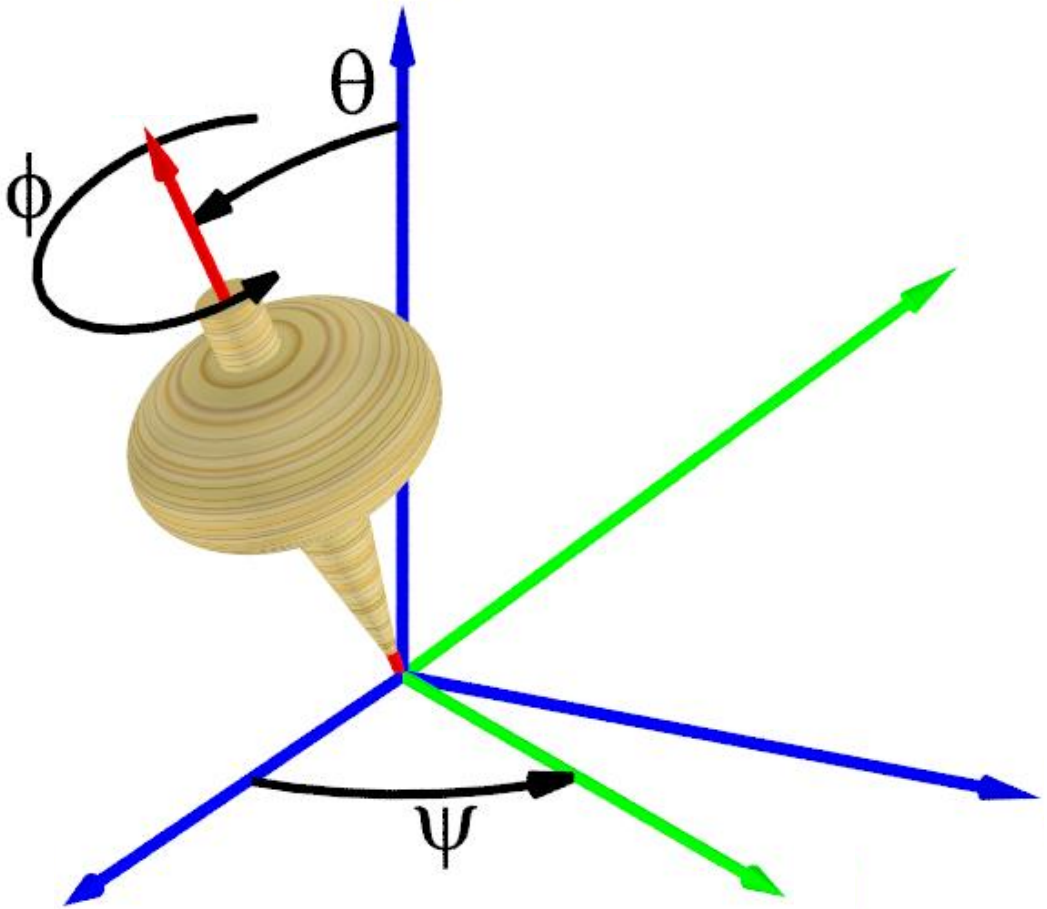
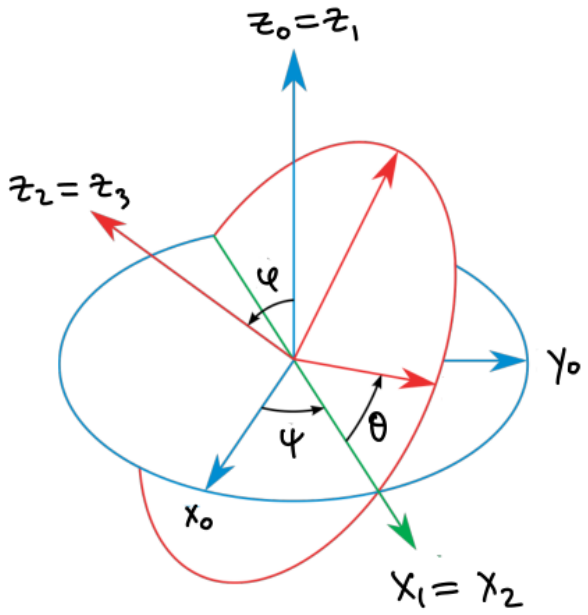


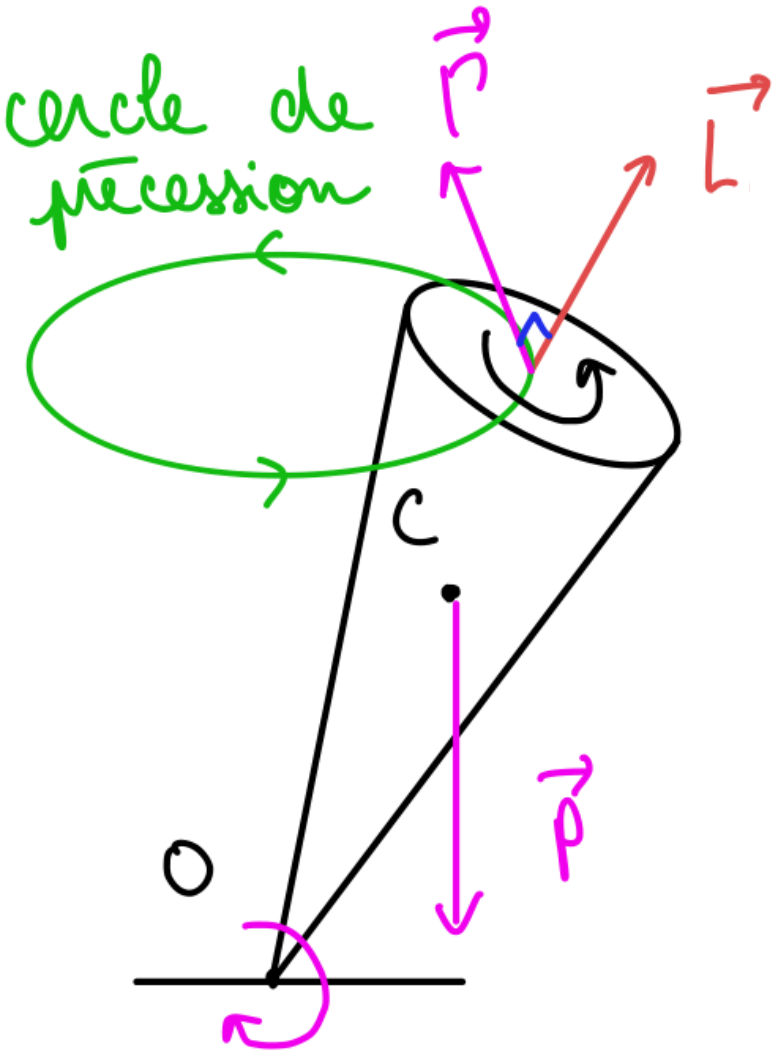
Wikipedia

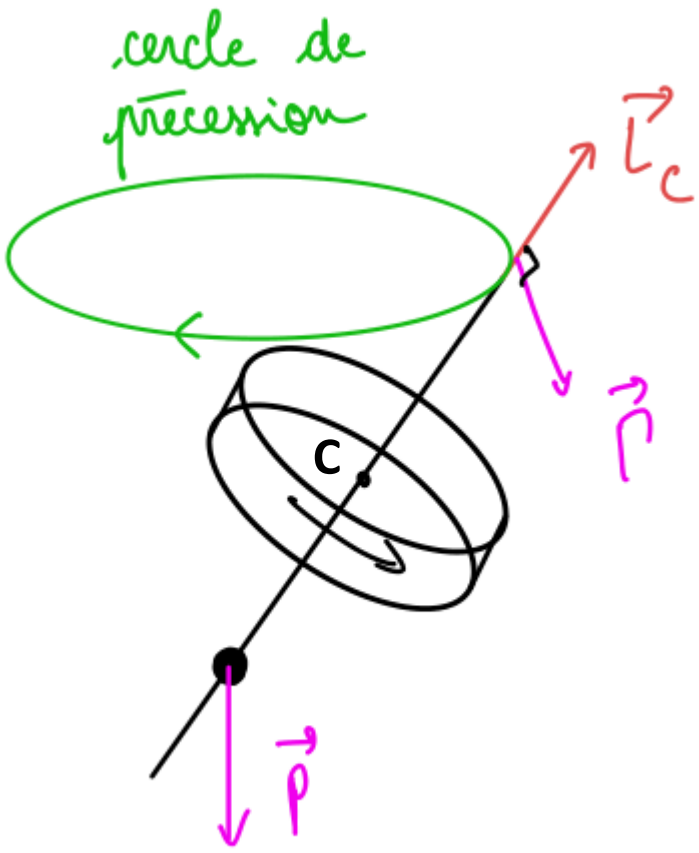


R_0 —(précession ψ, $z_0 = z_1$)→ R_1 —(nutation θ, $x_1 = x_2$)→ R_2 —(rotation propre φ, $z_2 = z_3$)→ R_3

R_0 : repère fixe ; R_1, R_2 : repères intermédiaires ; R_3 : repère lié au solide

vitesse angulaire : $\boxed{\vec{\Omega}_{3/0} = \dot{\psi}\vec{z}_0 + \dot{\theta}\vec{x}_1 + \dot{\varphi}\vec{z}_2}$


cercle de précession
$\vec{r}$
$\vec{L}$
C
O
$\vec{P}$


cercle de précession
$\vec{L}_C$
$\vec{r}$
C
$\vec{P}$

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Physicists Wolfgang Pauli, left, and Niels Bohr demonstrating a "tippe top" toy in 1954. Tippe tops flip upside down to spin on their handle and are part of the "Secret Science of Toys" festival at the Fleet Science Center on Jan. 21.

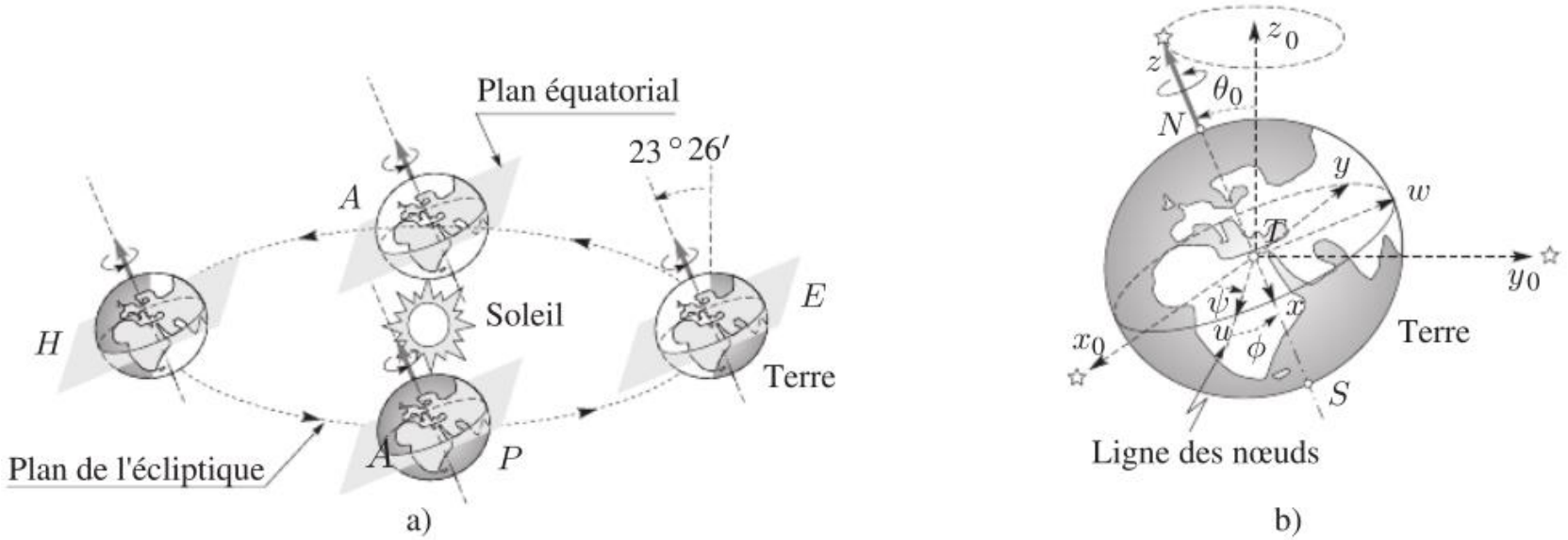
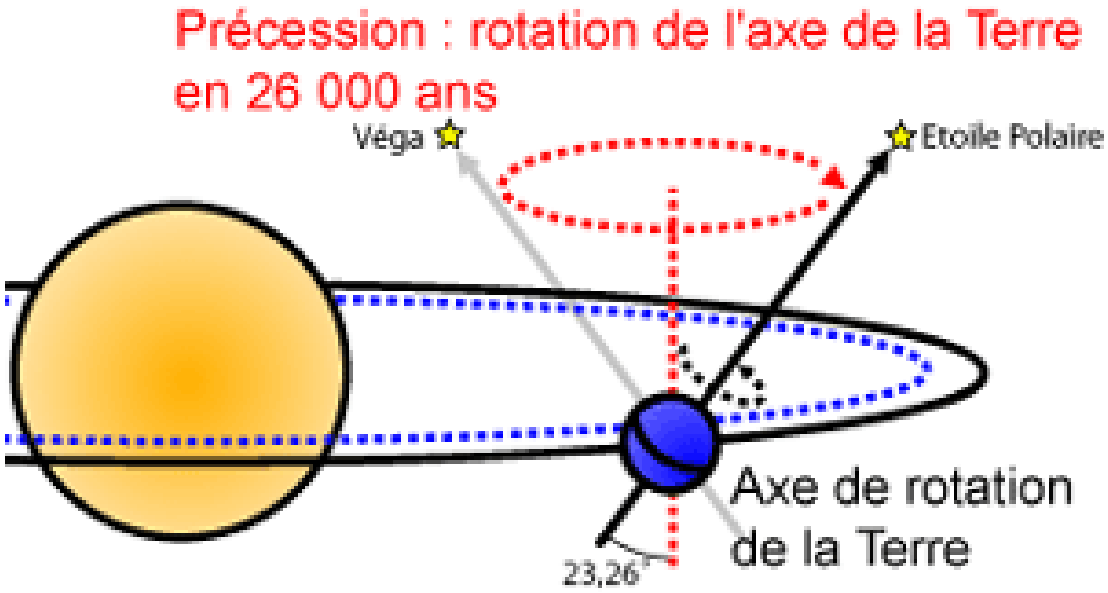
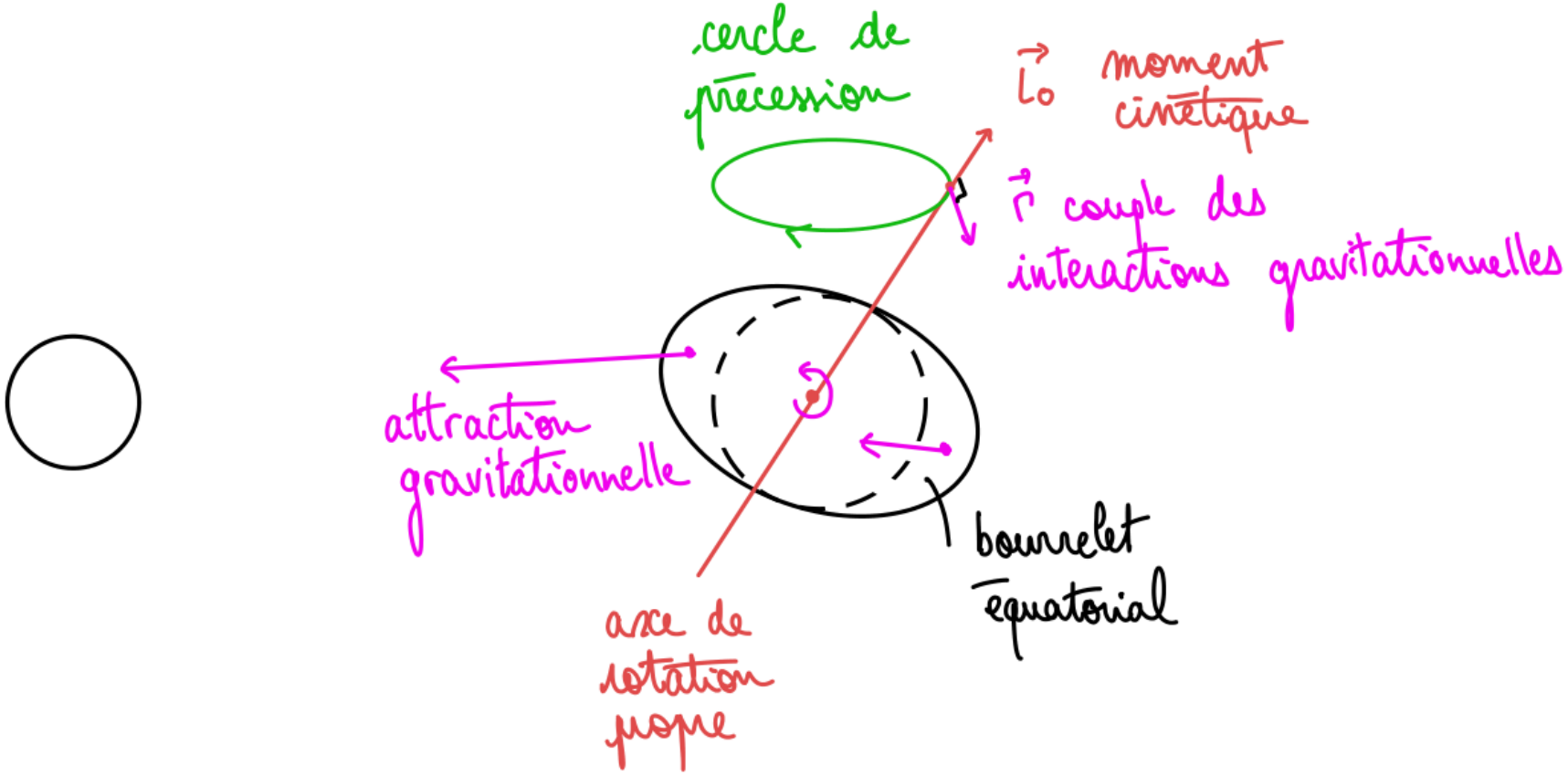


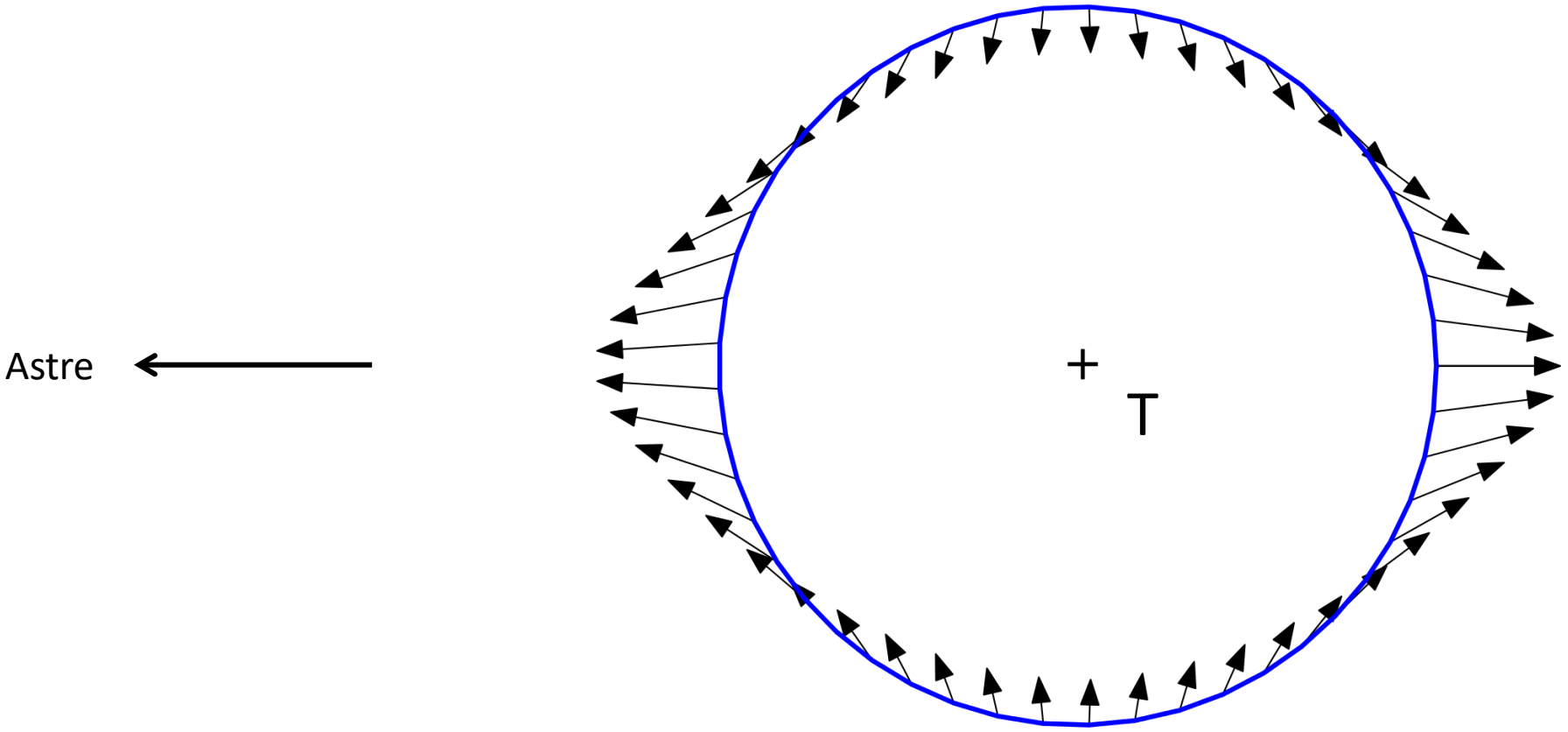
FIG. 26.7.

Source: Mécanique, Pérez



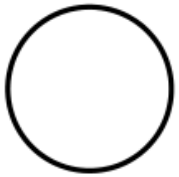
Source: https://media4.obspm.fr/

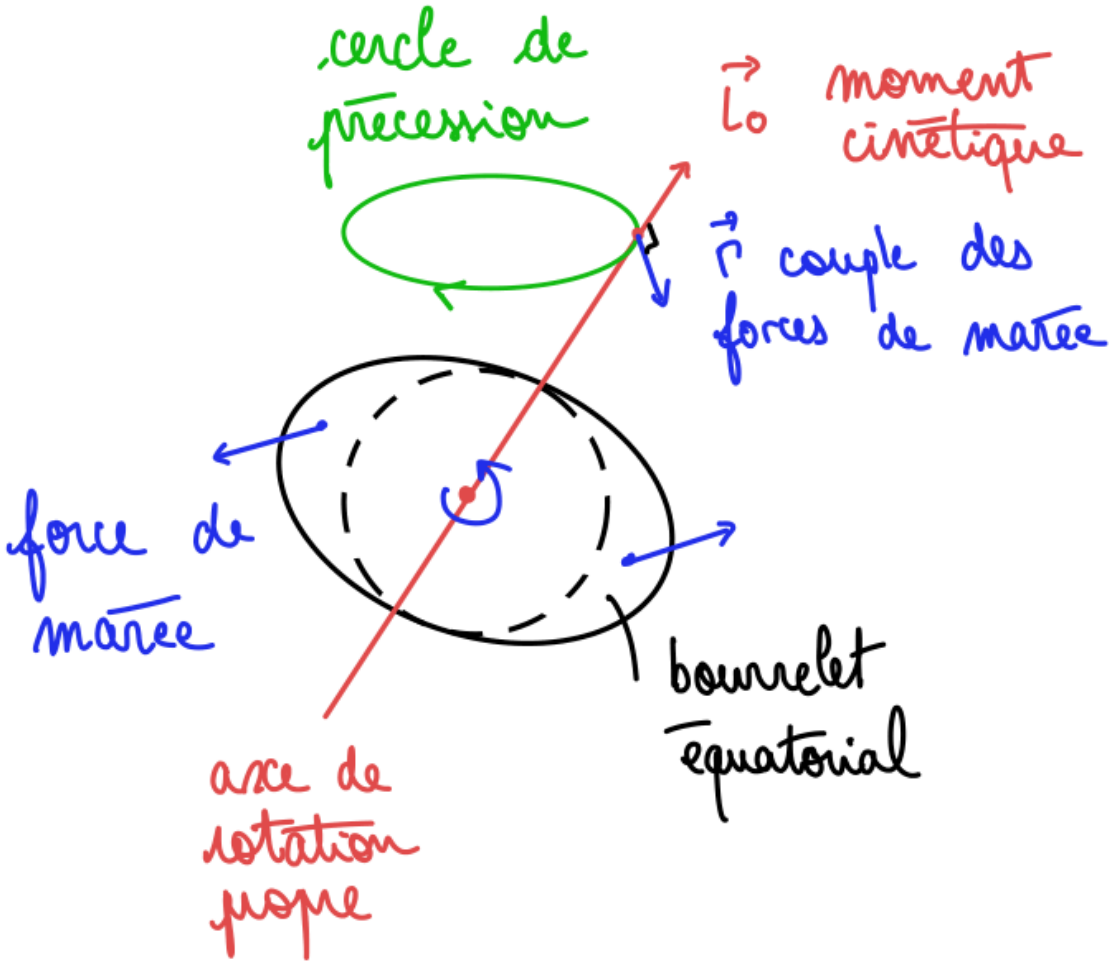

cercle de précession
$\vec{L_O}$ moment cinétique
$\vec{r}$ couple des interactions gravitationnelles
attraction gravitationnelle
bourrelet équatorial
axe de rotation propre



$$\overrightarrow{g_{marées}}(M) = \vec{g}(M) - \vec{g}(T)$$

Source: wikipedia




cercle de précession
$\vec{L_O}$ moment cinétique
$\vec{\Gamma}$ couple des forces de marée
force de marée
bourrelet équatorial
axe de rotation propre

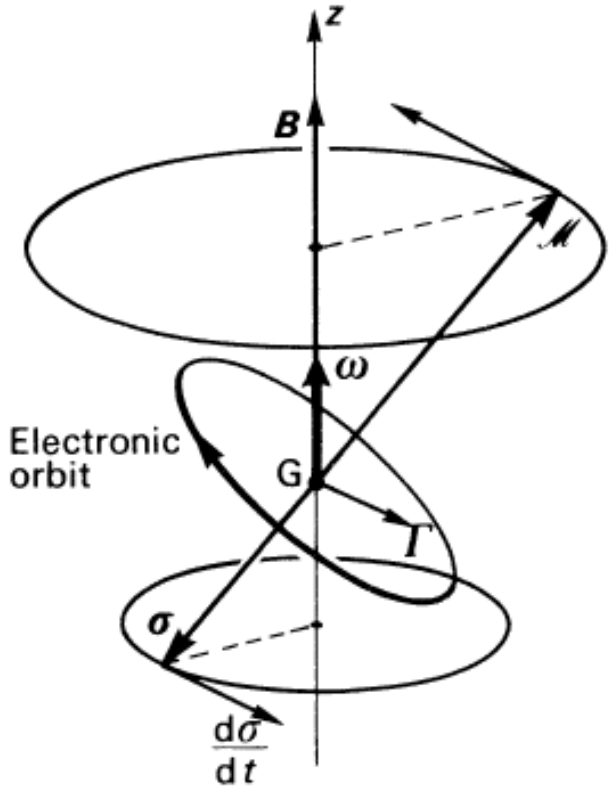
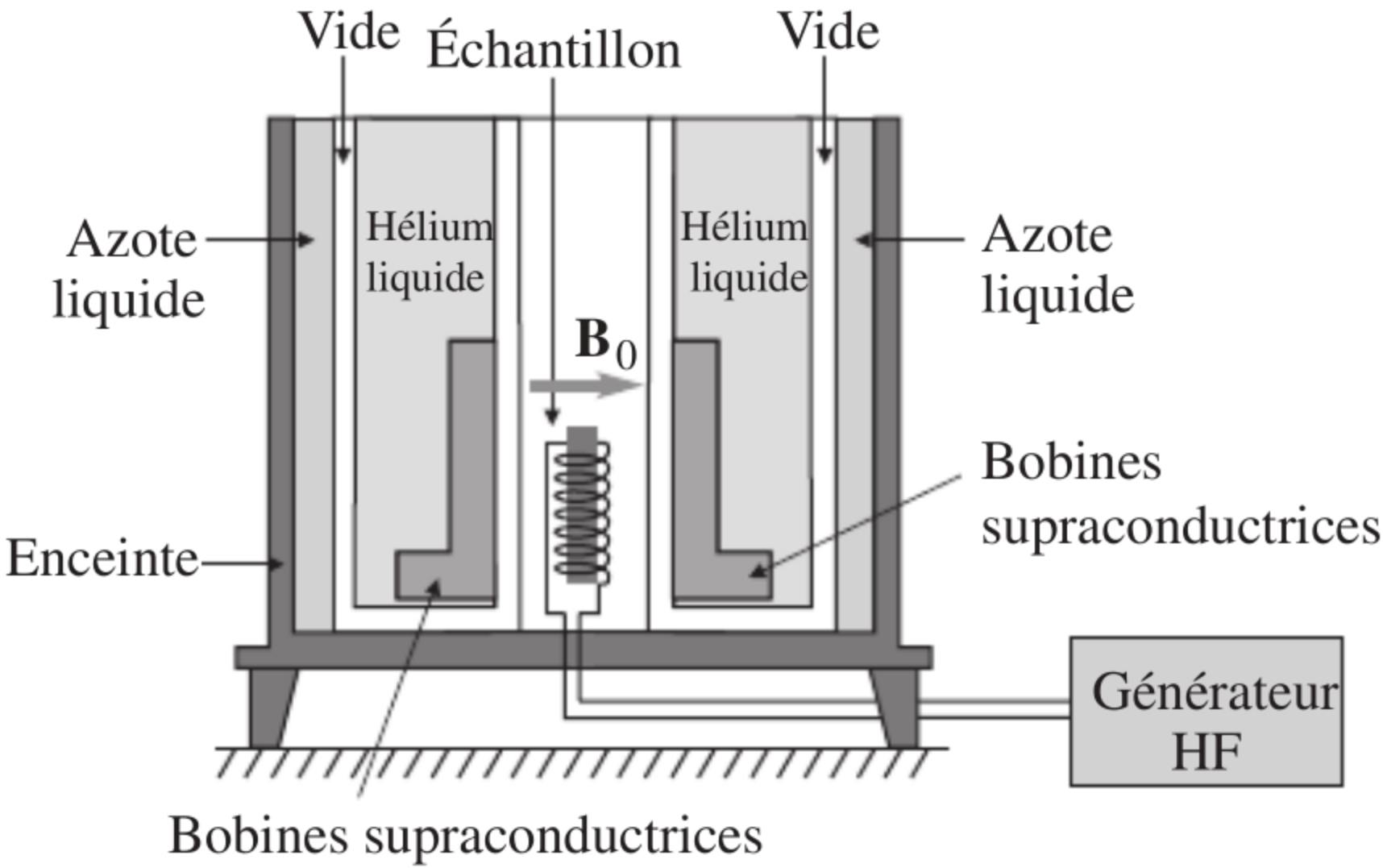


Figure 9.1 Larmor precession

Source: Cagnac



Source : Pérez, Mécanique