$$\omega = \sum f_i \, dx_1 \wedge \dots \widehat{dx_i} \wedge dx_n .$$

$$\mu \wedge \omega = \left(\sum (-1)^{i-1} x_i f_i \right) dx_1 \wedge \dots \wedge dx_n .$$

Vogliamo $\sum_i (-1)^{i-1} x_i f_i = 1$.

$$f_i = \frac{(-1)^{i-1} x_i}{\sum_i x_i^2} .$$

Esercizio 8

$\omega = x\, dy \wedge dz - y\, dx \wedge dz + z\, dx \wedge dy \quad \in \mathcal{E}^2(S^2)$

Verificare che è chiusa ma non esatta.

$(x, y, z) = (\cos\theta \sin\varphi, \sin\theta \sin\varphi, \cos\varphi)$

$\omega = (\cos^2\theta \sin\varphi^2 \, d\theta + \cos\theta \sin\varphi \sin\theta \sin\varphi \, d\varphi) \wedge dz +$

$- y\, dx \wedge dz + z\, dx \wedge dy = \cos^2\theta \sin\varphi^3 \, d\theta \wedge d\varphi .$

$+ \operatorname{sen}^2\theta \sin\varphi^3 \, d\theta \wedge d\varphi - \cos^2\varphi \operatorname{sen}\varphi \, d\theta \wedge d\varphi$