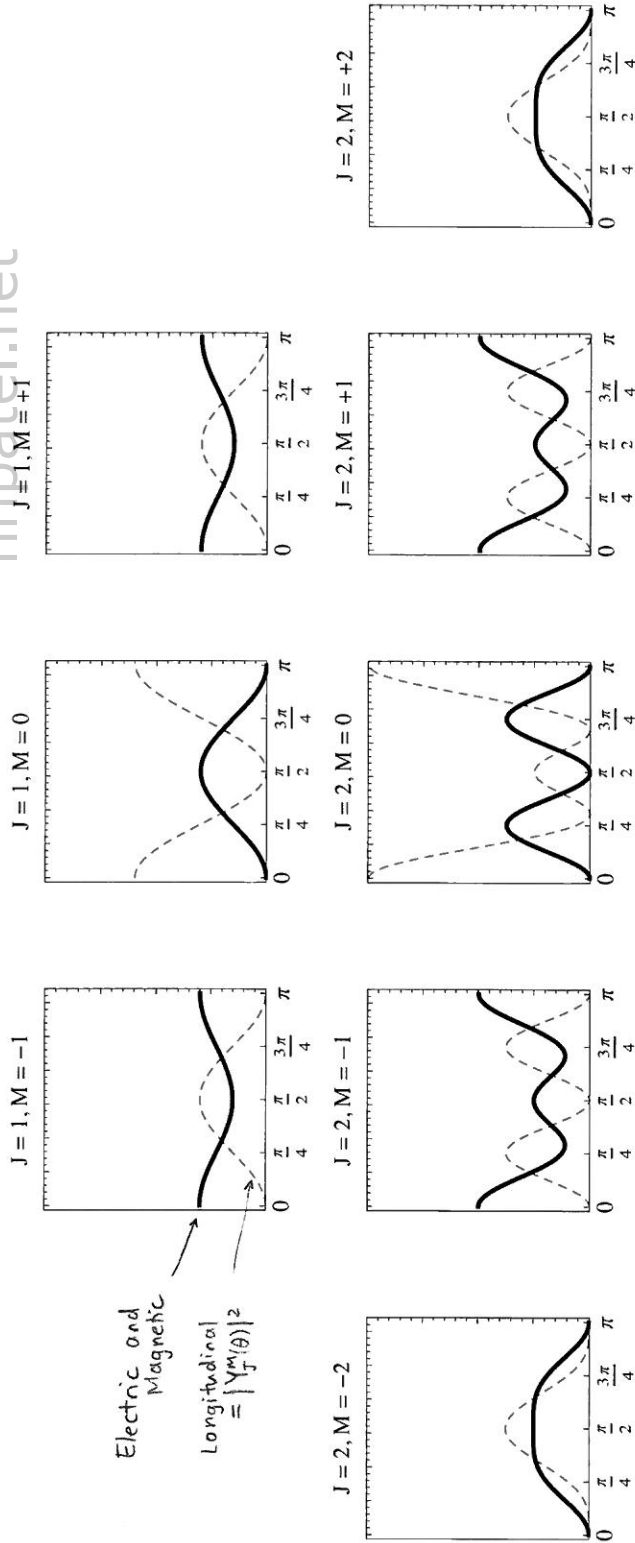


Intensity distribution of multipole harmonics

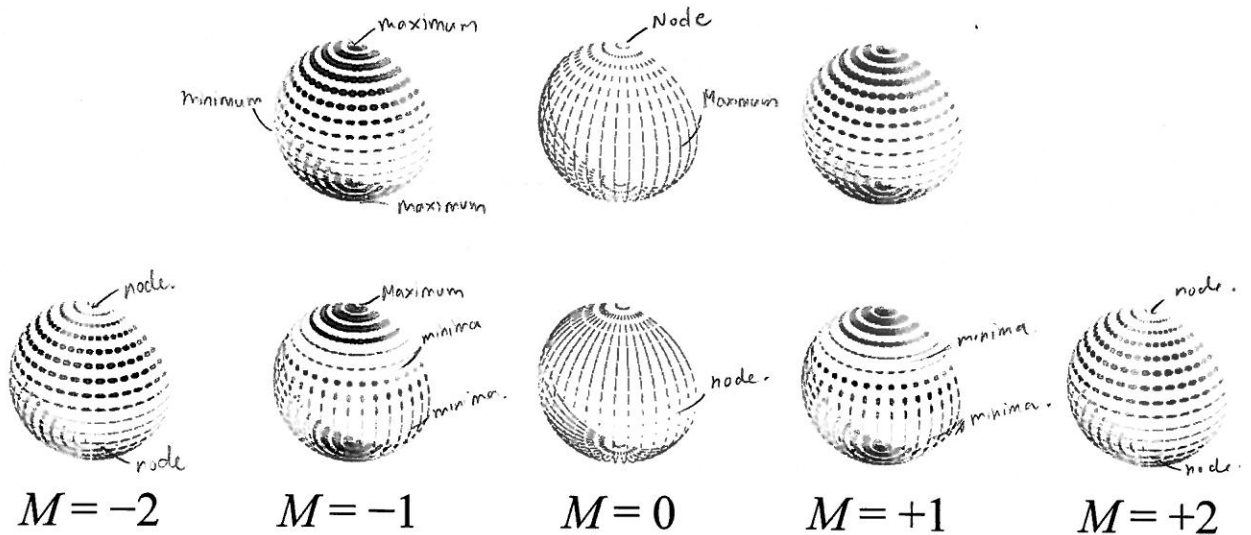
Hiren H. Patel  
hhpatel.net



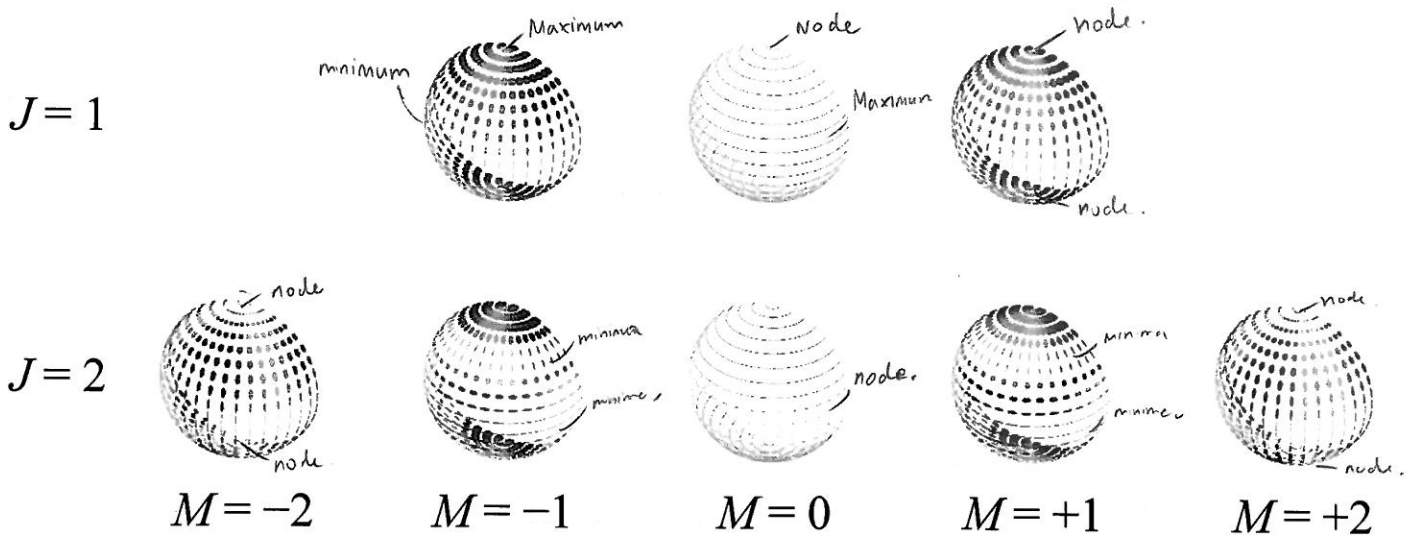
# Vector Spherical Harmonics - multipole basis

- functions of good parity
- functions of indefinite helicity (because there are areas that are not totally circularly polarized.)

## Electric Multipole: $\vec{V}_{J, M}^{(\mathcal{E})}(\Omega)$



## Magnetic Multipole: $\vec{V}_{J, M}^{(\mathcal{M})}(\Omega)$



Note: linearly polarized along equator for all  $M$  and everywhere for  $M=0$ .