







Q&A



















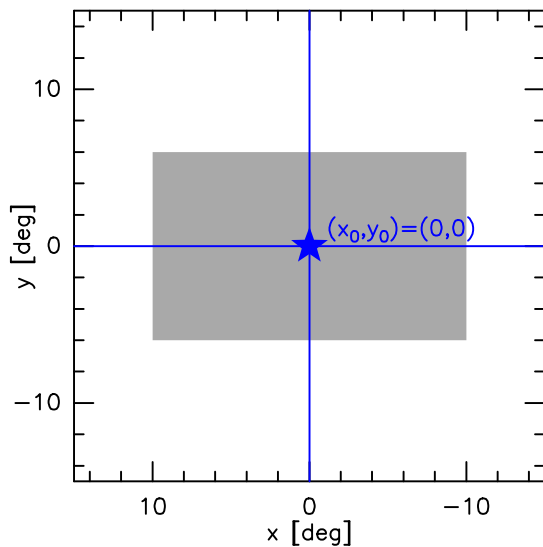
2020

000000

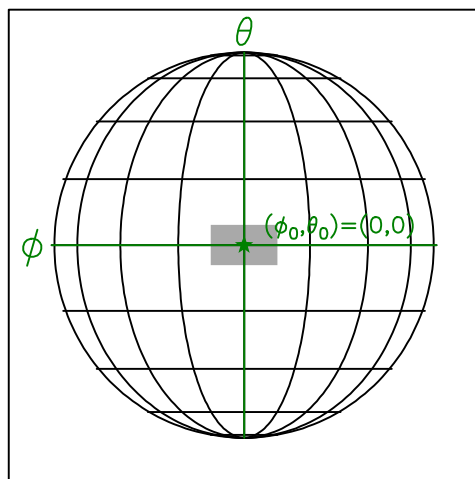




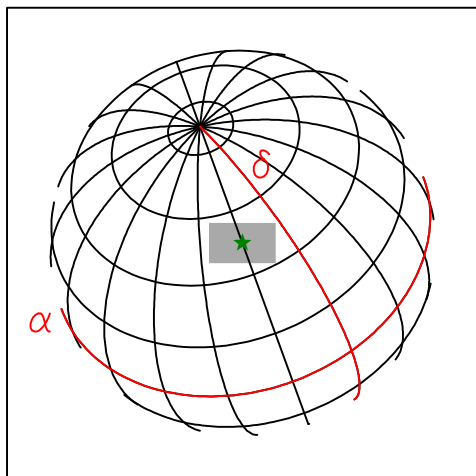
2D projected plane



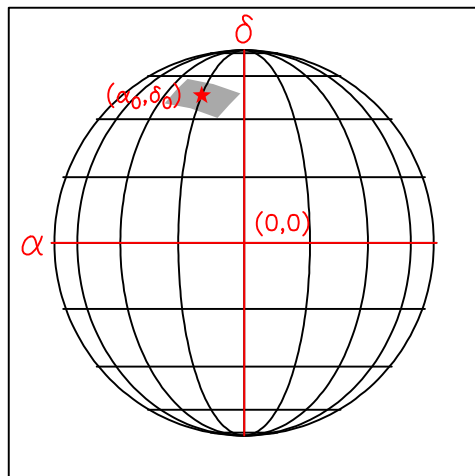
3D native sphere



3D celestial sphere



3D celestial sphere

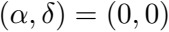




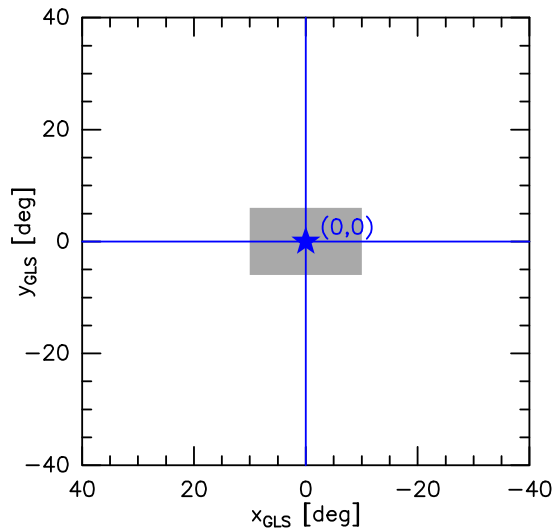




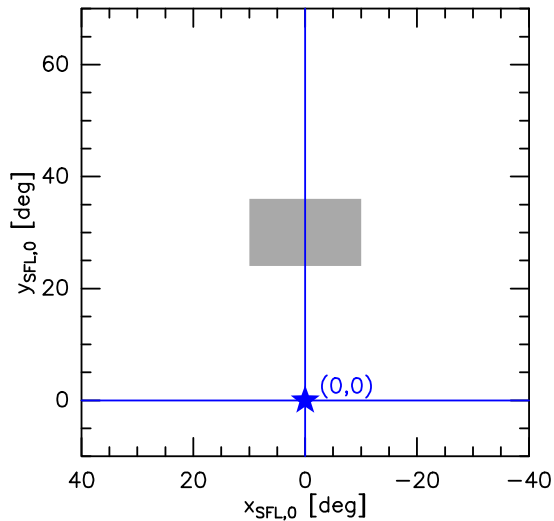




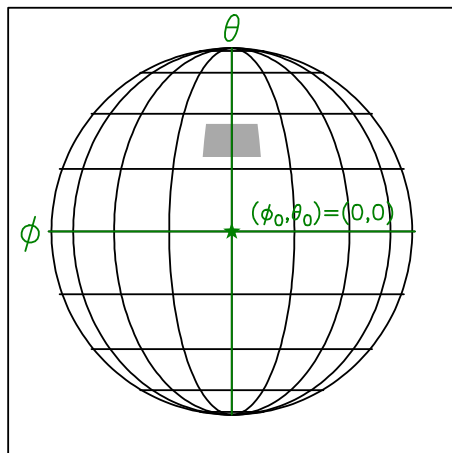
2D GLS projected plane



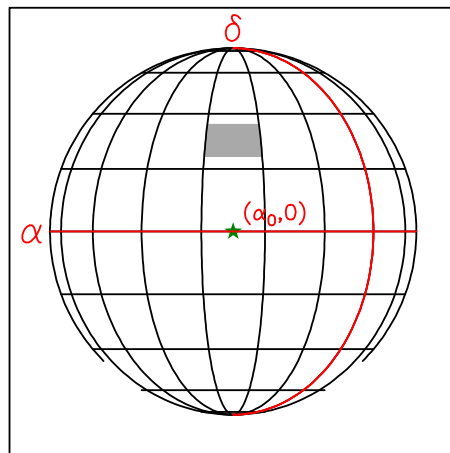
2D SFL projected plane



3D native sphere



3D celestial sphere





sin cos sin cos / sin cos cos



cos(1)sin(2)cos(1)sin(2)



$$\tan \frac{\theta}{2}$$













$$\cos \theta = \sin \theta + \cos \theta$$

$$r_{\text{AIPS}} = 2 \frac{\sin \theta}{1 + \cos \theta}$$

$$r_{\text{AIPS}} = 2 \tan \frac{\theta}{2}$$

$$\tan x = \frac{\sin x}{\cos x} = \frac{2 \sin x \cos x}{2 \cos^2 x} = \frac{\sin 2x}{1 + \cos 2x}$$

1999-2000

















WORLDWIDE



$$\phi_p = \begin{cases} 0^\circ & \text{for } \delta_0 \geq 0 \\ 180^\circ & \text{for } \delta_0 < 0 \end{cases}$$

911





$$\cos(\theta) + \cos^{-1}(\sin \theta)$$



0, cos p - 1 sin 0)











$$\delta_p = \begin{cases} \delta_{p,1} & \text{if } \delta_{p,1} > 0 \text{ and } \delta_{p,1} \leq 90^\circ \\ \delta_{p,2} & \text{otherwise.} \end{cases}$$





$$\alpha_p = \begin{cases} \alpha_0 + \phi_p - 180^\circ & \text{for } \delta_p = +90^\circ \\ \alpha_0 - \phi_p & \text{for } \delta_p = -90^\circ \\ \alpha_0 - \text{atan2}(0, -\frac{\sin \delta_p \sin \delta_0}{\cos \delta_p \cos \delta_0}) & \text{otherwise.} \end{cases}$$



x



$\cos y$





$$(-\cos \theta \sin(\phi - \phi_p), \sin \theta \cos \delta_p - \cos \theta \sin \delta_p \cos(\phi - \phi_p))$$



$$\sin^{-1}(\sin \theta \sin \phi_p + \cos \theta \cos \phi_p \cos(\phi - \phi_p))$$



$$(-\cos \delta \sin(\alpha - \alpha_p), \sin \delta \cos \delta_p - \cos \delta \sin \delta_p \cos(\alpha - \alpha_p))$$

$$\sin^{-1}(\sin \delta \sin \delta_p + \cos \delta \cos \delta_p \cos(\alpha - \alpha_p))$$













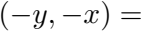
00

→

1000

09110

$$\phi_{SFL,0} = \arctan2(-\cos \delta \sin(\alpha - \alpha_0 - 180^\circ), -\cos \delta \cos(\alpha - \alpha_0 - 180^\circ)) = \alpha - \alpha_0$$



1900 + 1900

QUEST

$$\text{SPIL}_0 = \text{SPIL}_1 \text{ (sid)} = \text{sid}$$

2020

Q = 00000

95% 100%

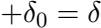




— 1000000











POSTAL, POSTAL







—

19

19

19

19

—

19

(3600, -1800), (3600, +1800)

2009

