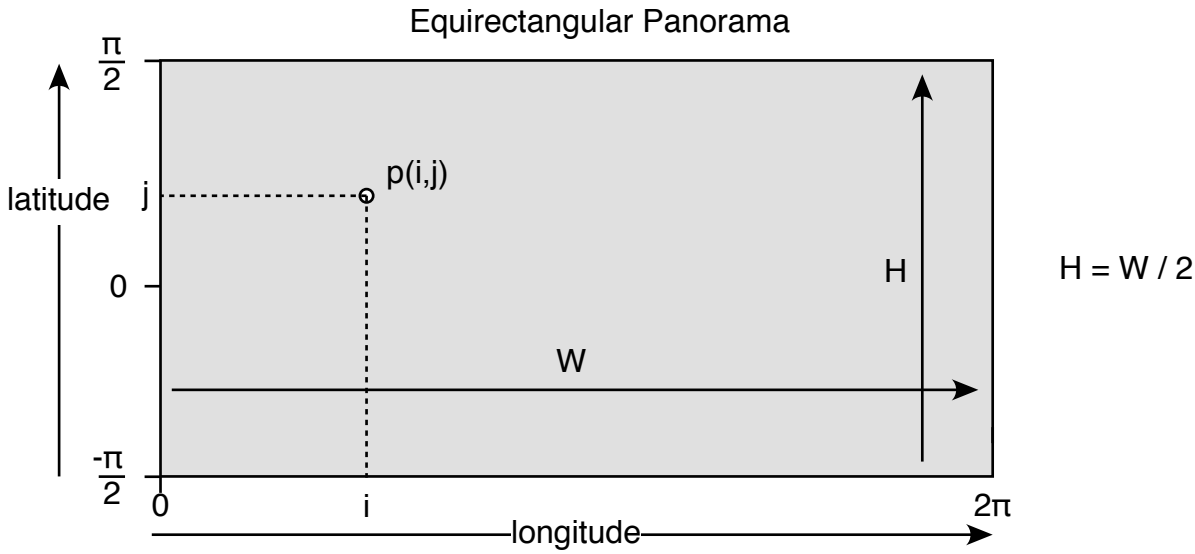
Mathematics for Omnidirectional Stereoscopic Equirectangular Panorama



$$\text{longitude} = i\ 2\pi / W$$

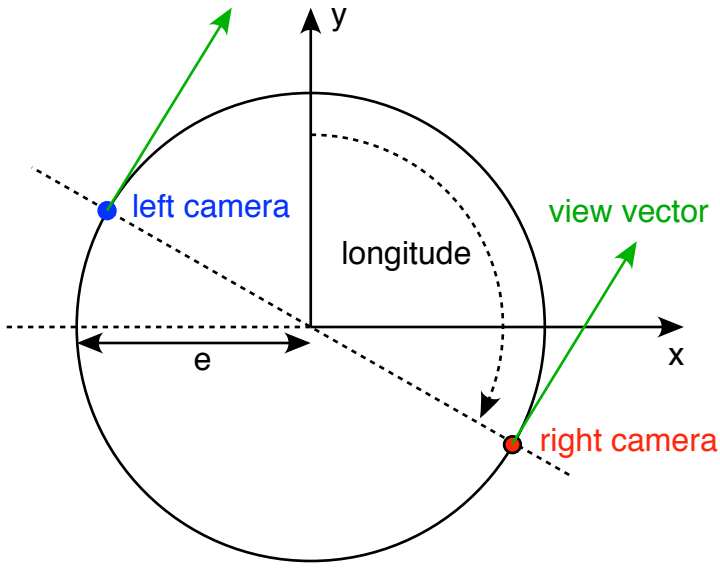
$$\text{latitude} = (j - \frac{H}{2})\ \pi\ / H$$

Camera position	Left eye	Right eye
	x = e sin(longitude)	x = e sin(longitude + π)
	y = e cos(longitude)	y = e cos(longitude + π)
	z = 0	z = 0

View vector, perpendicular to circle

x = cos(latitude) cos(longitude)
y = -cos(latitude) sin(longitude)
z = sin(latitude)

Top view



Side view