

Schrodinger Equation

Dependencies

```
python3 --version
```

```
>>> 3.5.0 and above
```

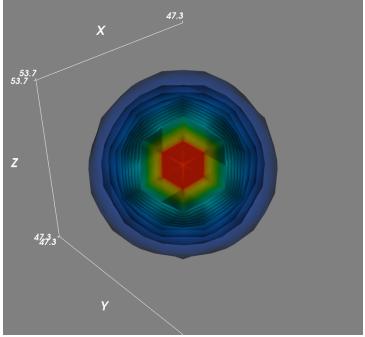
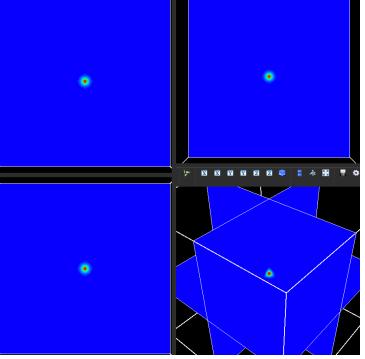
```
pip3 install --upgrade numpy  
pip3 install --upgrade scipy  
pip3 install --upgrade mayavi  
pip3 install --upgrade PyQt5
```

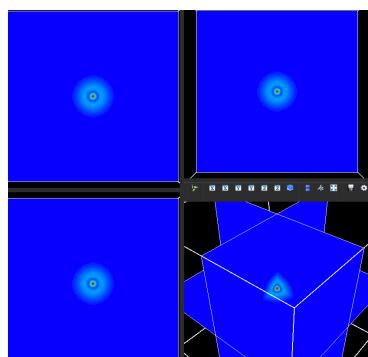
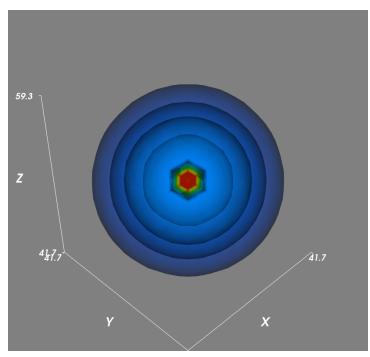
Orbital Visualisation

n: Principal Quantum Number

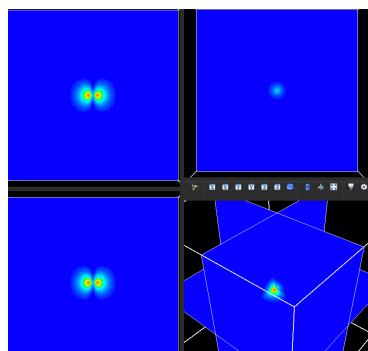
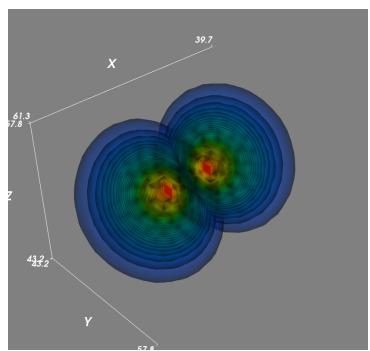
l: Angular Momentum Quantum Number

m: Magnetic Quantum Number

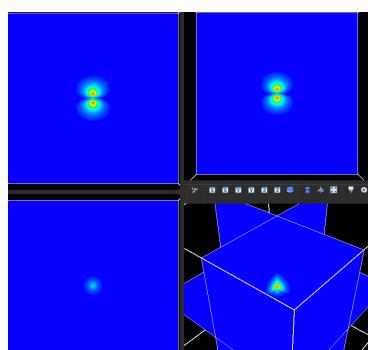
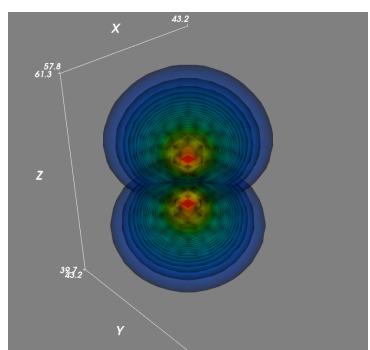
n	l	m	Orbital	3D View	Section View
1	0	0	1s		
2	0	0	2s		



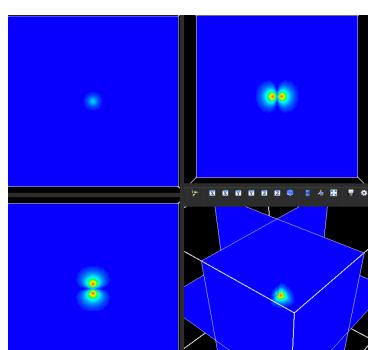
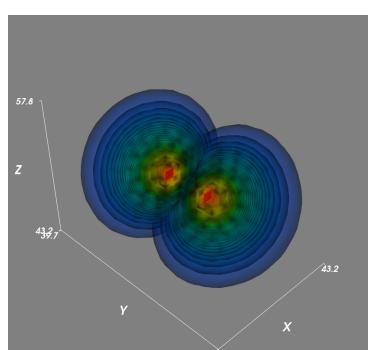
2 1 1 $2p_X$



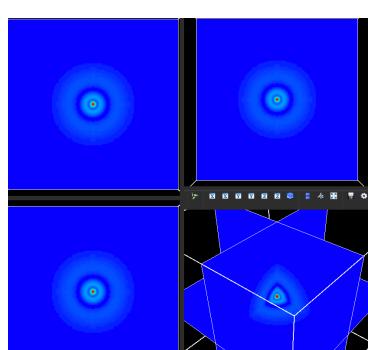
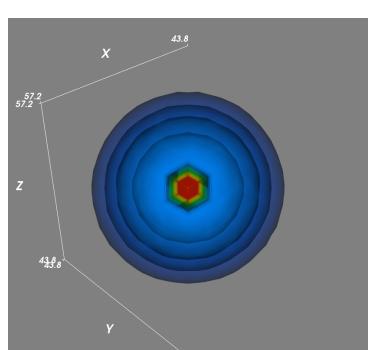
2 1 0 $2p_Z$



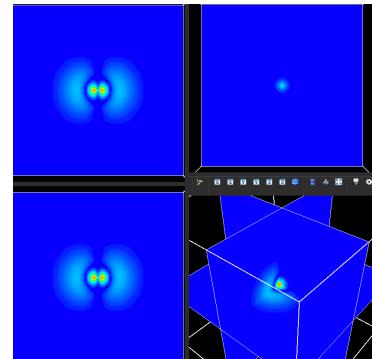
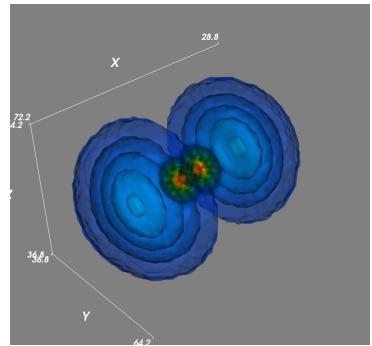
2 1 -1 $2p_y$



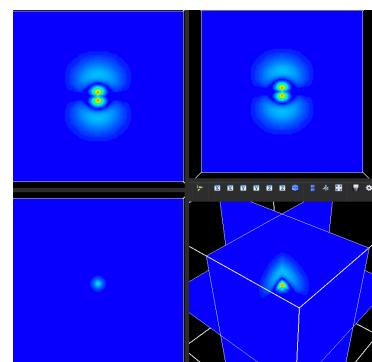
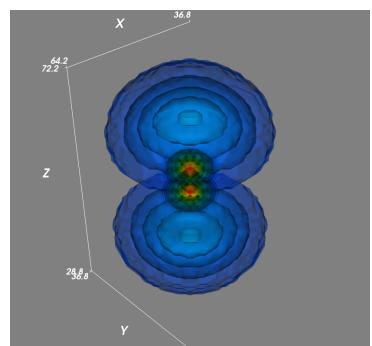
3 0 0 $3s$



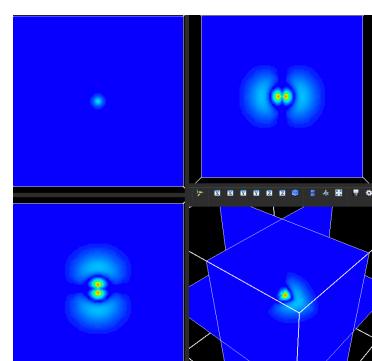
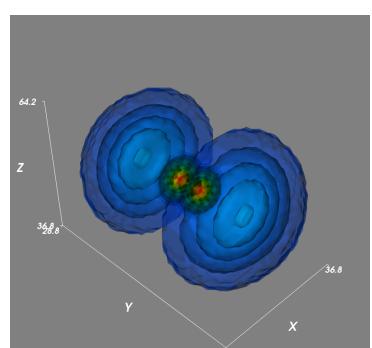
3 1 1 $3p_x$



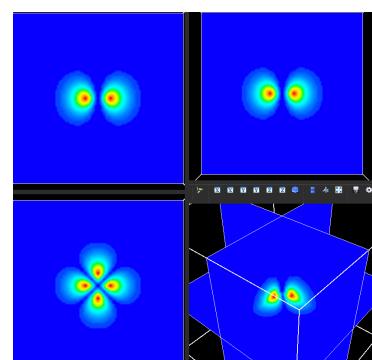
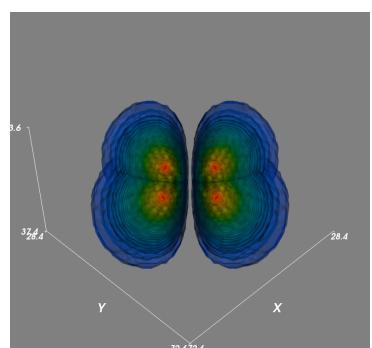
3 1 0 $3p_z$



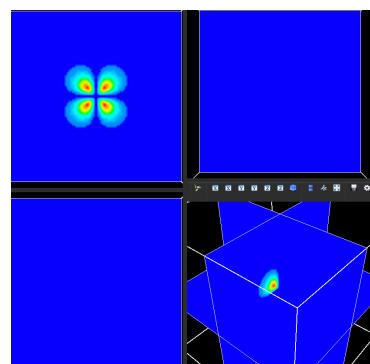
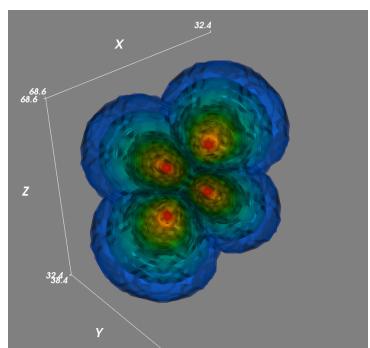
3 1 -1 $3p_y$



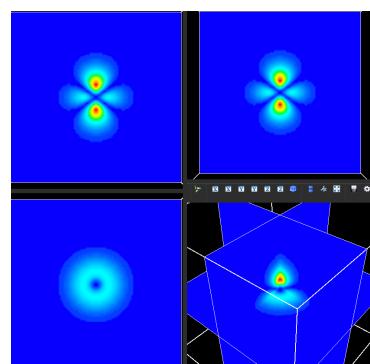
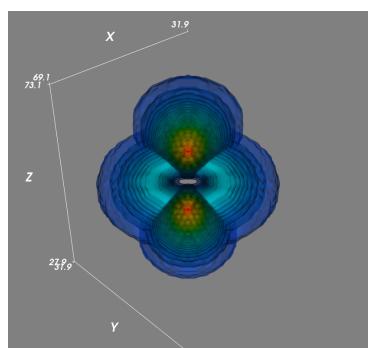
3 2 2 $3d_{x^2-y^2}$



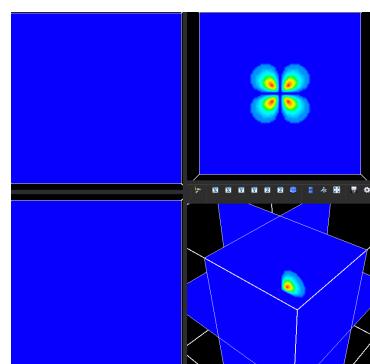
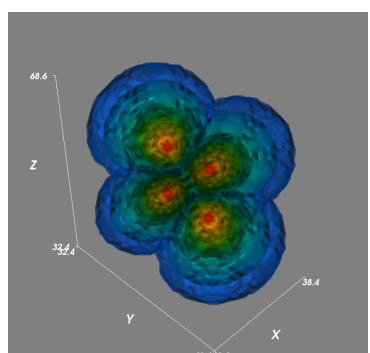
3 2 1 $3d_{yz}$



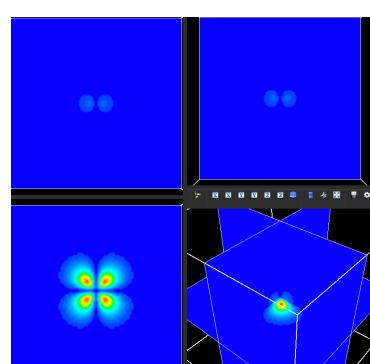
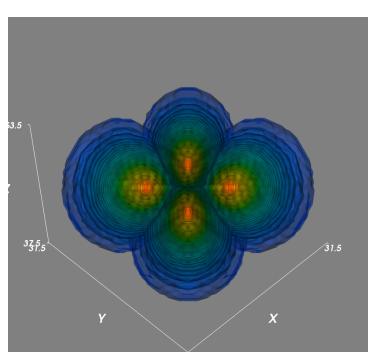
3 2 0 $3d_{z^2}$



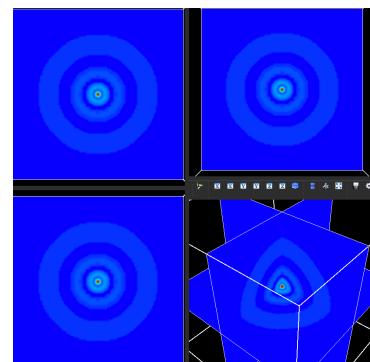
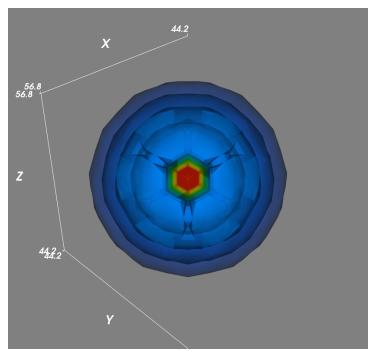
3 2 -1 $3d_{xz}$



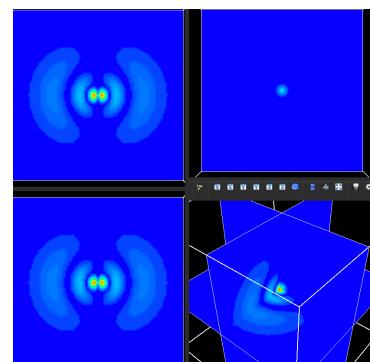
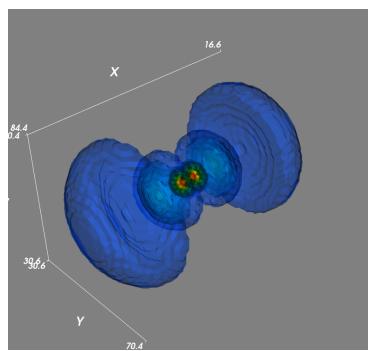
3 2 -2 $3d_{xy}$



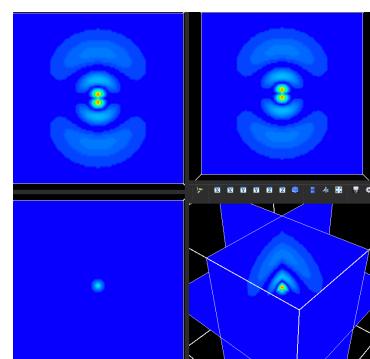
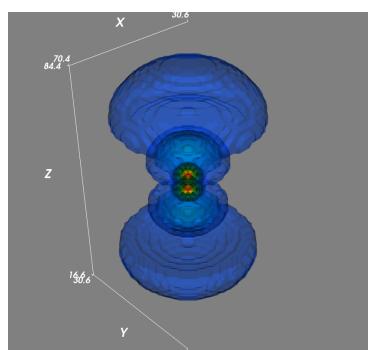
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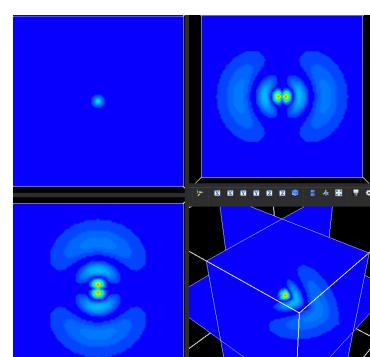
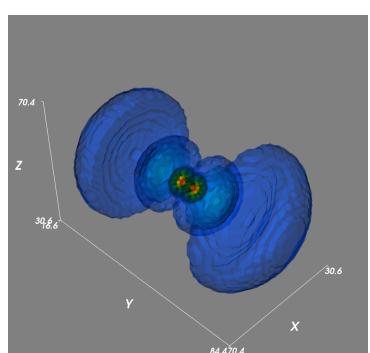
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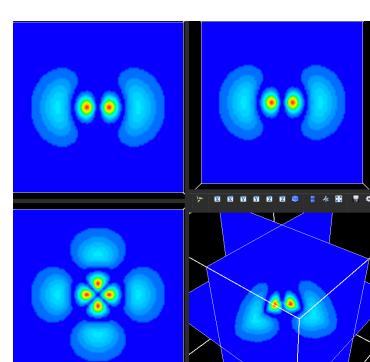
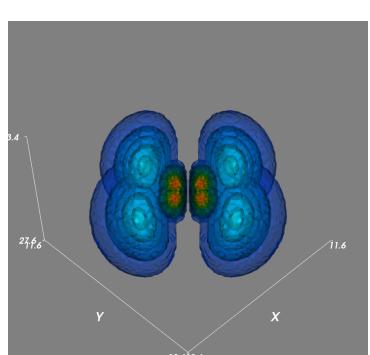
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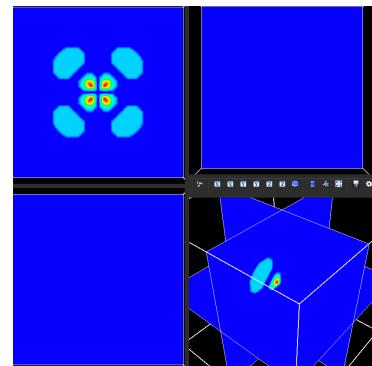
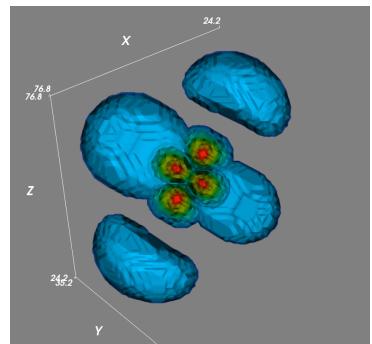
4 1 -1 4p_y



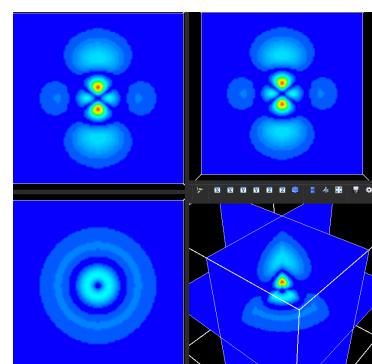
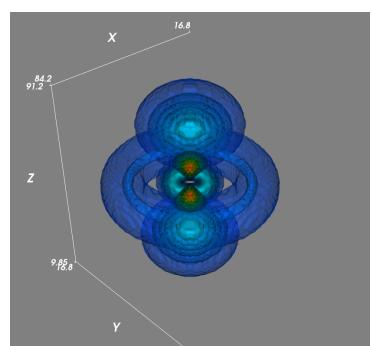
4 2 2 4d_{x^2-y^2}



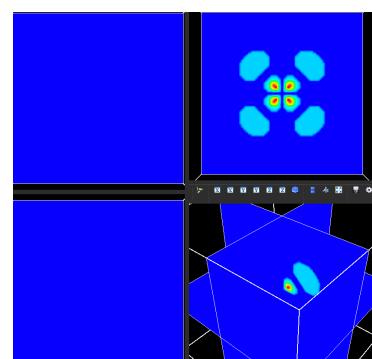
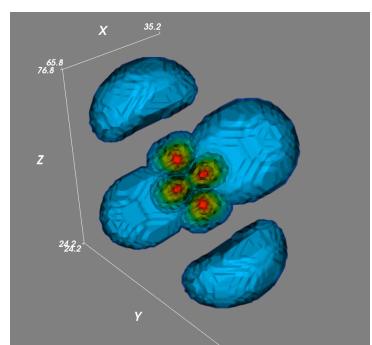
4 2 1 $4d_{yz}$



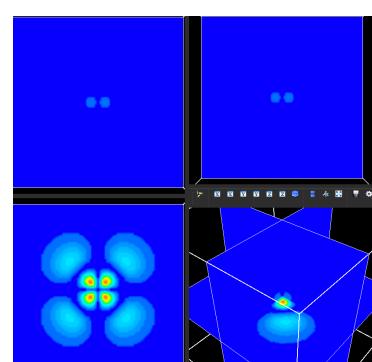
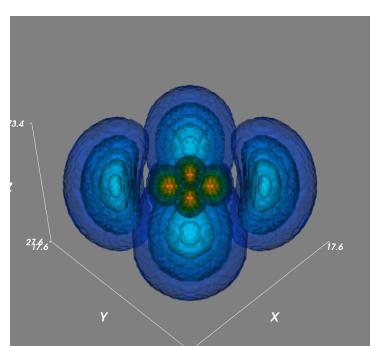
4 2 0 $4d_{z^2}$



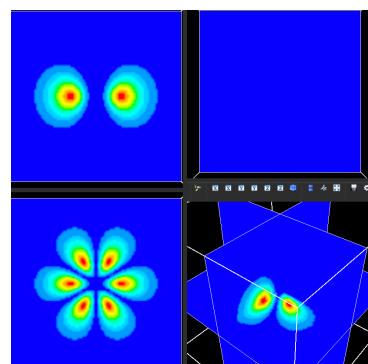
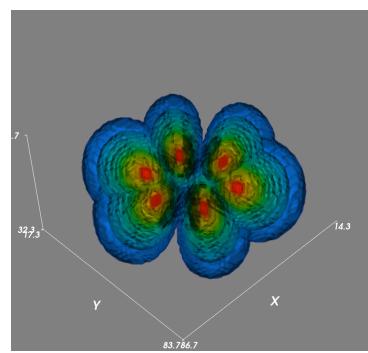
4 2 -1 $4d_{xz}$



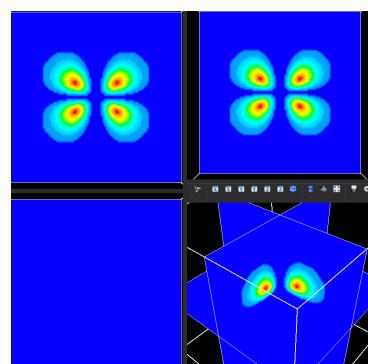
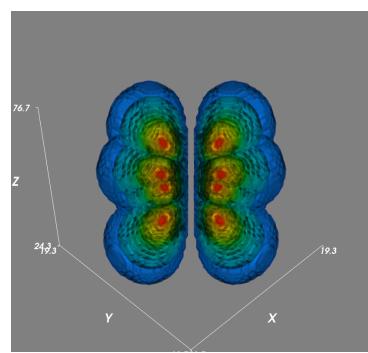
4 2 -2 $4d_{xy}$



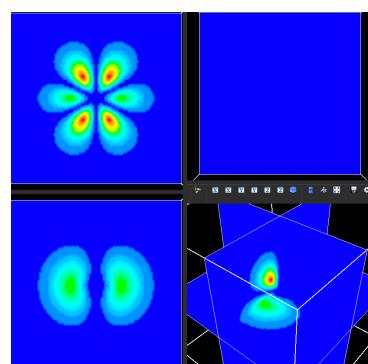
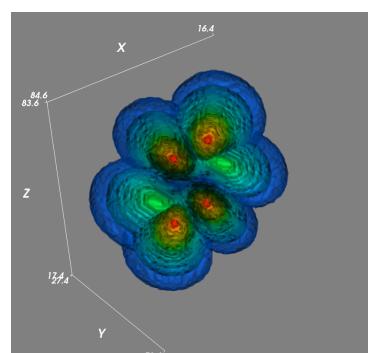
4 3 3 $4f_{y(3x^2-y^2)}$



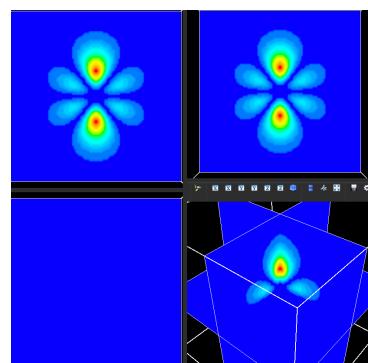
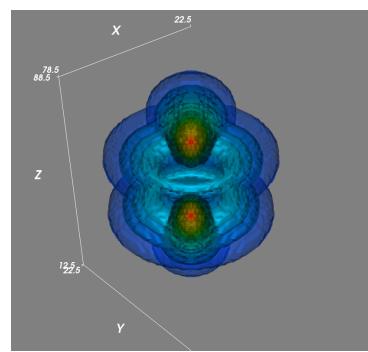
4 3 2 $4f_{z(x^2-y^2)}$



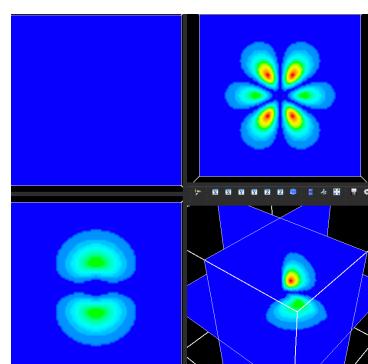
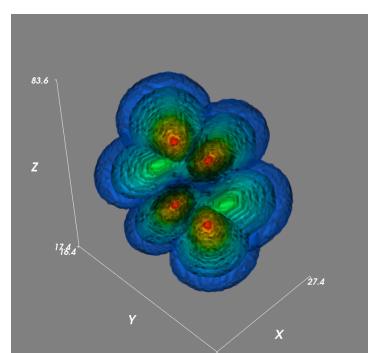
4 3 1 $4f_{yz^2}$



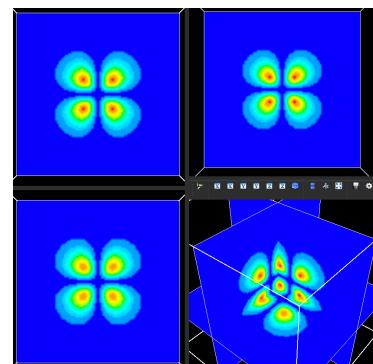
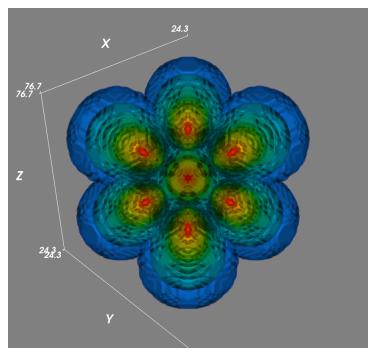
4 3 0 $4f_{z^3}$



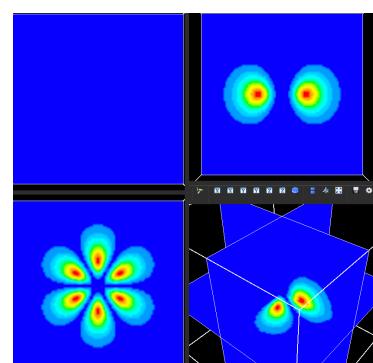
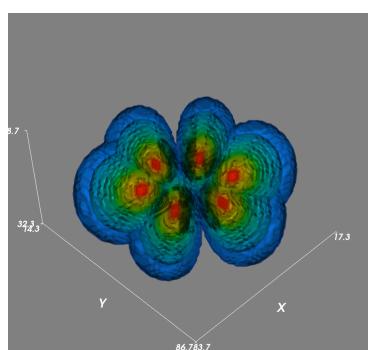
4 3 -1 $4f_{xz^2}$



4 3 -2 4f_{xyz}



$$4 \quad 3 \quad -3 \quad 4f_{x(x^2-3y^2)}$$



Created by Huang He (Mark) | 15 MAR 2020