1 Spherical Coordinate System

The spherical coordinate system uses three coordinates (r, θ, ϕ) where:

- r is the radial distance from the origin

- θ is the polar angle from the positive z-axis

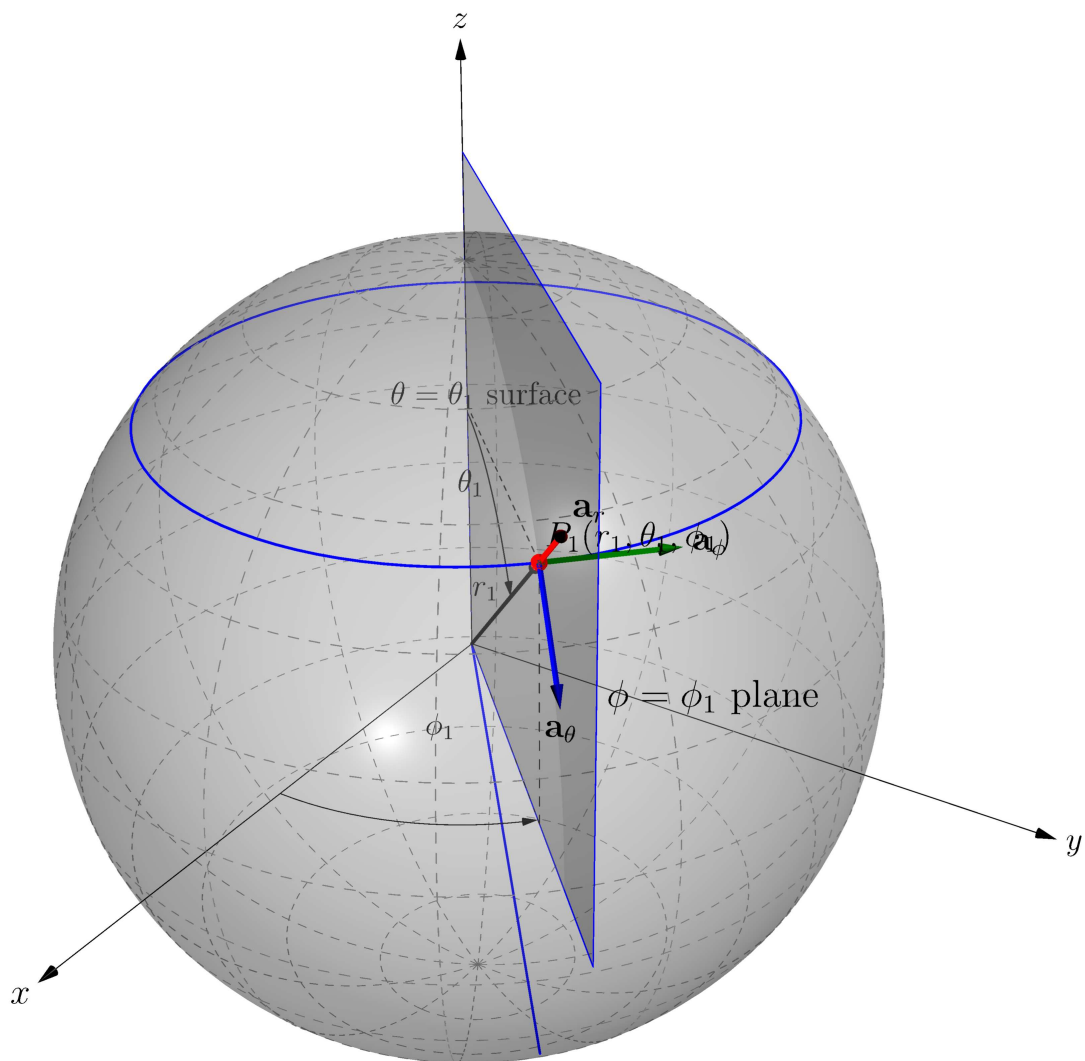- ϕ is the azimuthal angle from the positive x-axis

Figure 1: Spherical coordinate system showing point P_1 and basis vectors