



清华大学

Tsinghua University

Several errors occurred during simulation

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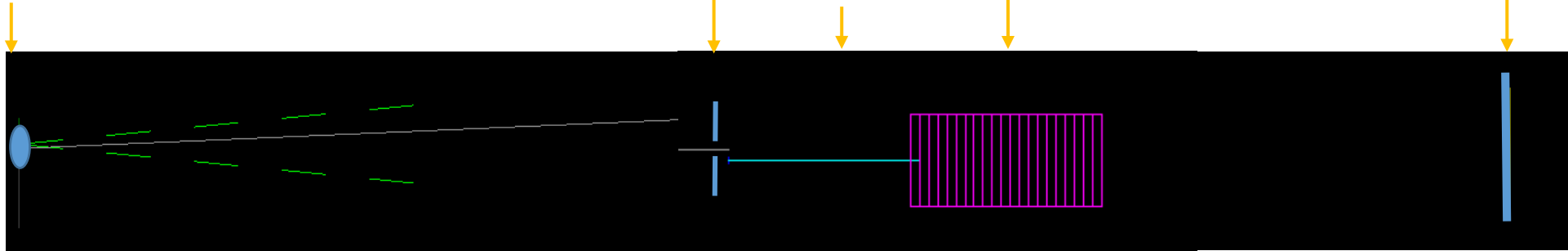
Point source

Slit

M1

M2

CCD



Y-Z plane

Component coordinates:

Source_pt(0 ,0 ,0)

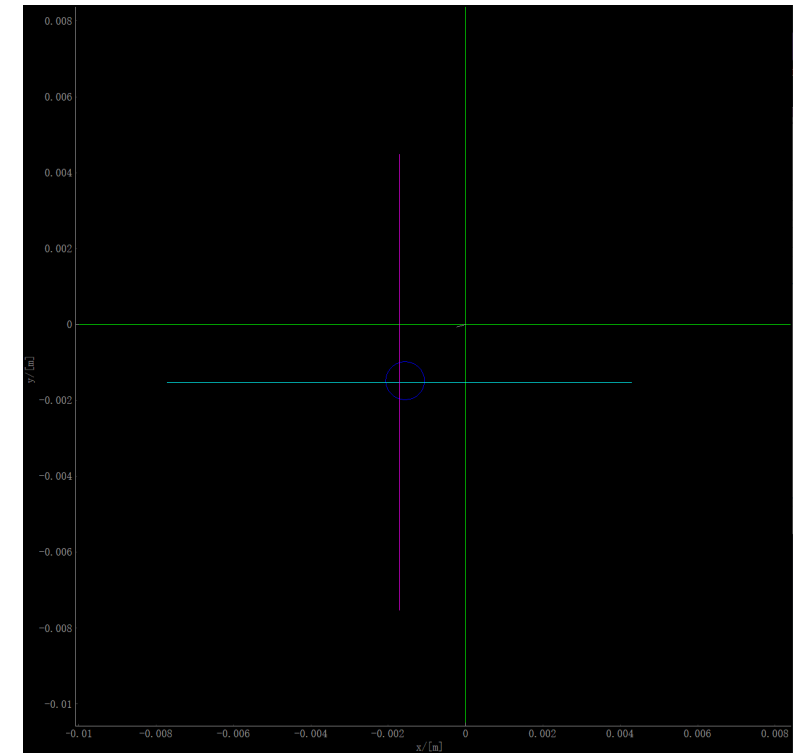
Slit(-0.001566, -0.0014814, 0.194)

M1(0, -0.0015272, 0.2)

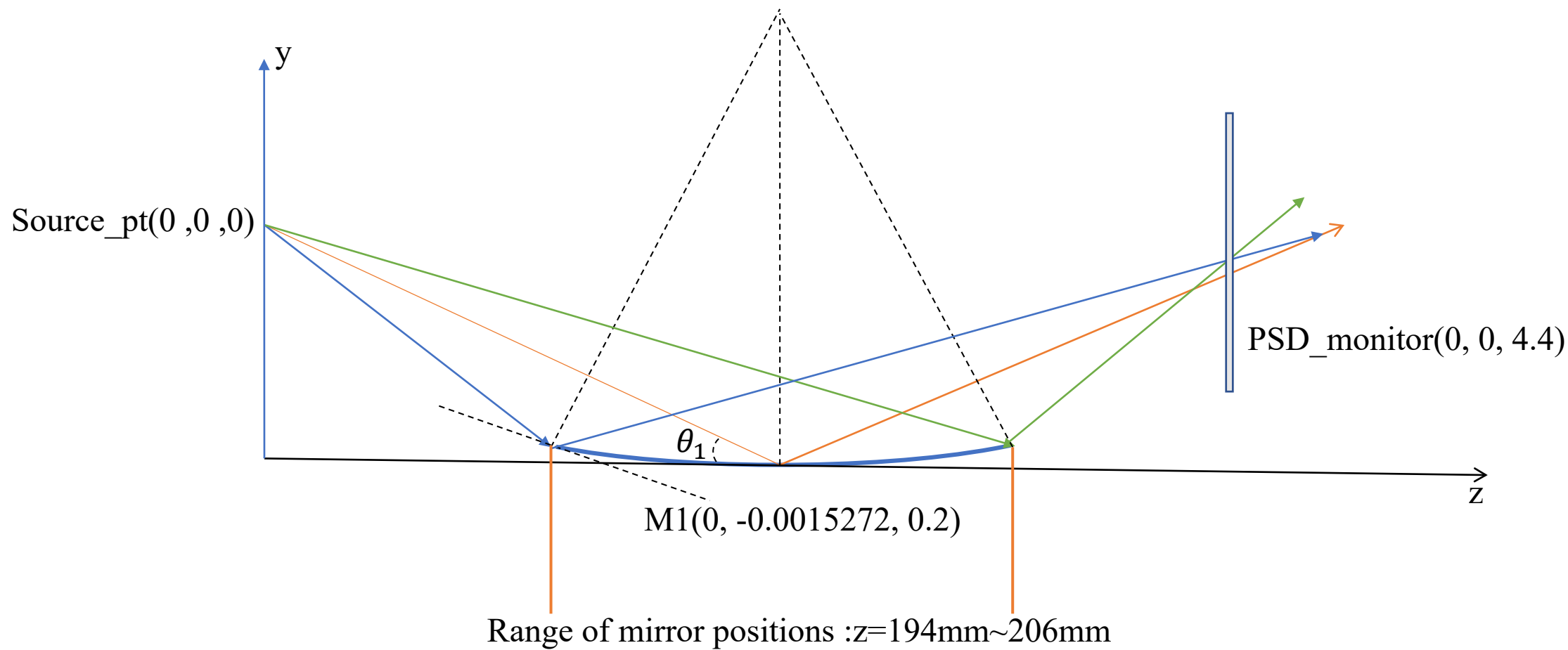
M2(-0.0017113, 0, 0.212)

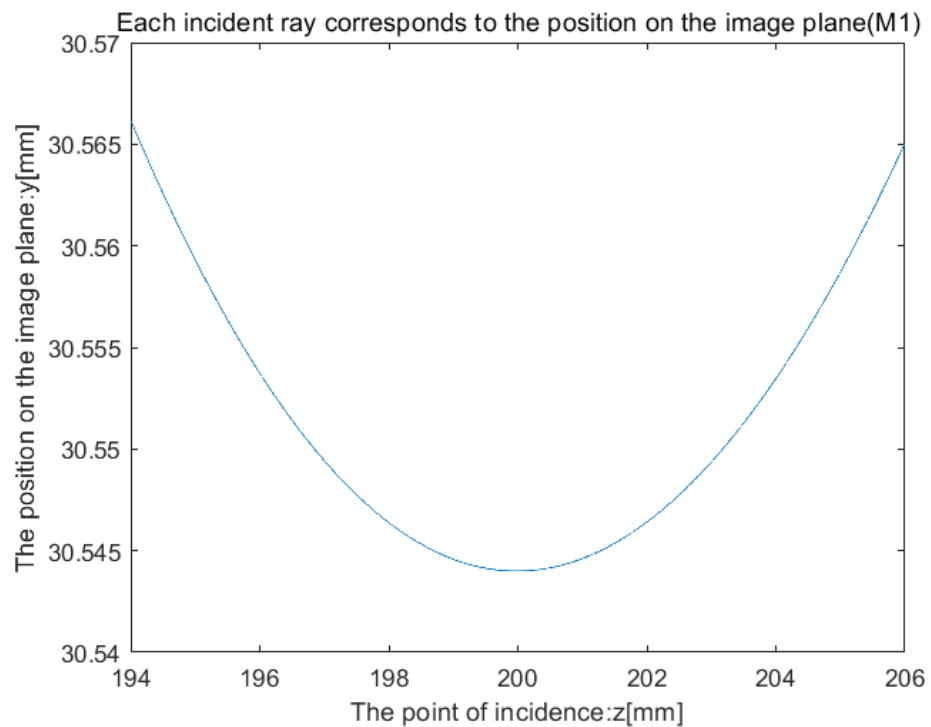
PSD_monitor(0, 0, 4.4)

length of mirror	12mm
Width of mirror	12mm

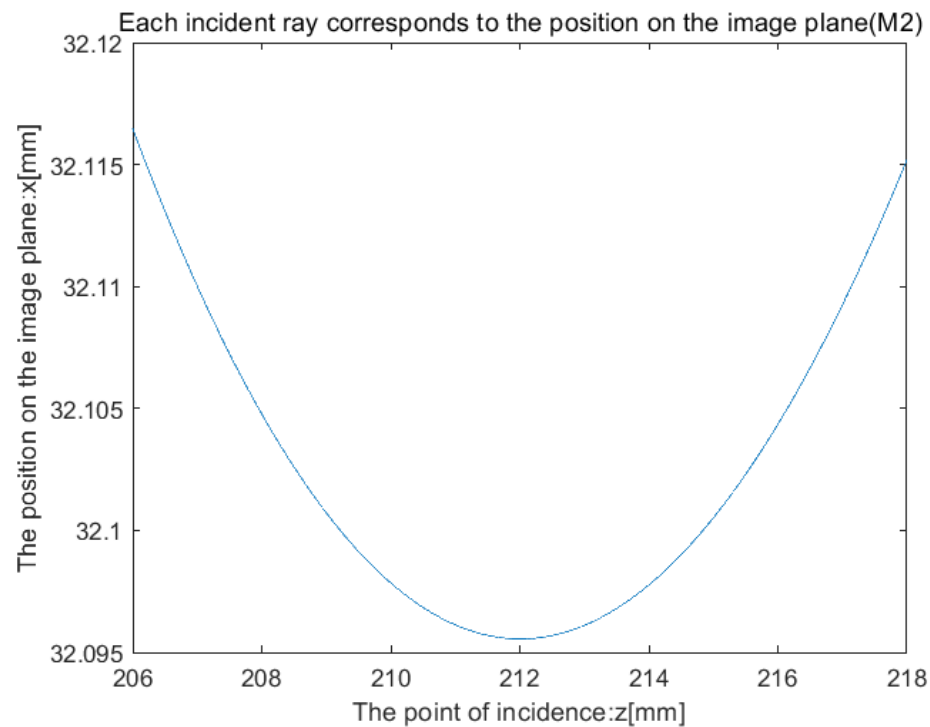


X-Y plane





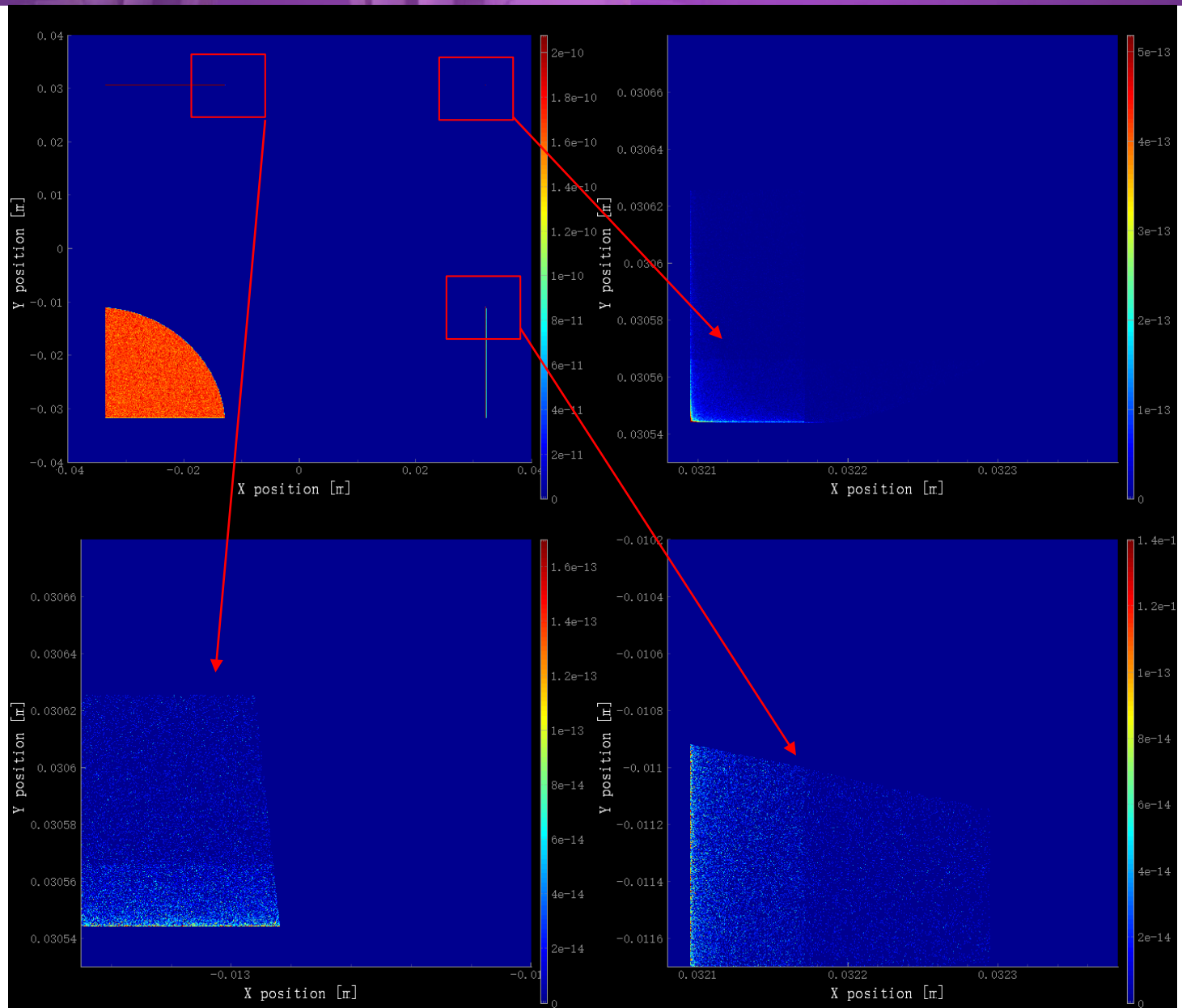
$$y \in [30.5440 \sim 30.5662]$$



$$x \in [32.0956 \sim 32.1165]$$

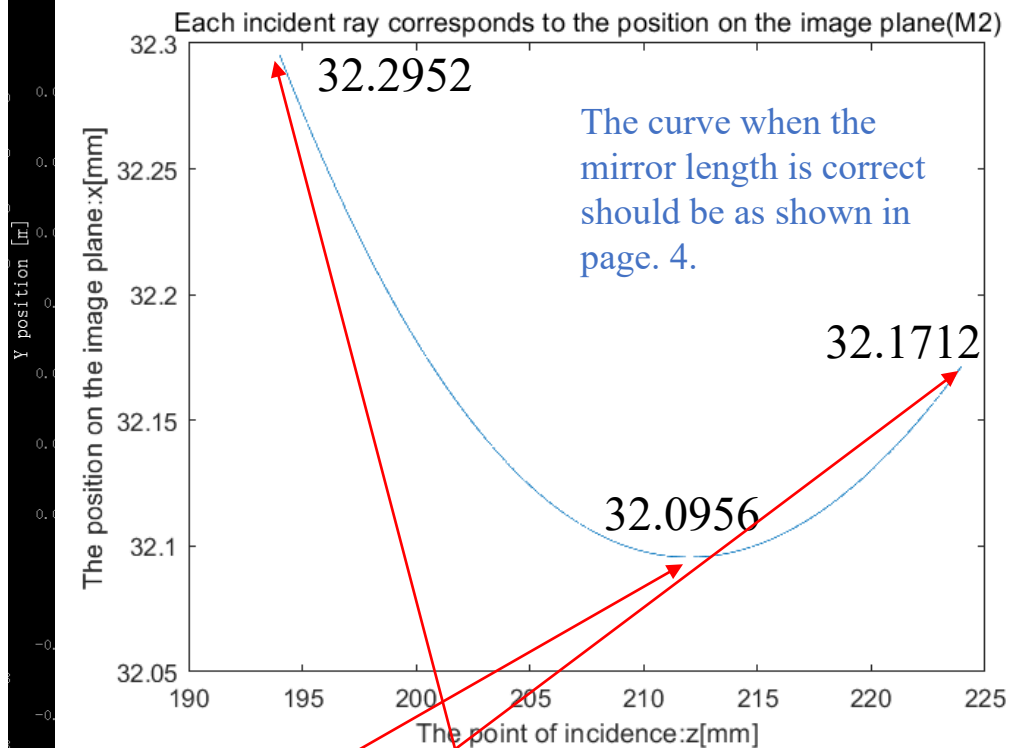
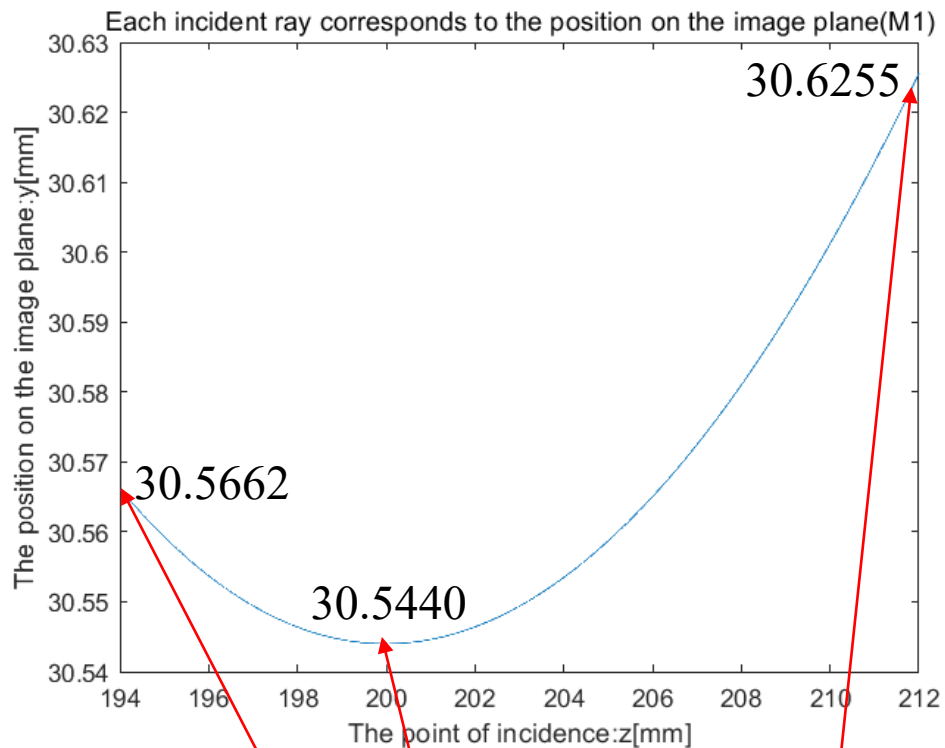
The position of the image plane corresponding to the rays incident on different positions of the mirror. Based on geometric optics calculations.

The program parses the wrong mirror length



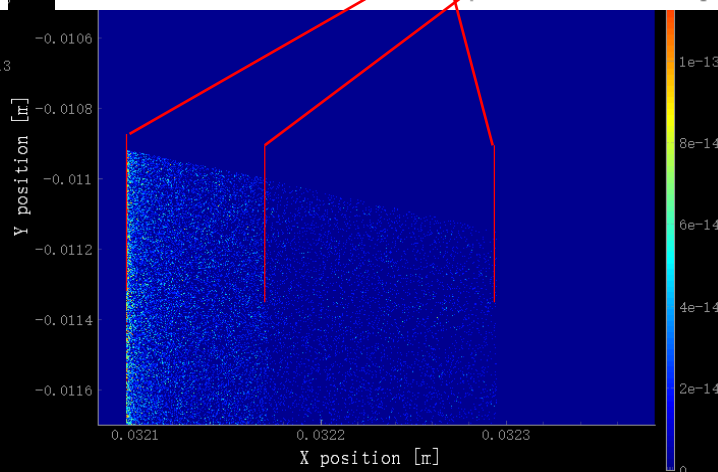
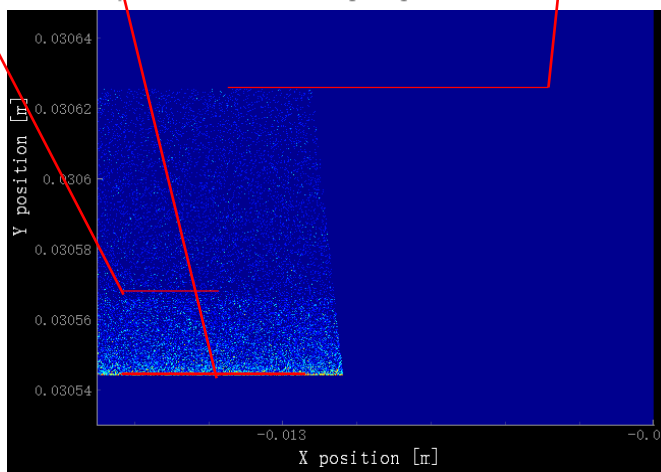


The program parses the wrong mirror length



(M1) Range of mirror positions considered by the program: [194,212] ✗

We need : [194,206] ✓



(M2) Range of mirror positions considered by the program: [194,224] ✗

We need : [194,218] ✓



```
C:\mcxtrace-1.7\lib\tools\Python\mxrun\..\mccodelib\..\..\..\optics\Mirror_elliptic.comp:54:3: error: unknown type name 't_Reflec'; did you mean 't_Table'?  
  t_Table re, CONSTANT, COATING_UNDEFINED;  
  ~~~~~
```

```
C:\mcxtrace-1.7\lib\tools\Python\mxrun\..\mccodelib\..\..\..\optics\Mirror_elliptic.comp: In function 'mcraytrace':  
C:\mcxtrace-1.7\lib\tools\Python\mxrun\..\mccodelib\..\..\..\optics\Mirror_elliptic.comp:96:3: error: 'zt' undeclared (first use in this function); did you mean 'mt'?  
  kxn=kx/k;kyn=ky/k;kzn=kz/k;  
  ~~~~~
```

```
  mt  
C:\mcxtrace-1.7\lib\tools\Python\mxrun\..\mccodelib\..\..\..\optics\Mirror_elliptic.comp:96:8: error: 'z_offset' undeclared (first use in this function); did you mean '_off_t'?  
  kxn=kx/k;kyn=ky/k;kzn=kz/k;  
  ~~~~~
```

```
  _off_t  
C:\mcxtrace-1.7\lib\tools\Python\mxrun\..\mccodelib\..\..\..\optics\Mirror_elliptic.comp:99:3: error: 'xt' undeclared (first use in this function); did you mean 'zt'?  
  /*the reference point is on the ellipsoid surface such that the ellipsoid mass lies on the positive  
  ~~~~~
```

```
  zt  
C:\mcxtrace-1.7\lib\tools\Python\mxrun\..\mccodelib\..\..\..\optics\Mirror_elliptic.comp:129:17: warning: implicit declaration of function 'reflecq' [-Wimplicit-function-declaration]  
  /*adjust weight of ray*/  
  ~~~~~
```

```
C:\mcxtrace-1.7\lib\tools\Python\mxrun\..\mccodelib\..\..\..\optics\Mirror_elliptic.comp: In function 'mcdisplay':  
C:\mcxtrace-1.7\lib\tools\Python\mxrun\..\mccodelib\..\..\..\optics\Mirror_elliptic.comp:143:7: error: 'xwidth' undeclared (first use in this function)  
  double t,xx,yy,zz,xx0,yy0,zz0,xwidth;  
  ~~~~~
```



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Thank you!