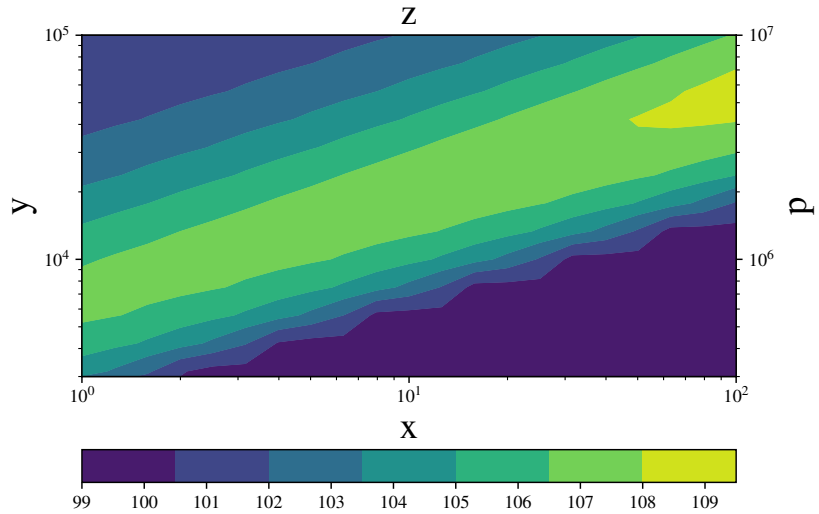
CS=plt.contourf(x,y,z)

cbar = plt.colorbar(CS,ticks=ticks1)



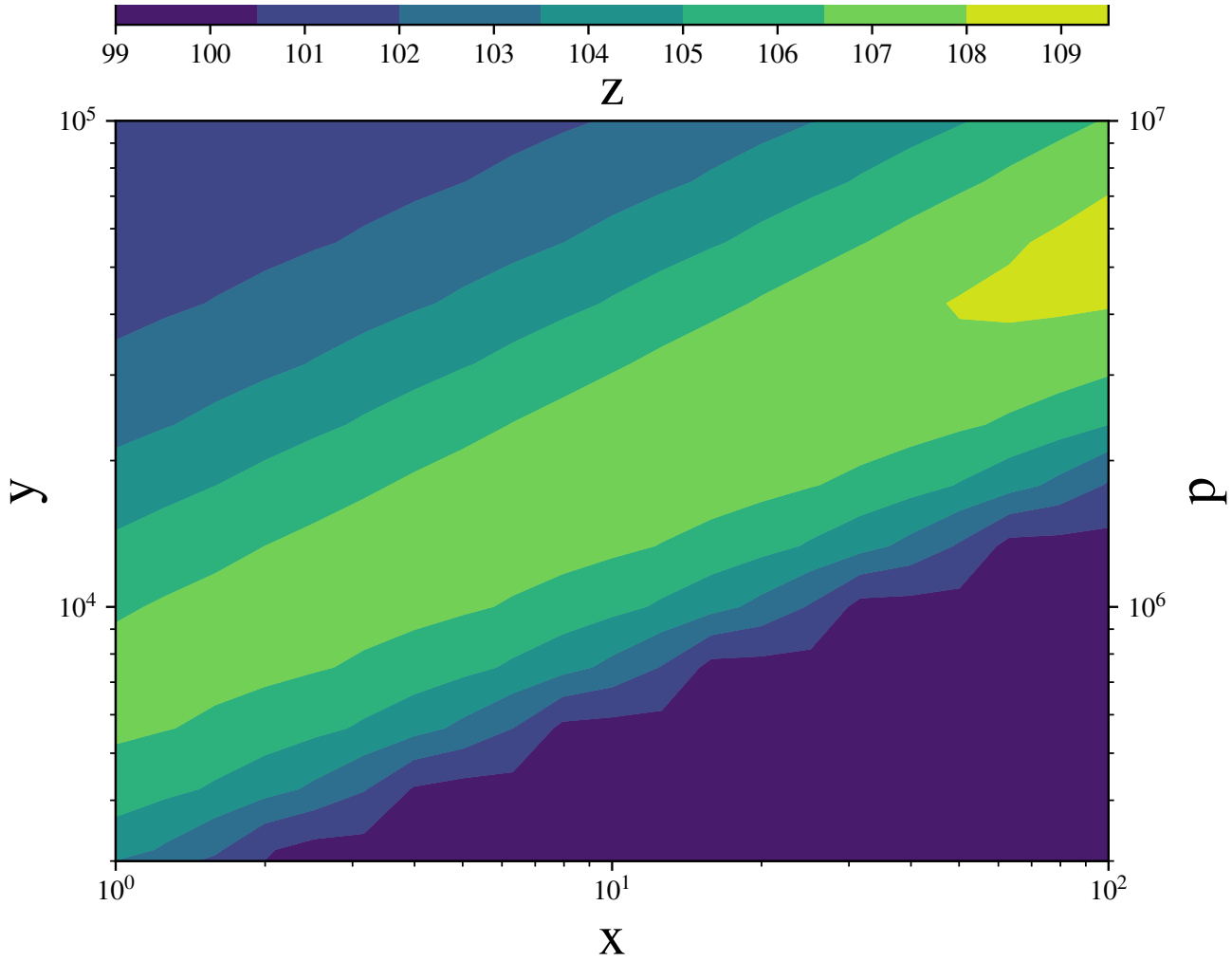
CS=plt.contourf(x,y,z)
cbar = plt.colorbar(CS,ticks=ticks1,orientation='horizontal')

Simple contours




```
ax = fig.add_subplot(111)
CS=ax.contourf(x, y, z)
cbar = plt.colorbar(...)
ax2 = ax.twinx()
ax2.contourf(x, p, z)
title('z',fontsize=20)
ax.setxlabel('x',fontsize=20)
```

```
ax.set_ylabel('y',fontsize=20)
ax.set_ylim(3.e3,1.e5)
ax2.set_ylabel('p',fontsize=20)
ax.set_xscale('log')
ax.set_yscale('log')
ax2.set_yscale('log')
ax2.set_ylim(3.e5,1.e7)
```




```
CS=ax.contourf(x, y, z)
p0 = ax.get_position().get_points().flatten()
ax_cbar = fig.add_axes([p0[0], p0[3]+0.1, p0[2]-0.125, 0.05])
cbar = plt.colorbar(CS,cax=ax_cbar,ticks=ticks1,orientation='horiz')
```

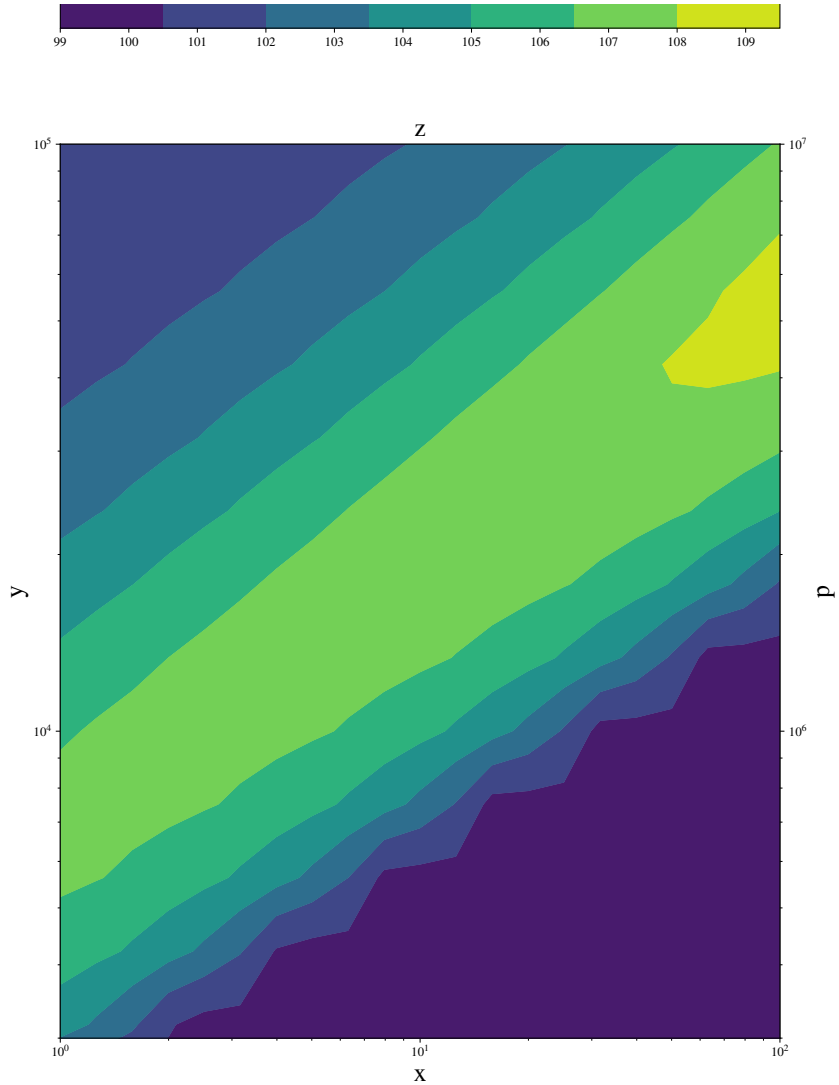
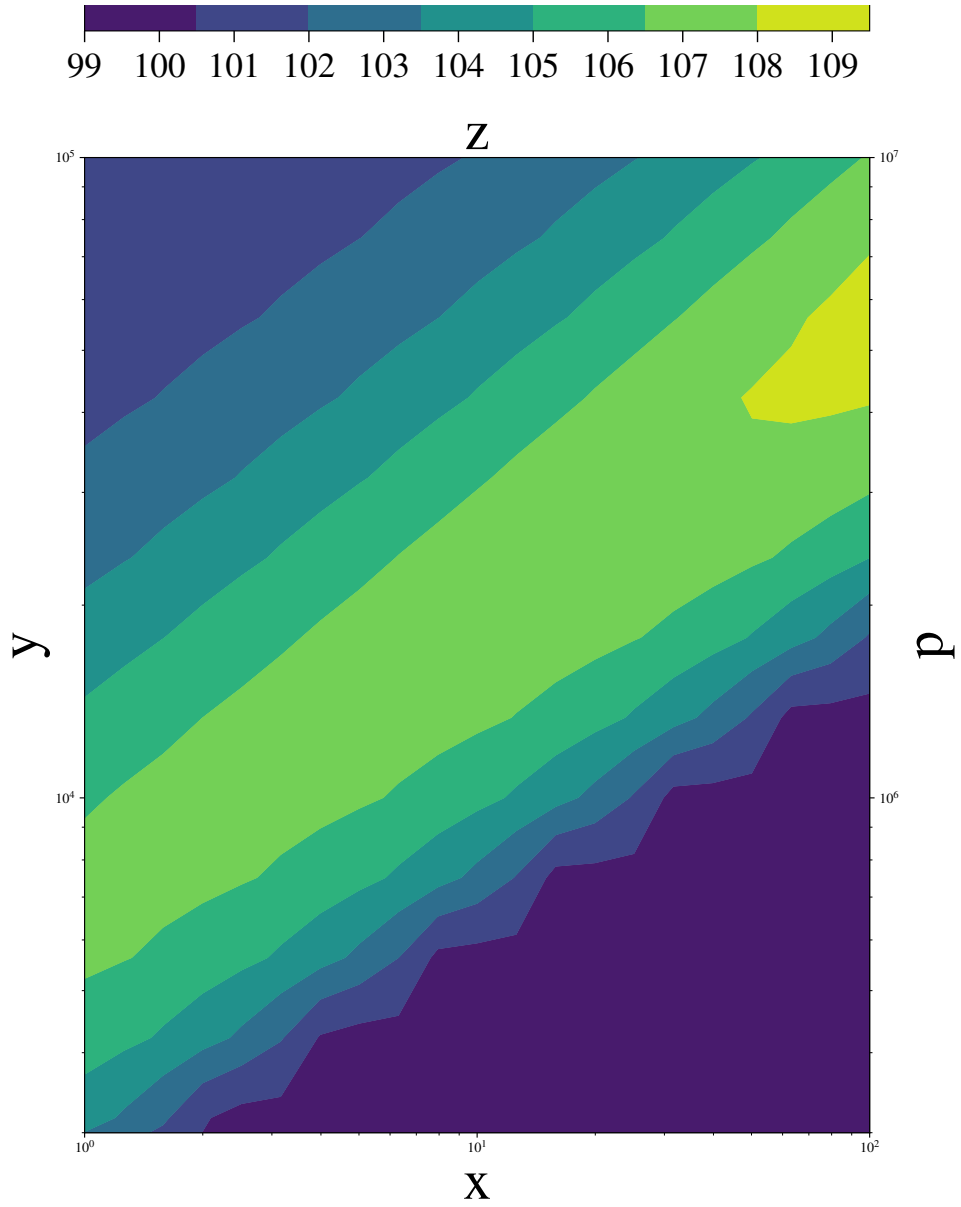
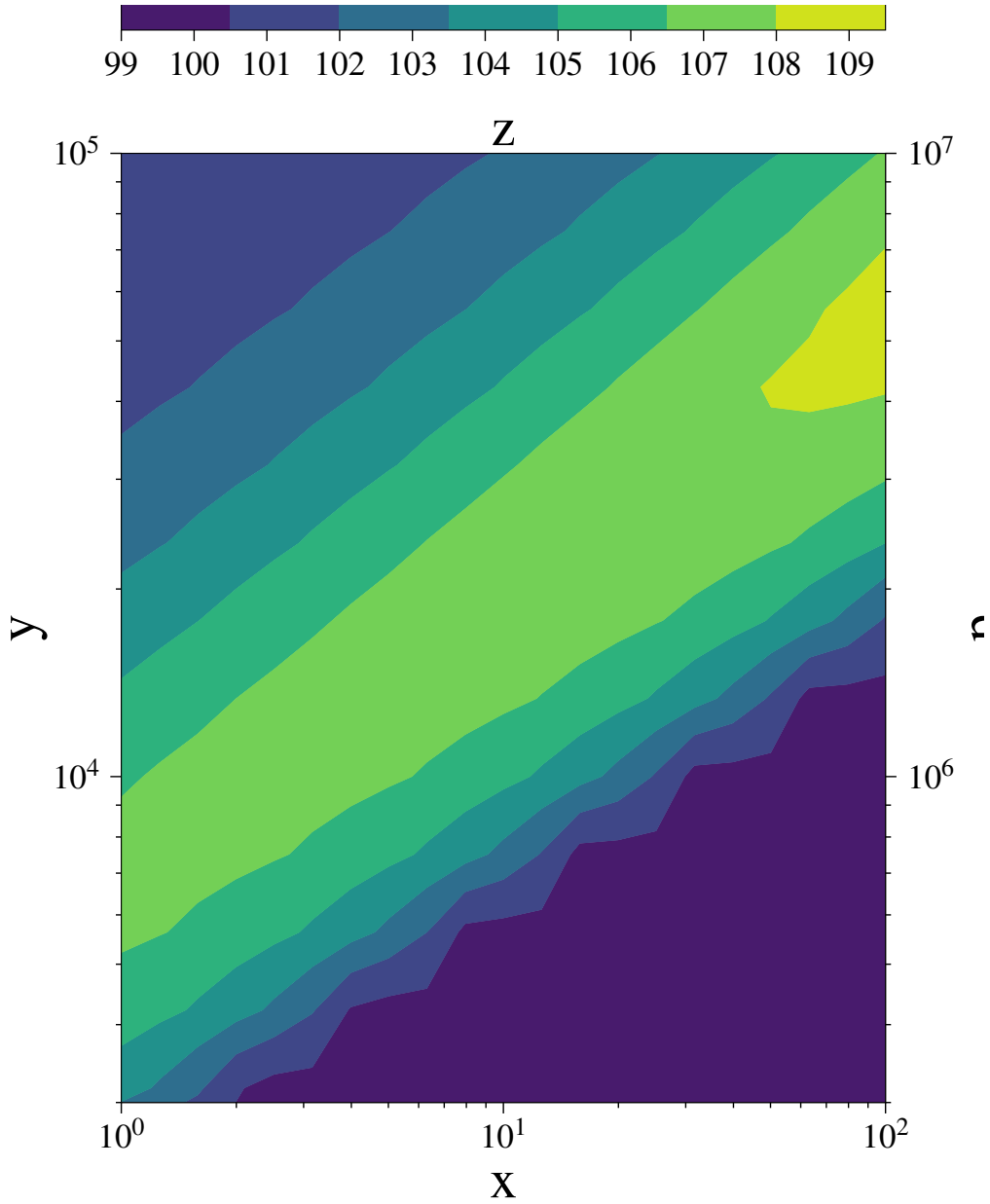


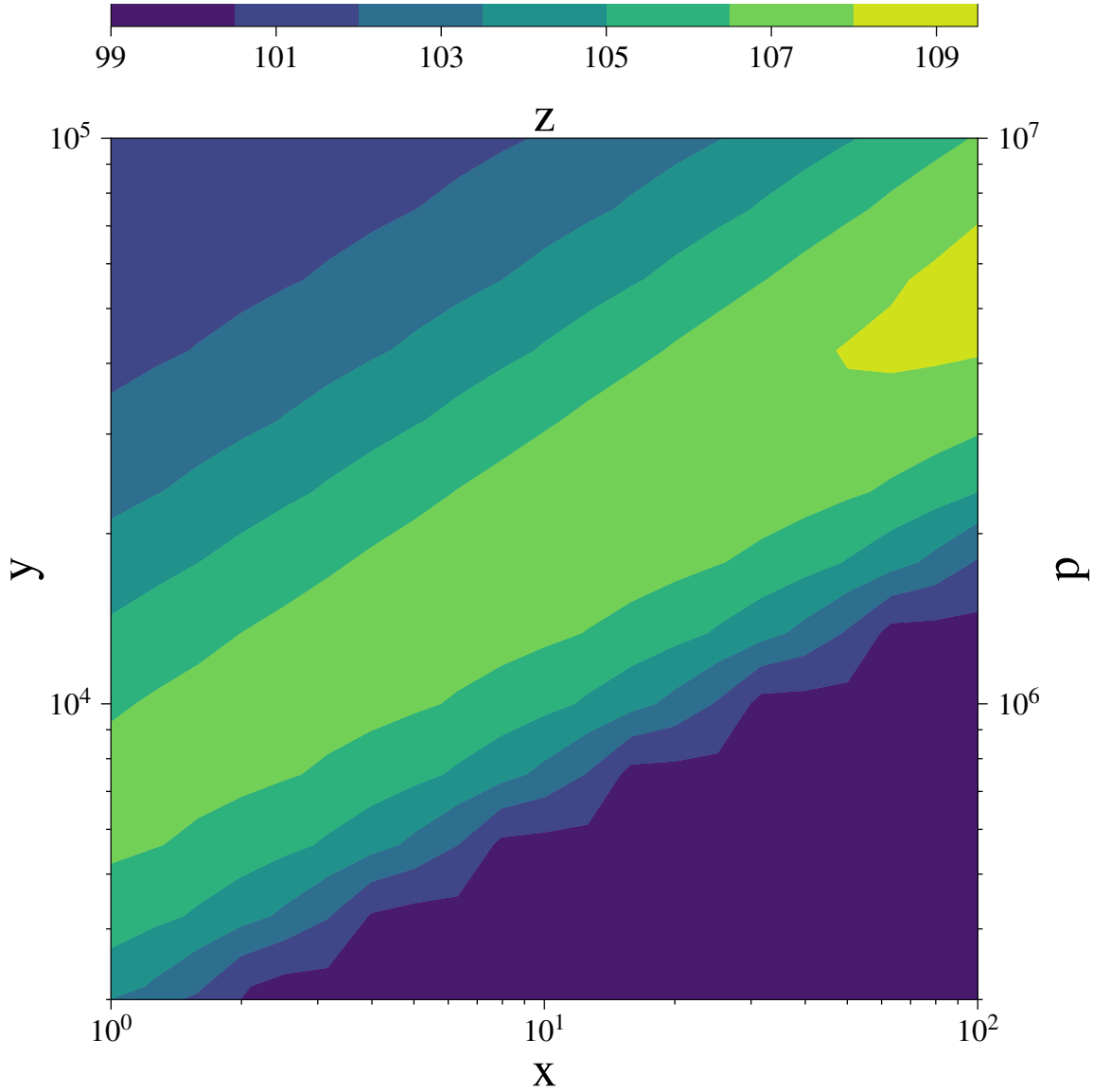
fig.set_size_inches(10., 12.5)

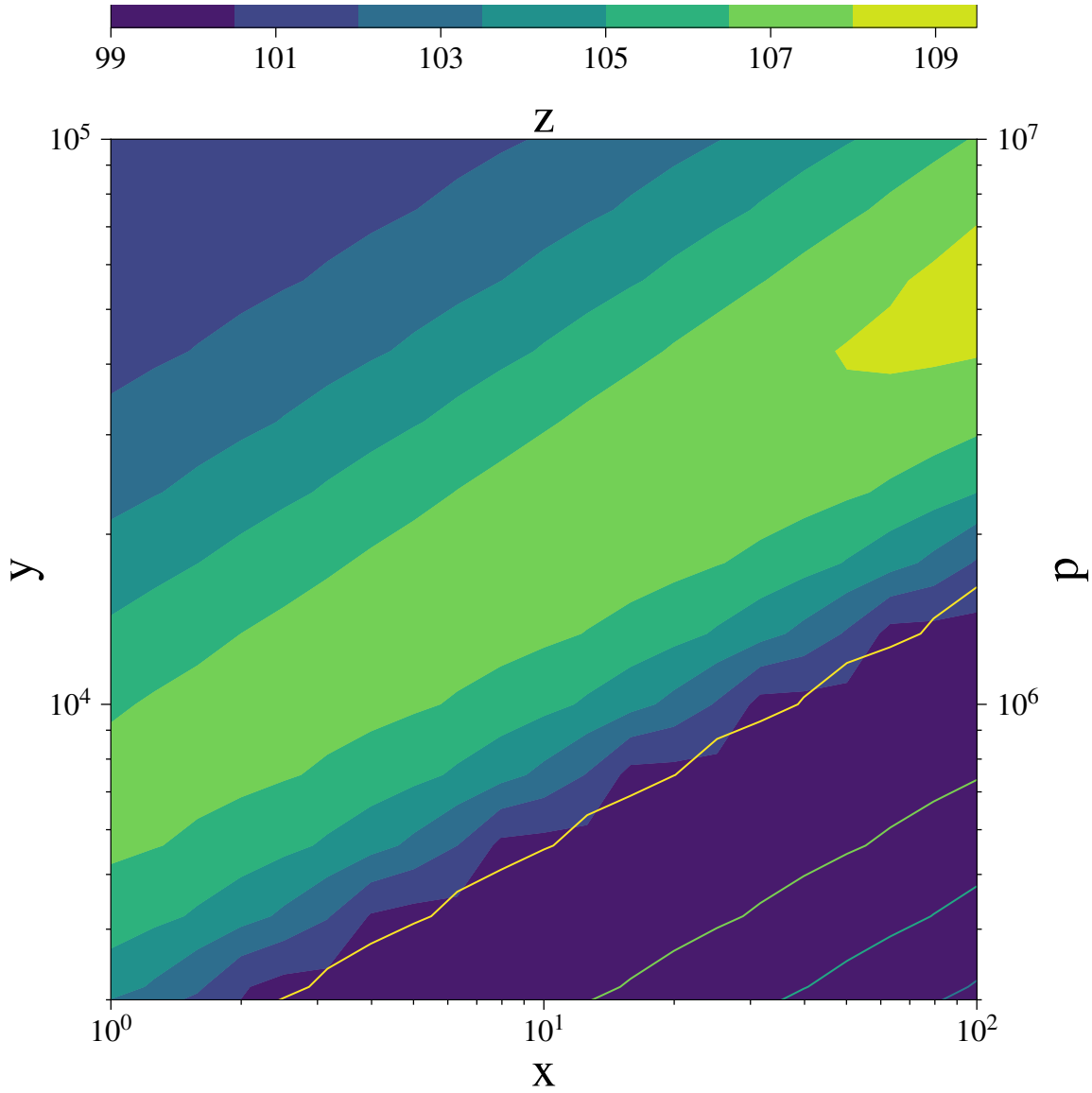
```
...
cbar =
plt.colorbar(CS,cax=ax_cbar,ticks=ticks1,orientation='horizontal')
tick_params(labelsize=25, length=8, width=1.0, which='major',
pad=8)
tick_params(labelsize=25, length=4, width=1.0, which='minor',
pad=8)
...
title('z',fontsize=40)
ax.set_xlabel('x',fontsize=40)
ax.set_ylabel('y',fontsize=40)
ax2.set_ylabel('p',fontsize=40)
```


99
100
101
102
103
104
105
106
107
108
109
z
10^5
10^7
y
p
10^4
10^6
10^0
10^1
10^2
x

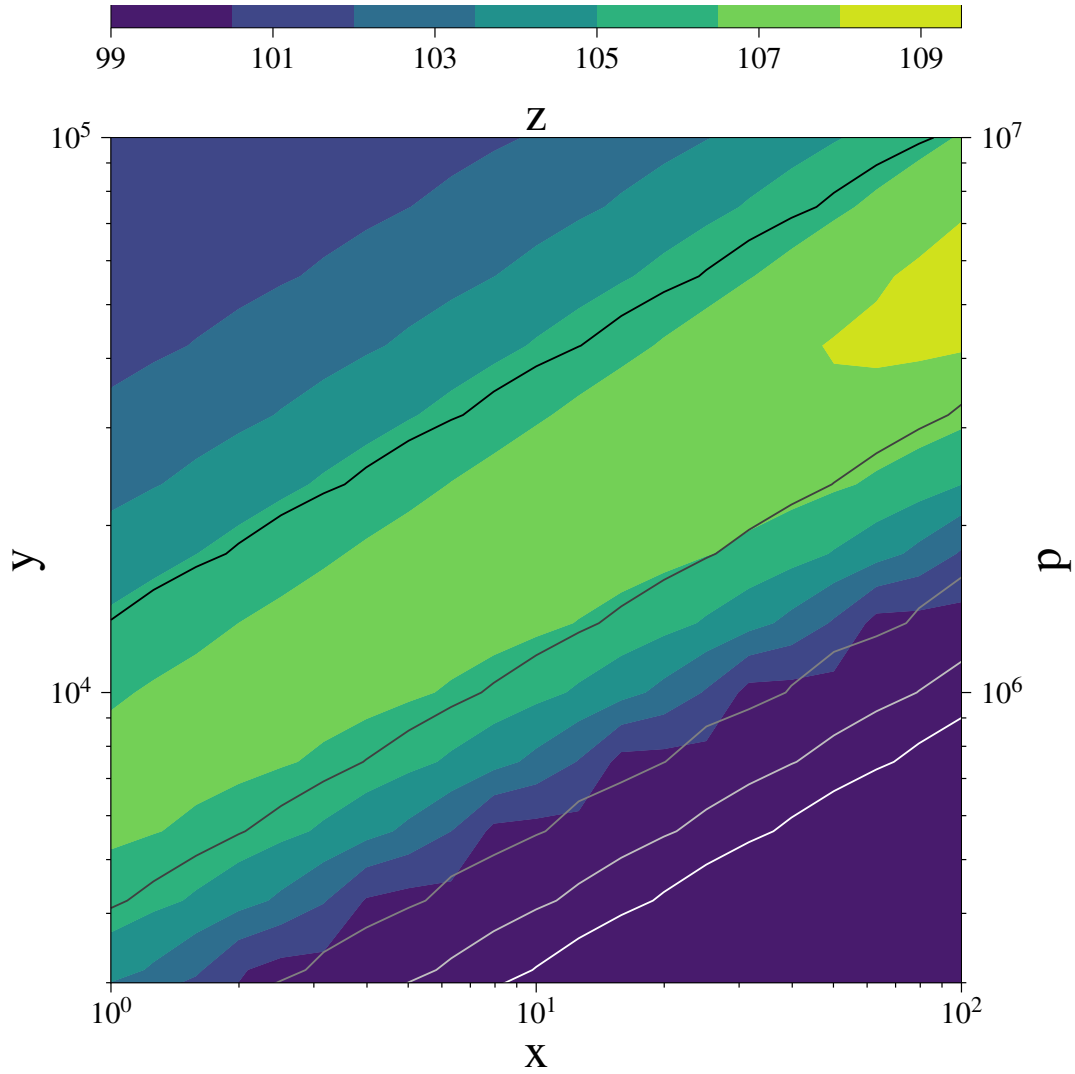
```
ax.tick_params(labelsize=25, length=8, width=1.0, which='major',
pad=8) ax.tick_params(labelsize=25, length=4, width=1.0,
which='minor', pad=8) ...
plt.close()
ax2.tick_params(labelsize=25, length=8, width=1.0, which='major',
pad=8) ax2.tick_params(labelsize=25, length=4, width=1.0,
which='minor', pad=8) ...
plt.close()
```


99 100 101 102 103 104 105 106 107 108 109
Z
10^5
10^7
y
10^4
10^6
10^0
10^1
10^2
X

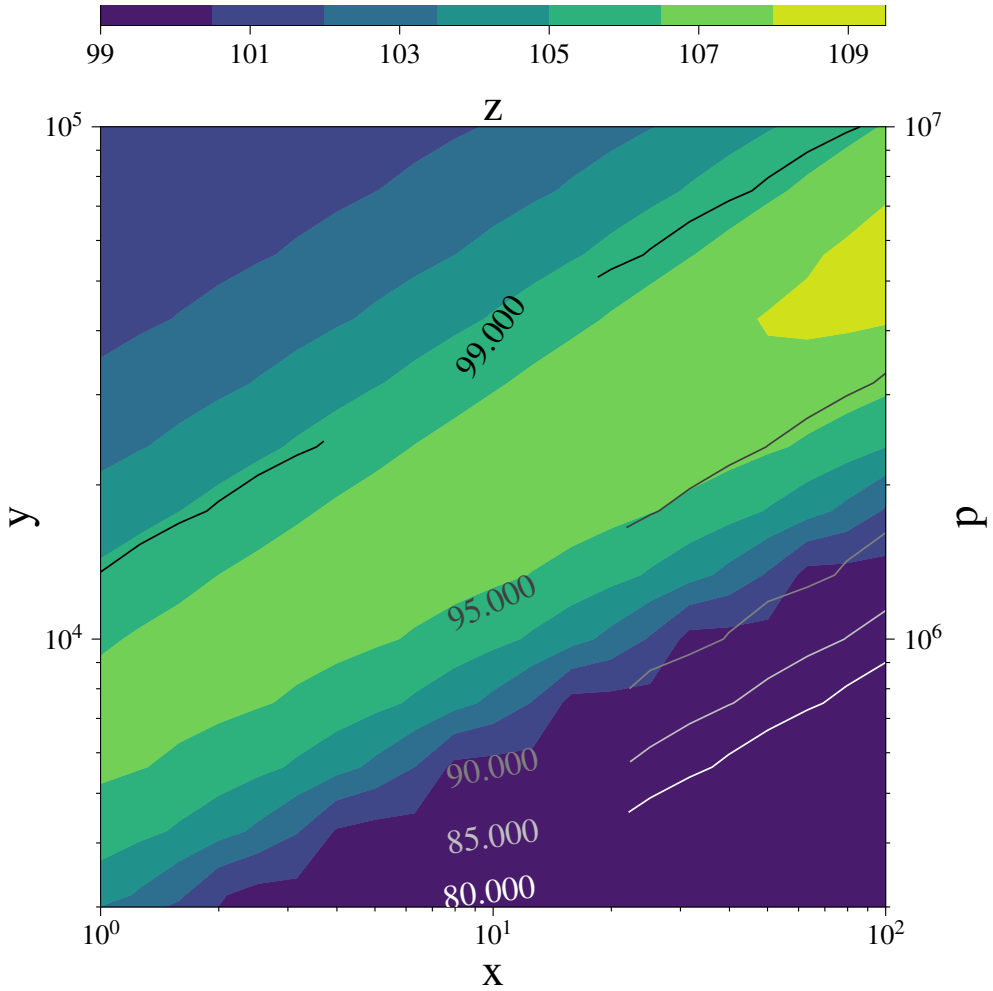

99
101
103
105
107
109
z
10^5
10^7
y
p
10^4
10^6
10^0
10^1
10^2
x



CS1=ax2.contour(x, p, z1)

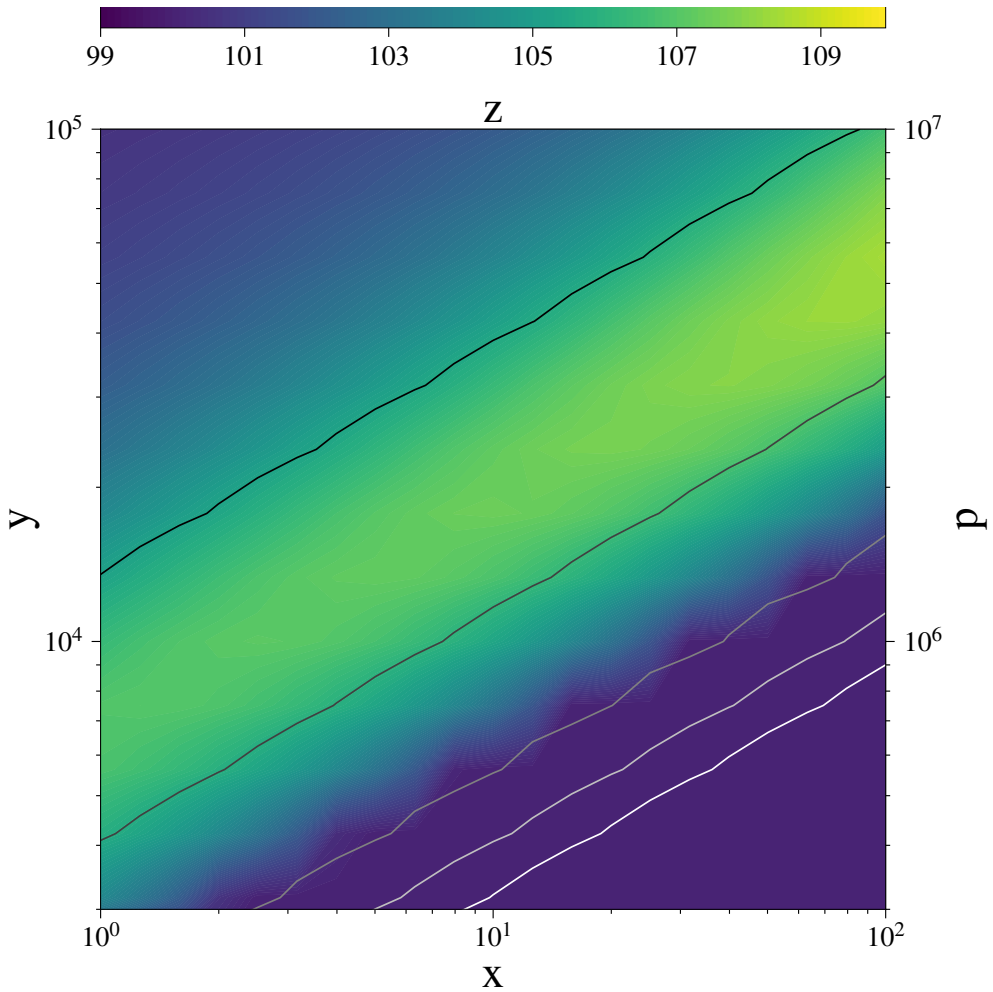


CS1=ax2.contour(x, y*100., z1,levels=levs1,colors=('1', '0.75', '0.50','0.25','0'))

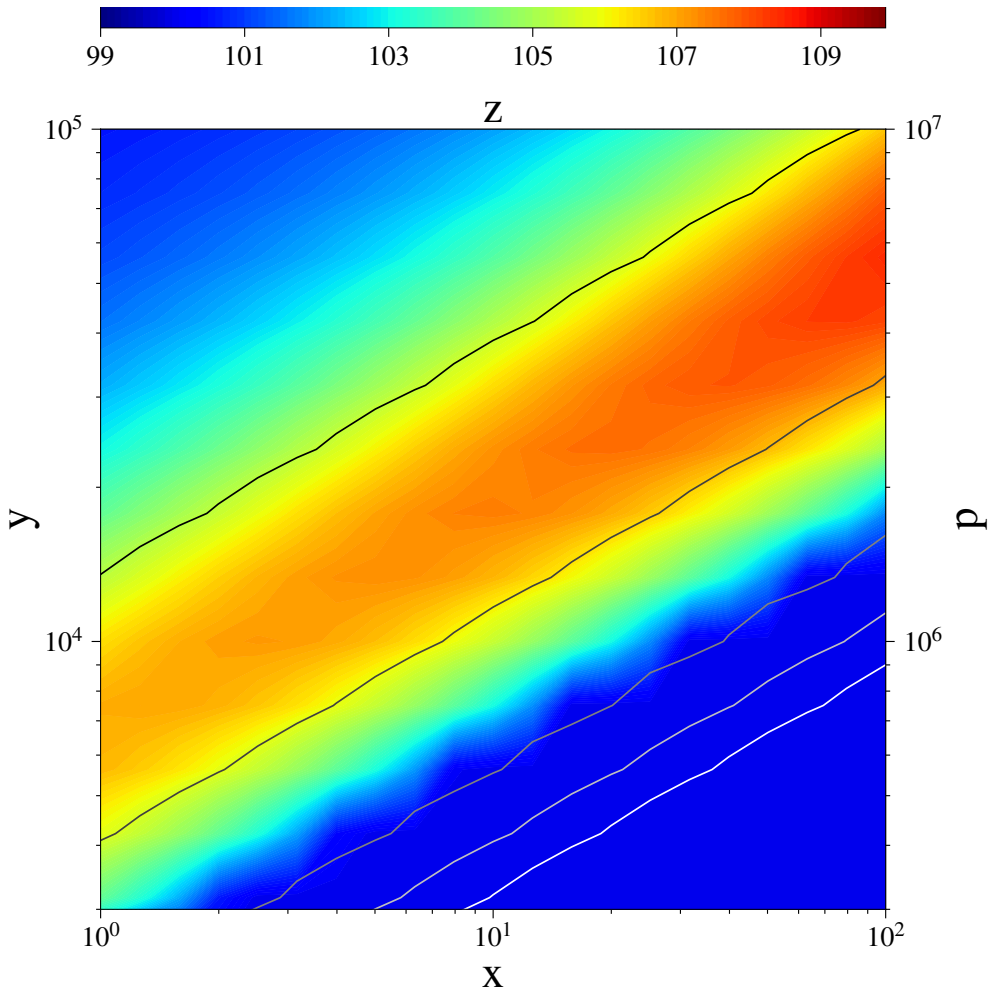


CS1=ax2.contour(x, y*100., z1,levels=levs1,colors=('1', '0.75', '0.50','0.25','0'))

ax2.clabel(CS1, inline=1, fontsize=30)



levmd=np.arange(99.,110.,0.1)
CS=ax.contourf(x, y, z,levels=levmd)



CS=ax.contourf(x, y, z,levels=levmd,cmap='jet')

https://matplotlib.org/users/colormaps.html