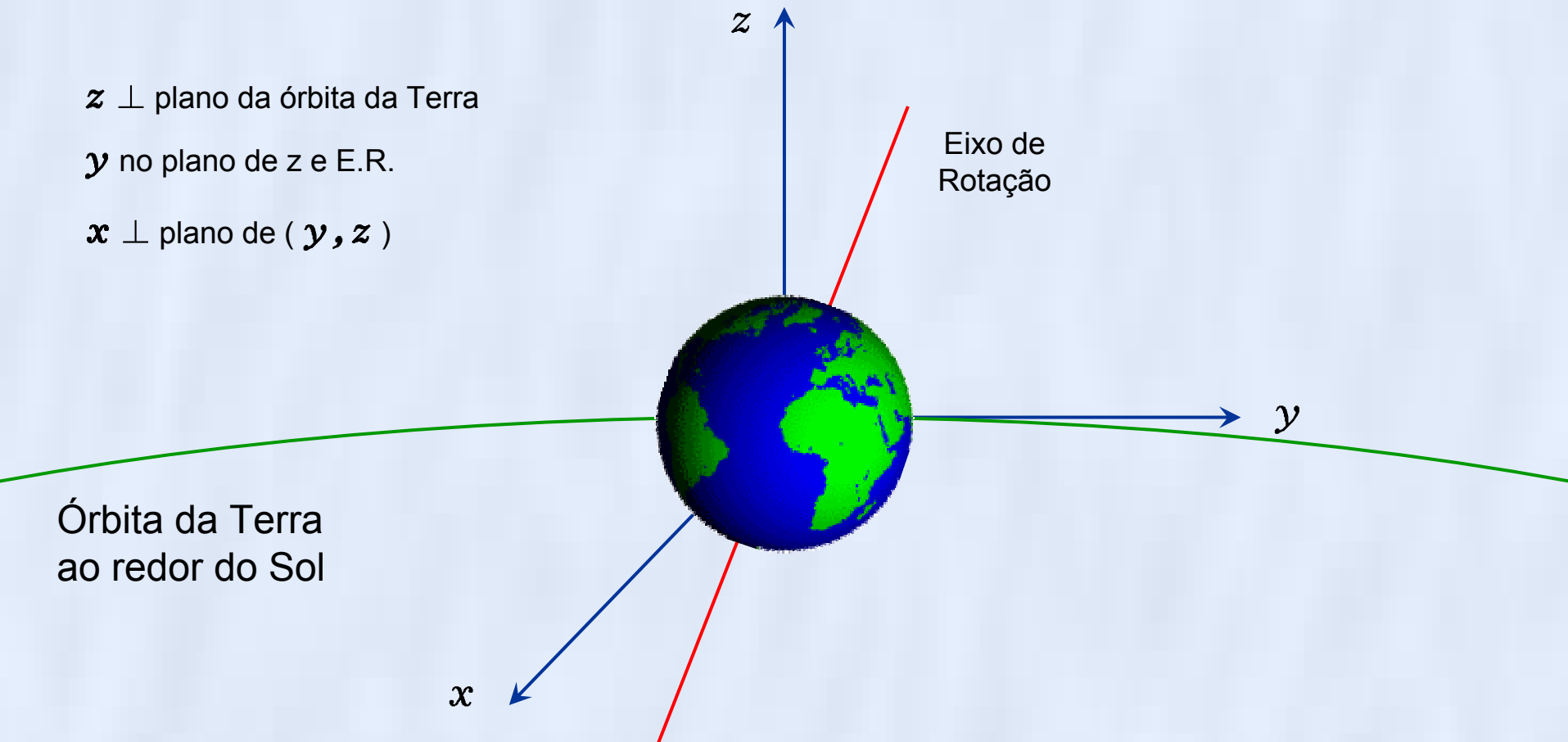


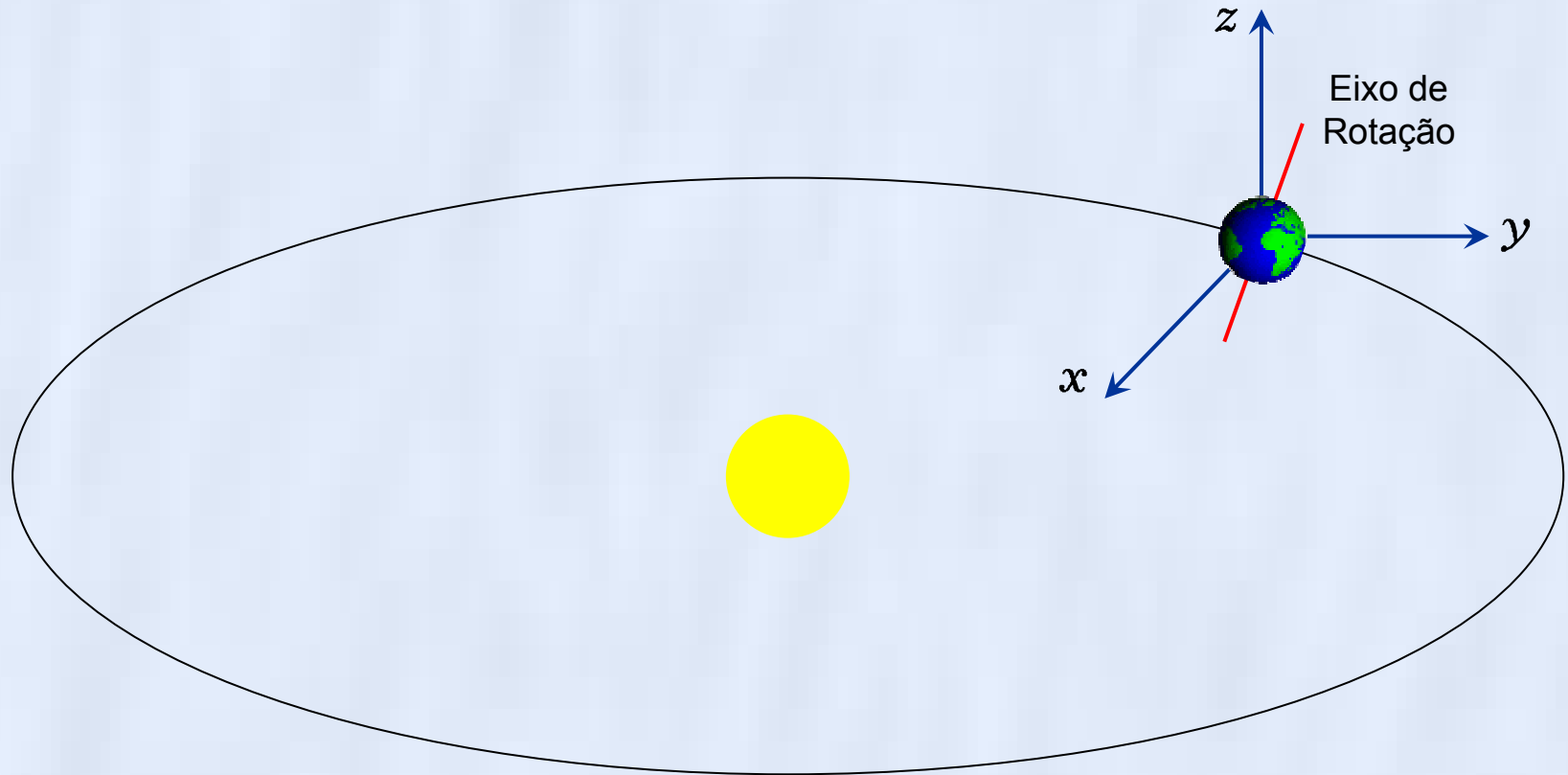
CENTRO DE MASSA
BARICENTRO
CENTRO DE GRAVIDADE



Irineu Gomes Varella
V.1.0 - 2010

COORDENADAS HELIOCÊNTRICAS

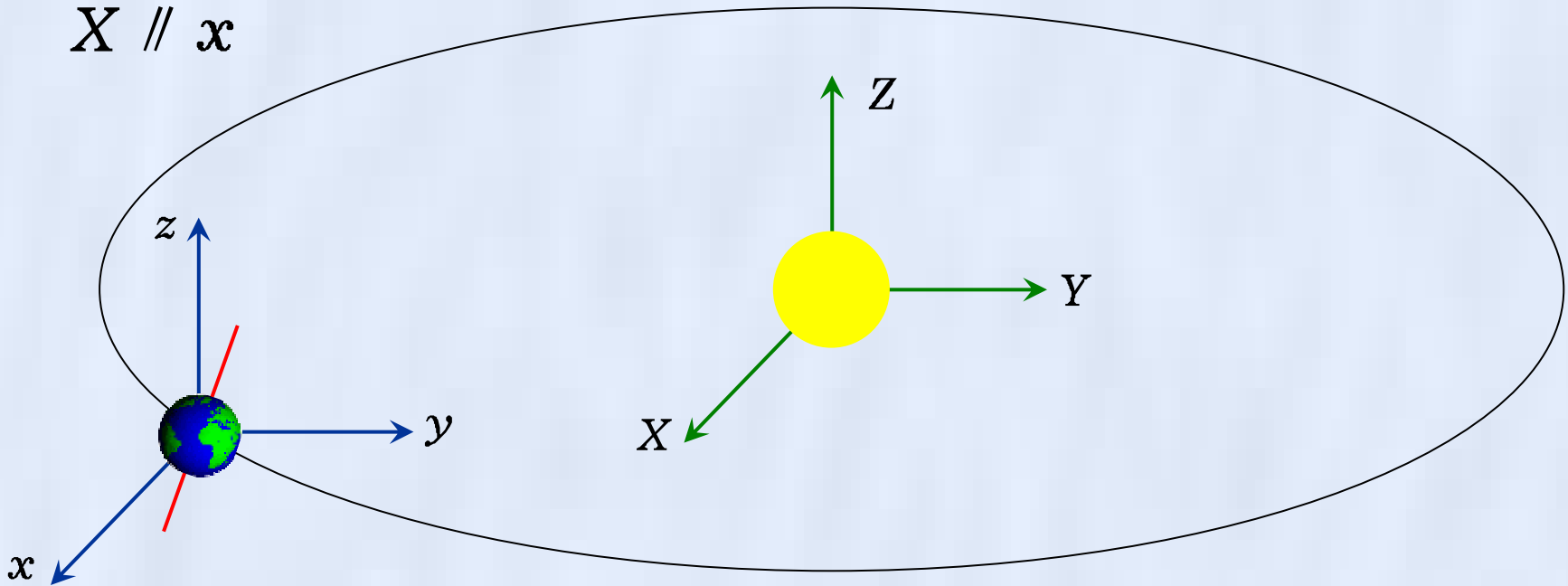




$$Z \parallel z$$

$$Y \parallel y$$

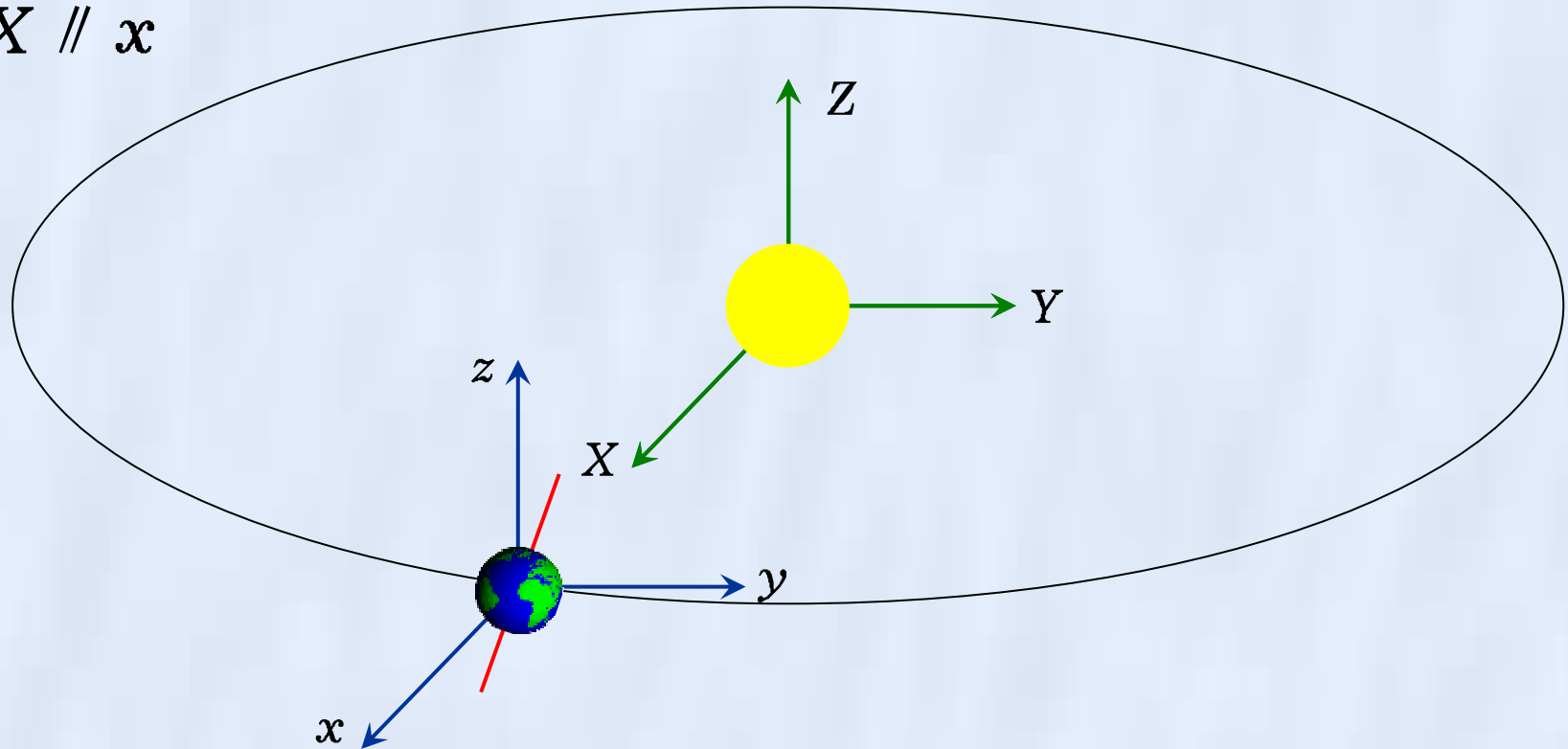
$$X \parallel x$$

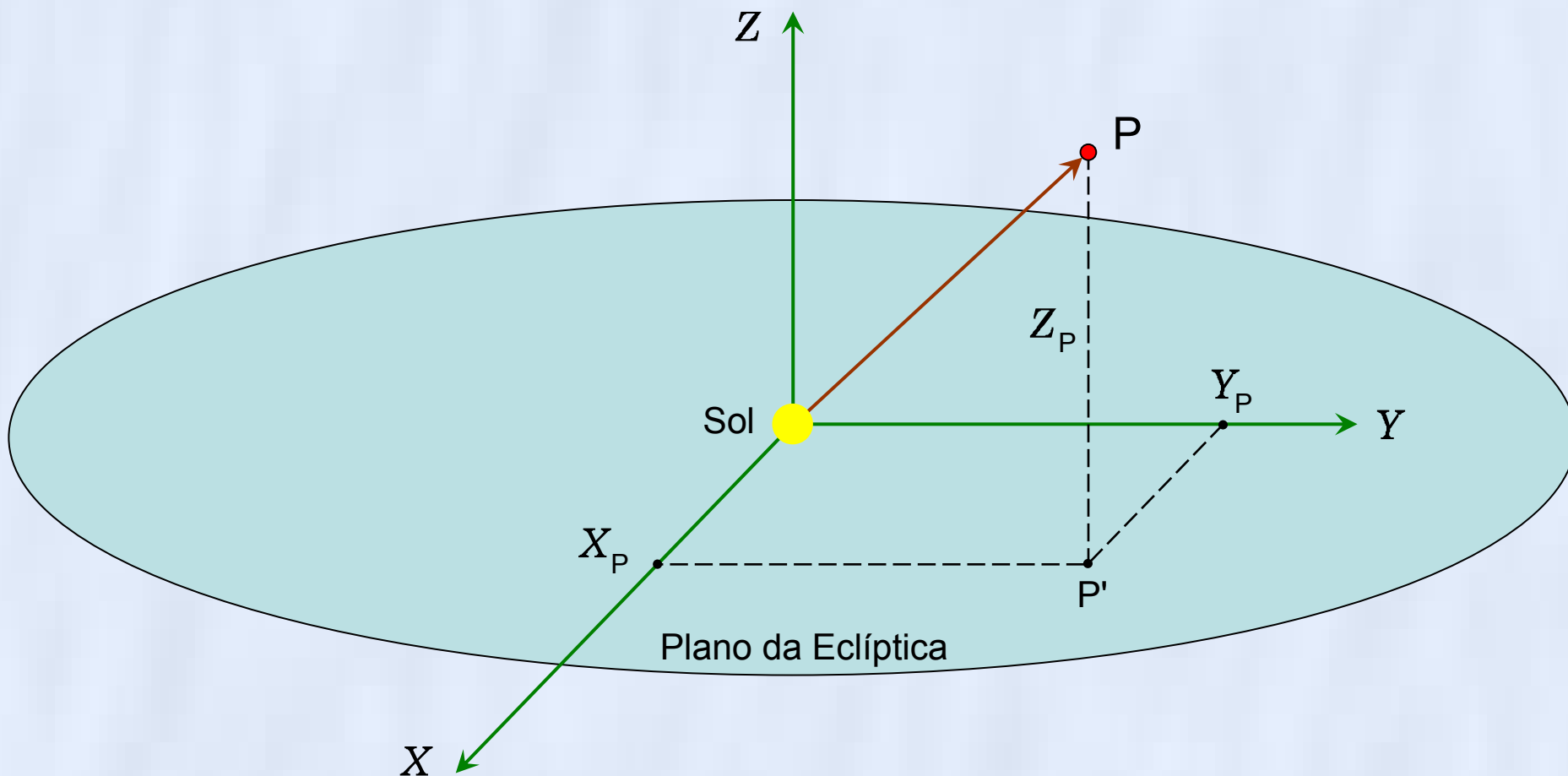


$Z \parallel z$

$Y \parallel y$

$X \parallel x$



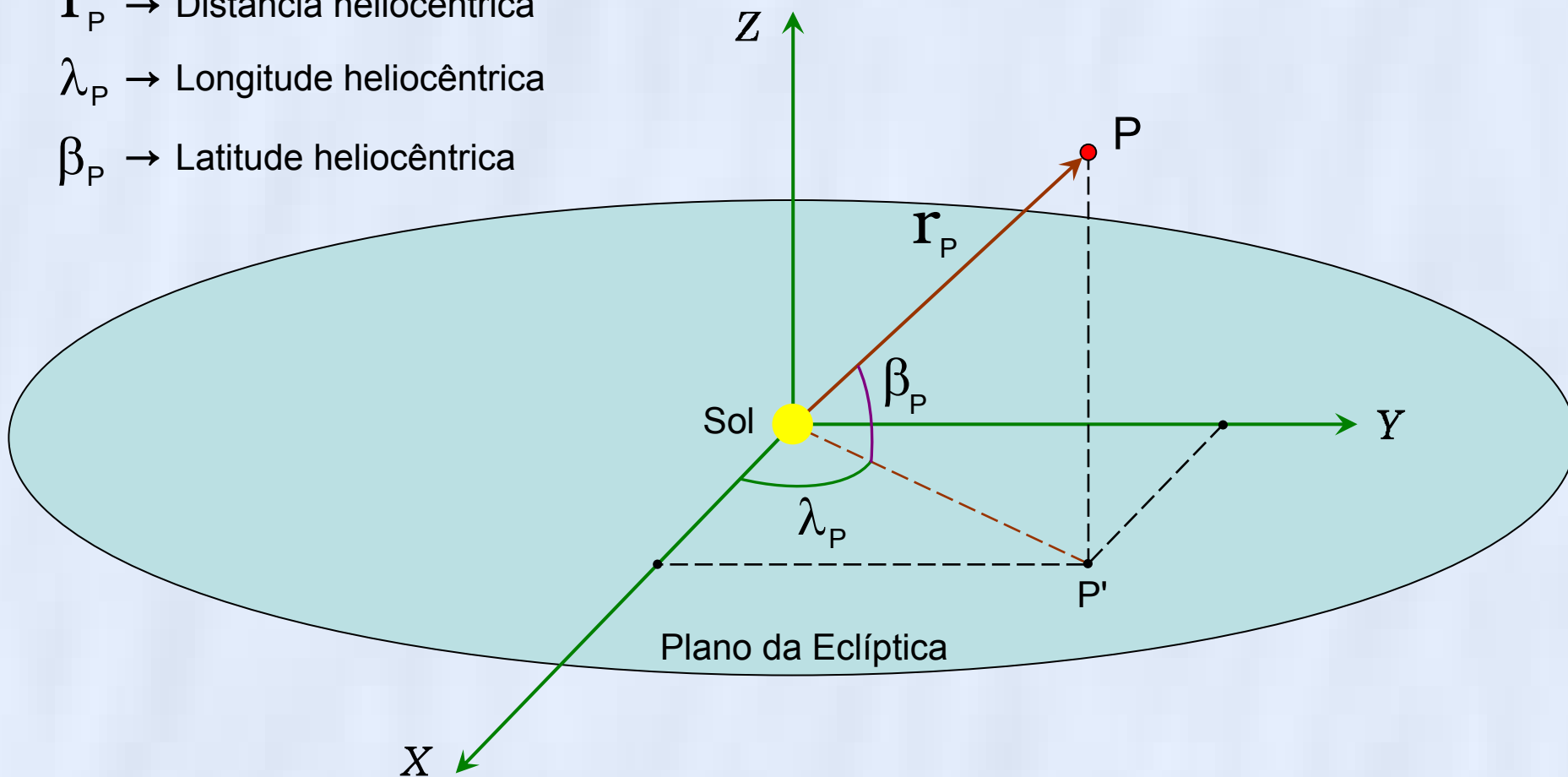


$X_P, Y_P, Z_P \rightarrow$ Coordenadas retangulares eclípticas heliocêntricas

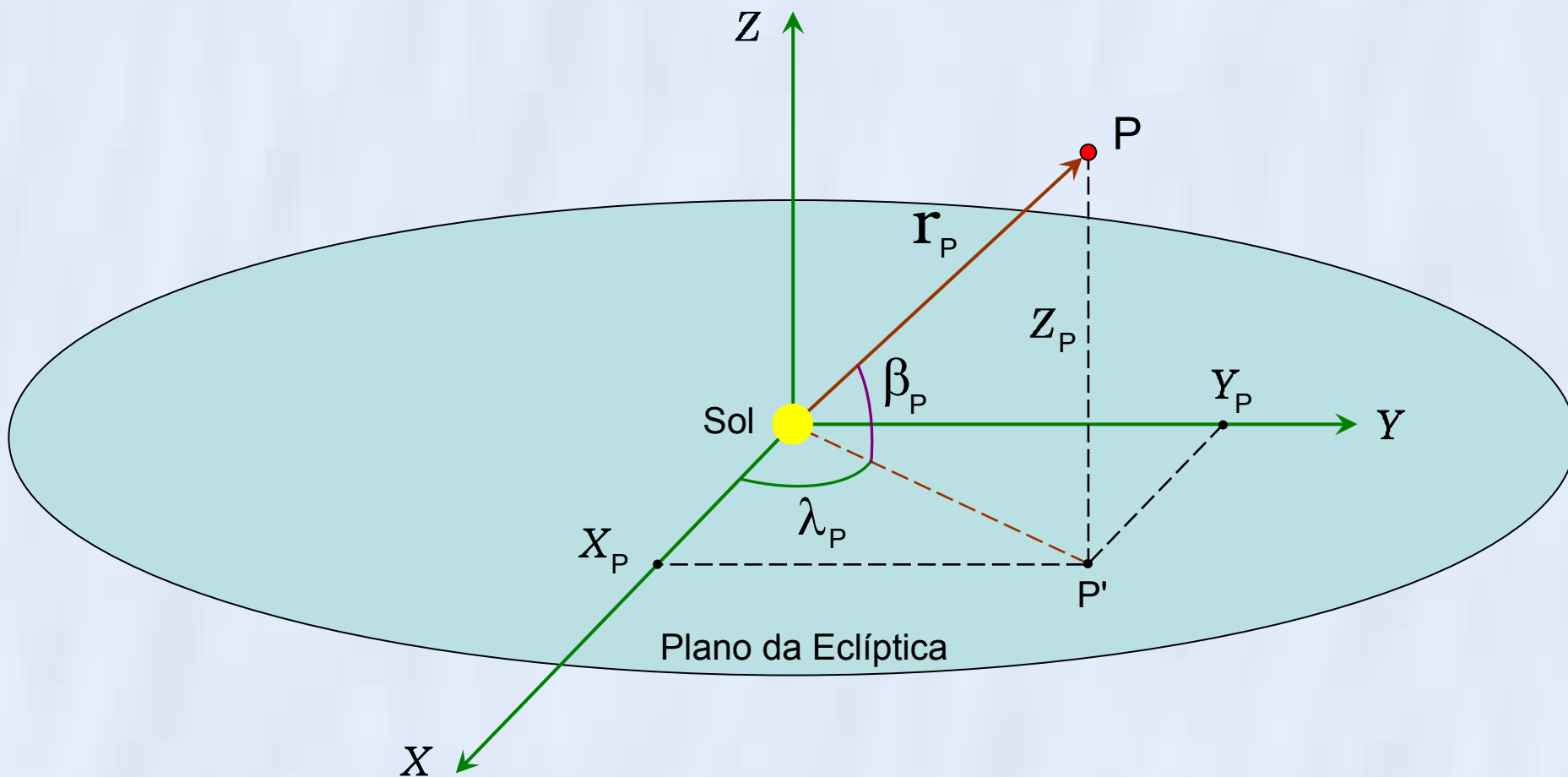
r_P → Distância heliocêntrica

λ_P → Longitude heliocêntrica

β_P → Latitude heliocêntrica



r_P, λ_P, β_P → Coordenadas (esféricas) eclípticas heliocêntricas

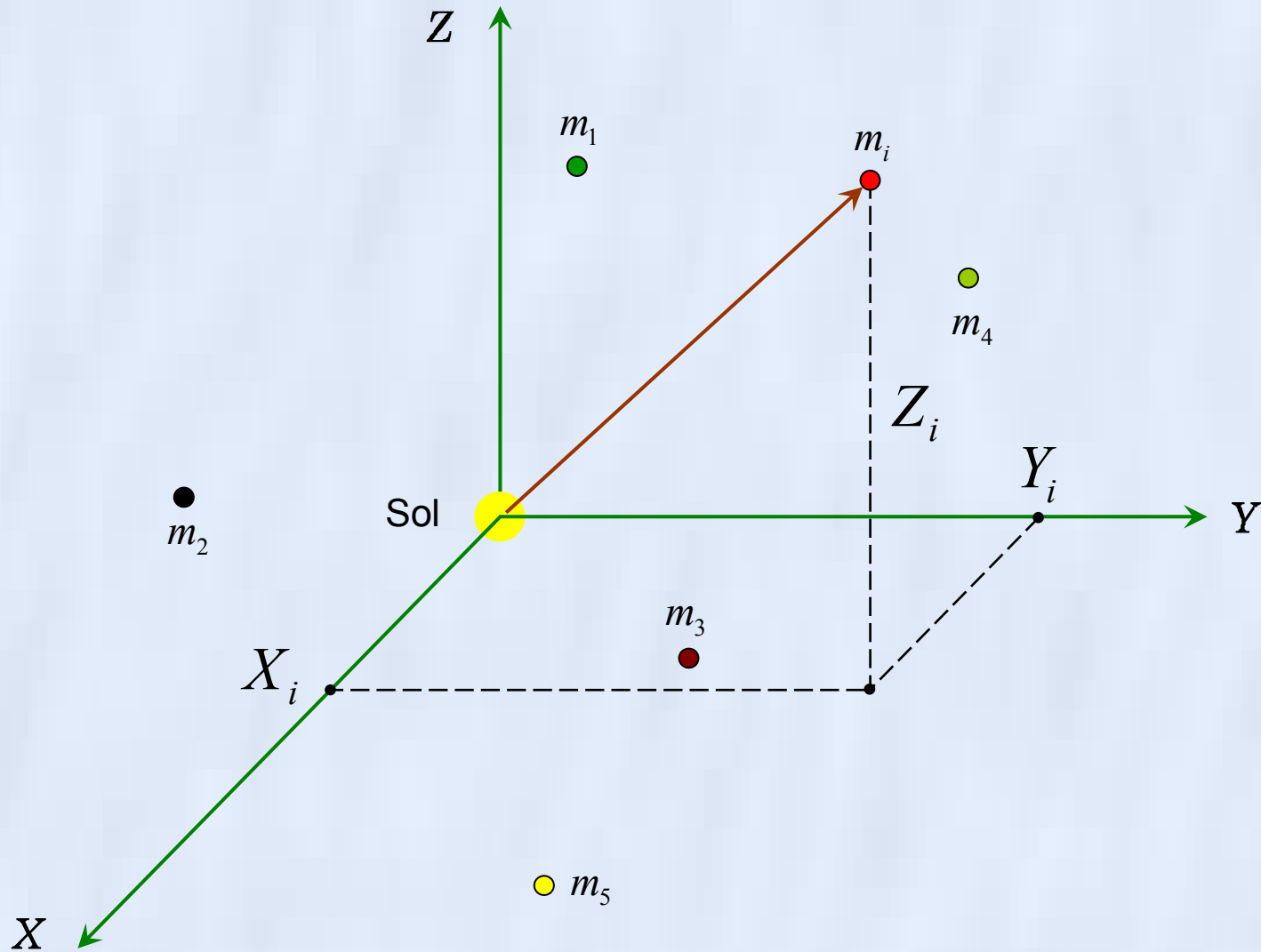


$$X_P = r_P \cos \beta_P \cos \lambda_P$$

$$Y_P = r_P \cos \beta_P \sin \lambda_P$$

$$Z_P = r_P \sin \beta_P$$

O BARICENTRO DO SISTEMA SOLAR



$$X_B = \frac{m_1 X_1 + m_2 X_2 + \dots + m_n X_n}{m_1 + m_2 + \dots + m_n} = \frac{\sum_{i=1}^n m_i X_i}{\sum_{i=1}^n m_i}$$
$$Y_B = \frac{m_1 Y_1 + m_2 Y_2 + \dots + m_n Y_n}{m_1 + m_2 + \dots + m_n} = \frac{\sum_{i=1}^n m_i Y_i}{\sum_{i=1}^n m_i}$$
$$Z_B = \frac{m_1 Z_1 + m_2 Z_2 + \dots + m_n Z_n}{m_1 + m_2 + \dots + m_n} = \frac{\sum_{i=1}^n m_i Z_i}{\sum_{i=1}^n m_i}$$

