



实例1：标量数据可视化

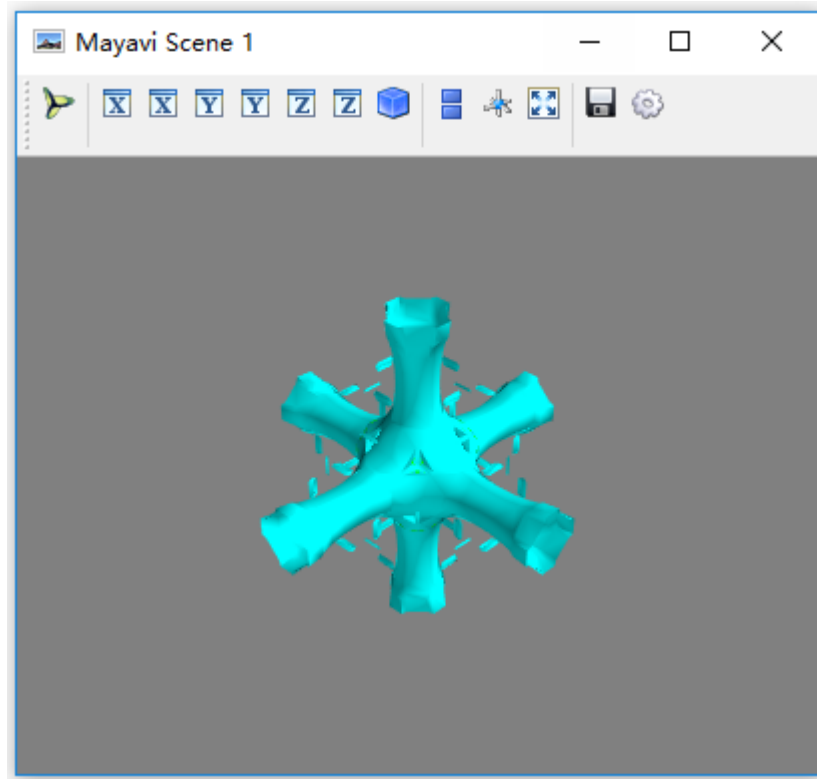
生成标量数据

```
import numpy as np
x, y, z = np.ogrid[-10:10:20j, -10:10:20j, -10:10:20j]
s = np.sin(x*y*z)/(x*y*z)

from mayavi import mlab
mlab.contour3d(s)
mlab.show()
```

等值面绘制

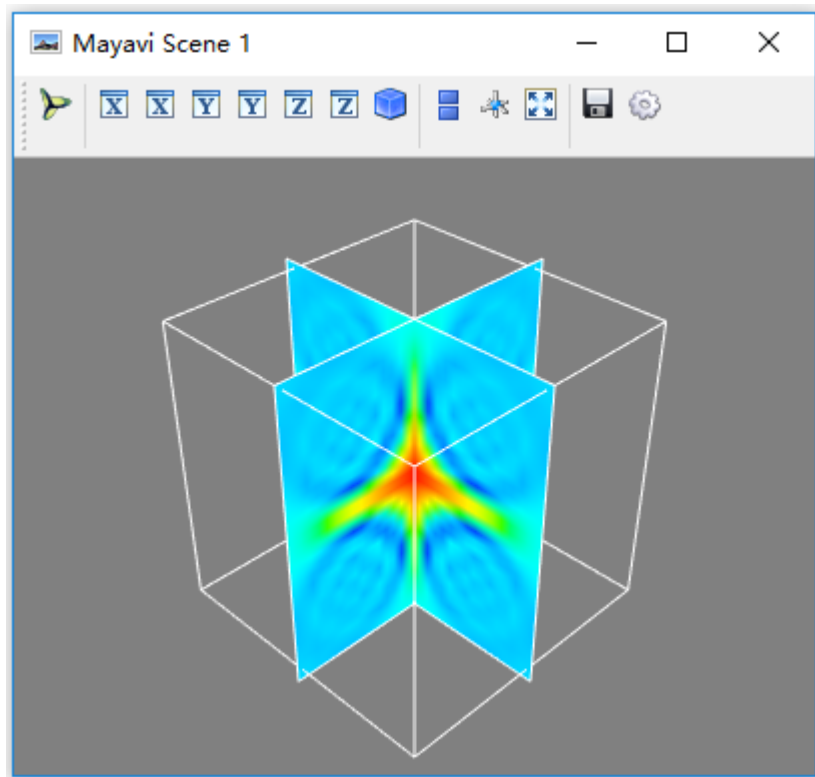
`mlab.contour3d(s)`



切平面

```
from mayavi import mlab
from mayavi.tools import pipeline
mlab.pipeline.image_plane_widget(mlab.pipeline.scalar_field(s),
                                plane_orientation='x_axes',
                                slice_index=10,
                                )
mlab.pipeline.image_plane_widget(mlab.pipeline.scalar_field(s),
                                plane_orientation='y_axes',
                                slice_index=10,
                                )
mlab.outline()
```

切平面



复合观测方法

```
from mayavi import mlab
from mayavi.tools import pipeline
src = mlab.pipeline.scalar_field(s)|
mlab.pipeline.iso_surface(src, contours=[s.min()+0.1*s.ptp(), ], opacity=0.1)
mlab.pipeline.iso_surface(src, contours=[s.max()-0.1*s.ptp(), ])
mlab.pipeline.image_plane_widget(src,
                                plane_orientation='z_axes',
                                slice_index=10,
                                )
```

复合观测方法

`mlab.pipeline.scalar_cut_plane`

复合观测方法

