I.

OD POSMATRANOG IZVORA DO NJEGOVE SLIKE UPOTREBOM RADIO-INTERFEROMETRA

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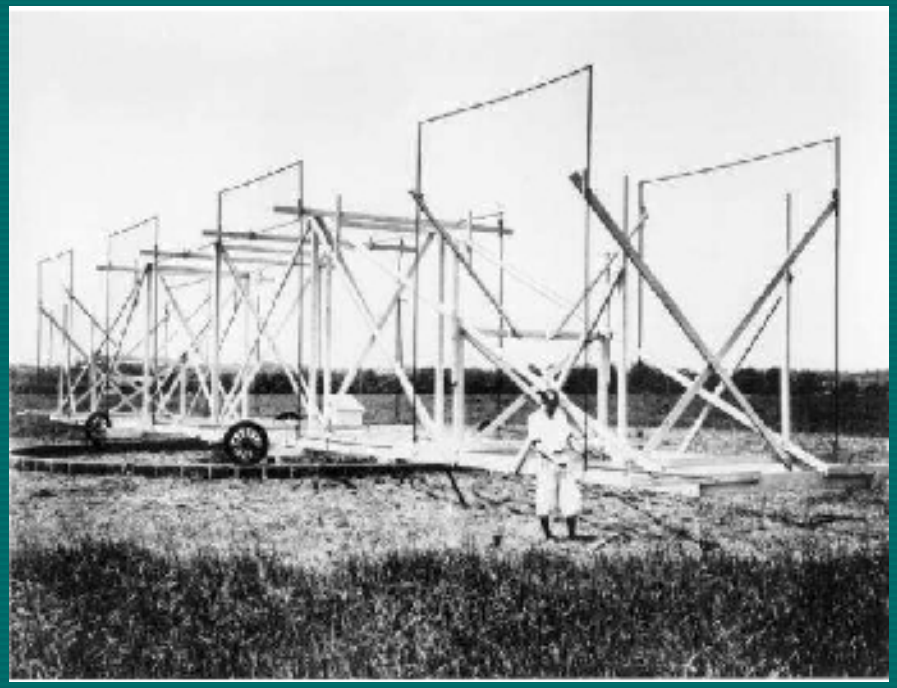
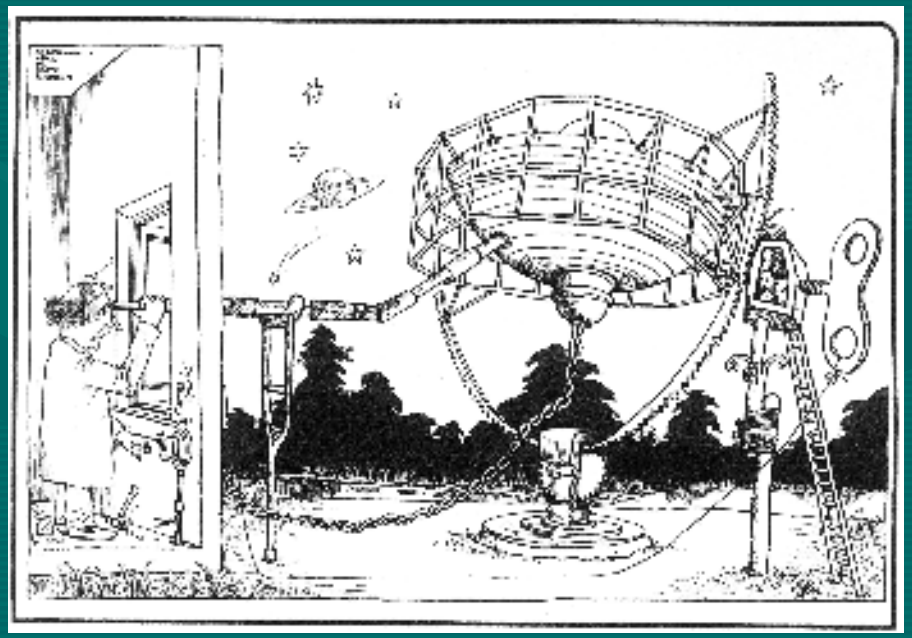
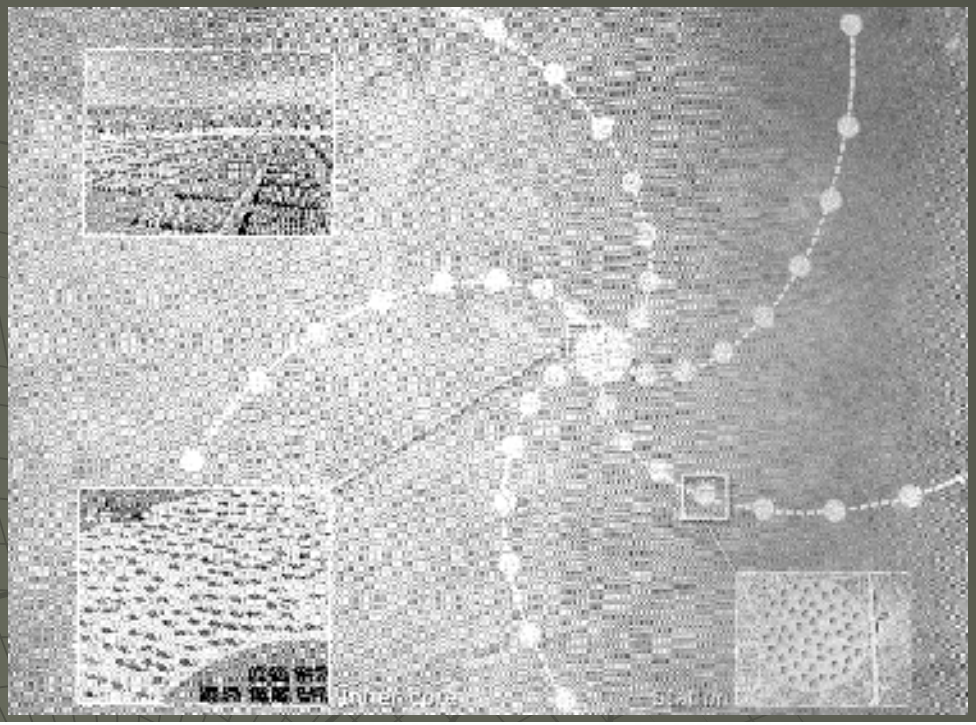
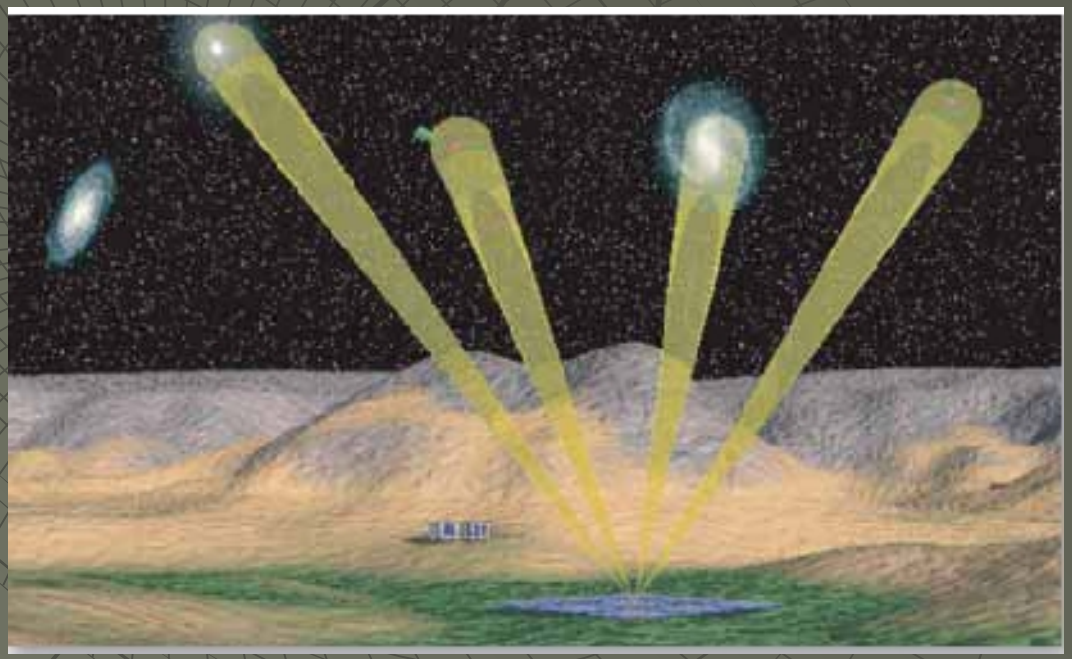
Beograd, oktobar, 2007.

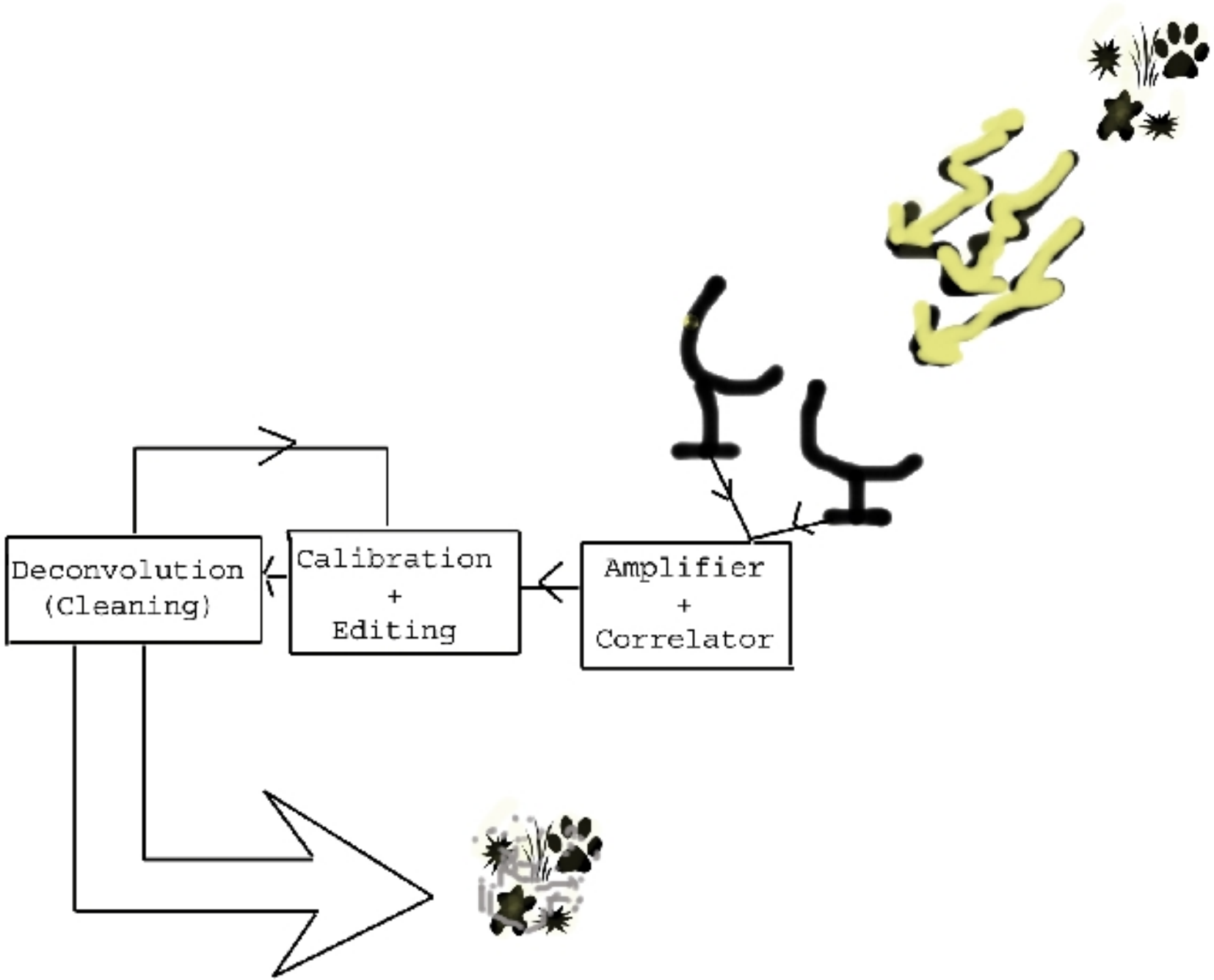


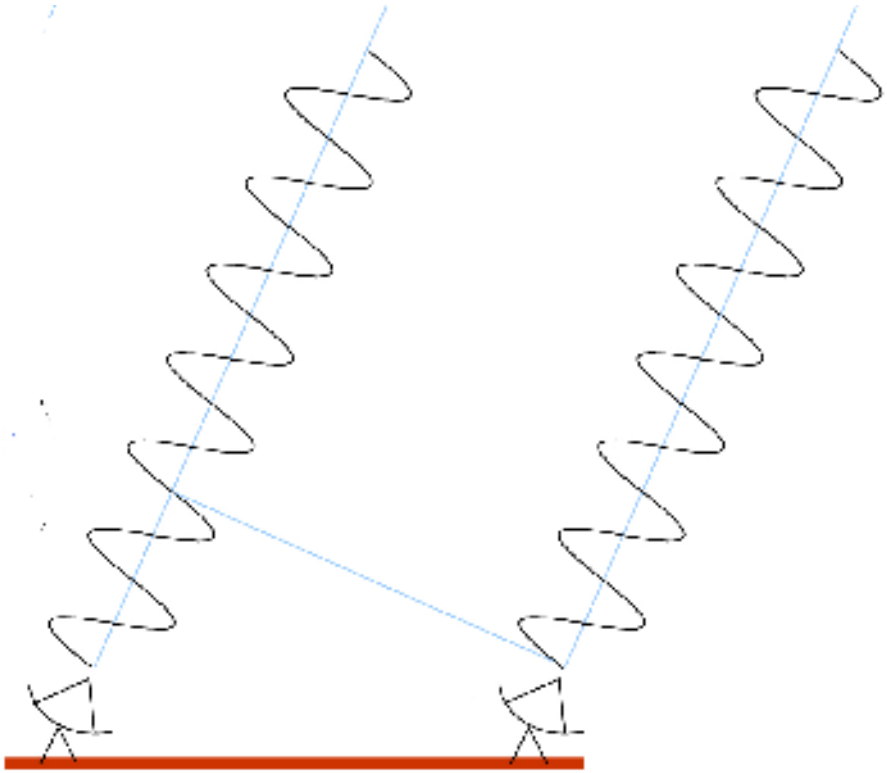


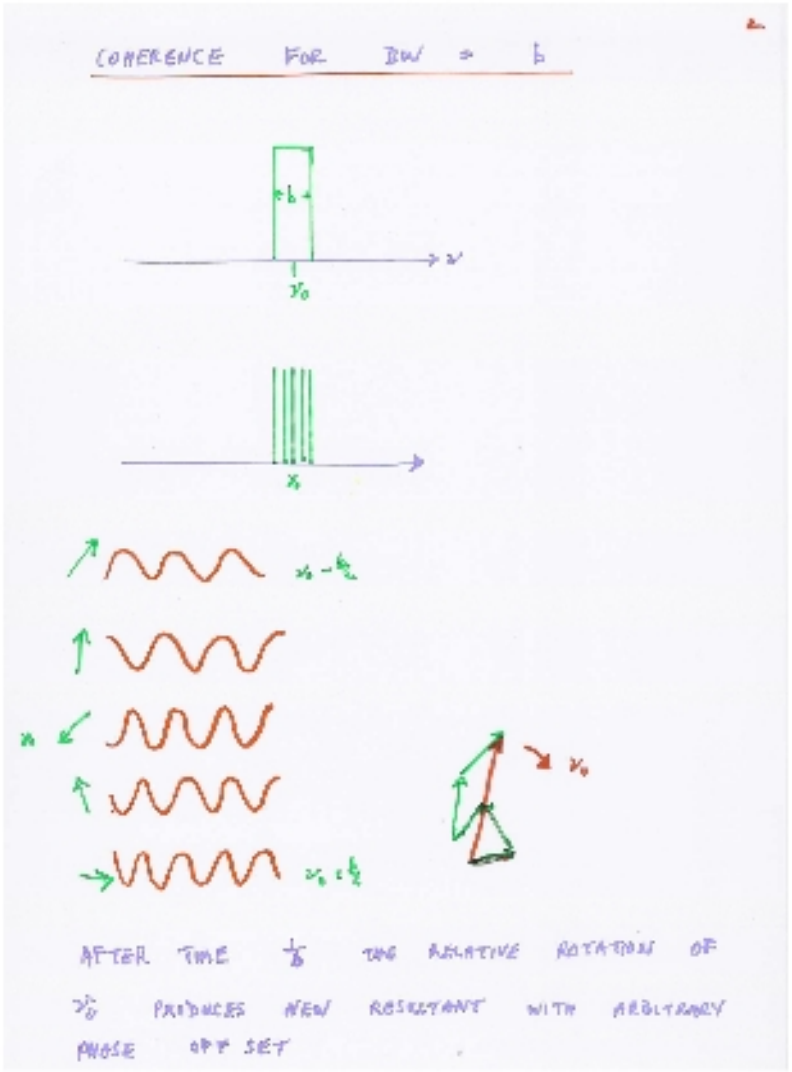
- 1931: Karl Jansky (prvi radio-inženjer-astronom) otkrio radio-zračenje Mlečnog Puta.
- 1946: Smatra se da je Joseph Pawsey (Univerzitet u Sidneju) obavio prva radio-interferometrijska merenja; kasnije iste godine Ryle (englez) i Vonberg su prvi objavili radio-

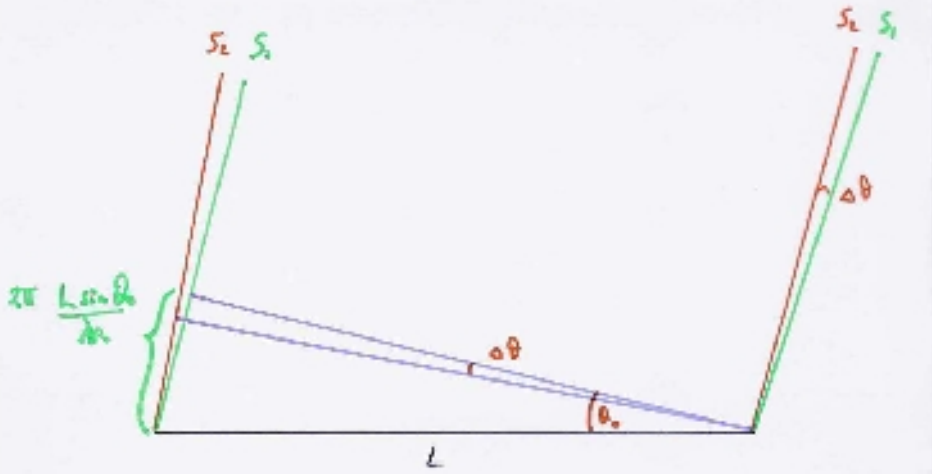





Deconvolution
(Cleaning)
Calibration
+
Editing
Amplifier
+
Correlator




COHERENCE FOR BW > b
b
ν_0
ν
x
$\nu_0 - \frac{1}{b}$
ν_0
$\nu_0 + \frac{1}{b}$
AFTER TIME $\frac{1}{b}$ THE RELATIVE ROTATION OF ν_0 PRODUCES NEW RESULTANT WITH ARBITRARY PHASE OFF SET



PATH COMPENSATION FOR S_1

$$S_2 = S_1$$

UNCOMPENSATED PATH FOR S_2

$$\Delta\phi = \frac{d}{d\theta}\left[\frac{2\pi L \sin\theta_0}{\lambda_R}\right]\Delta\theta$$

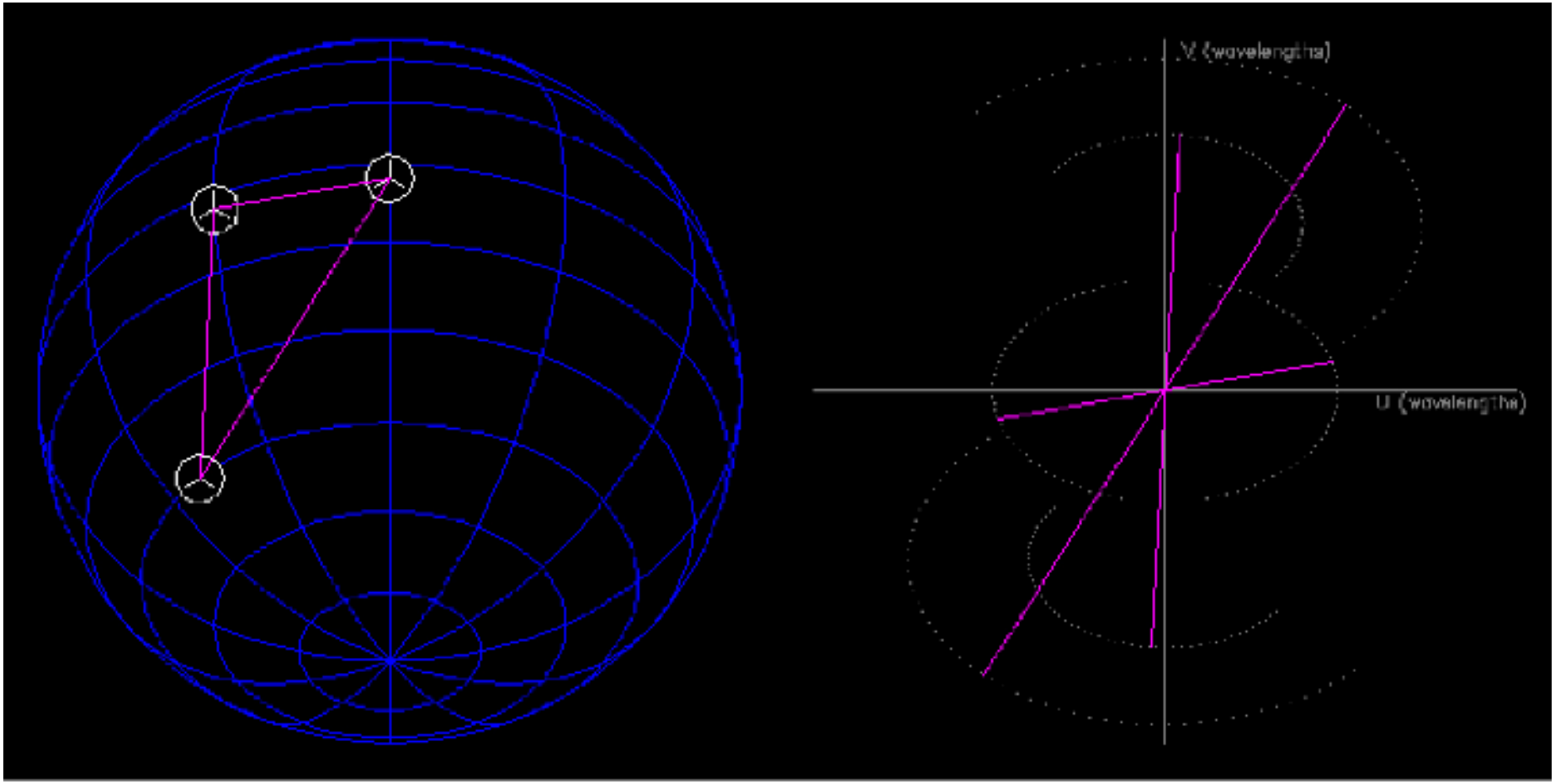
$$\Delta\phi = \frac{2\pi L \cos\theta_0}{\lambda_R} \cdot \Delta\theta$$

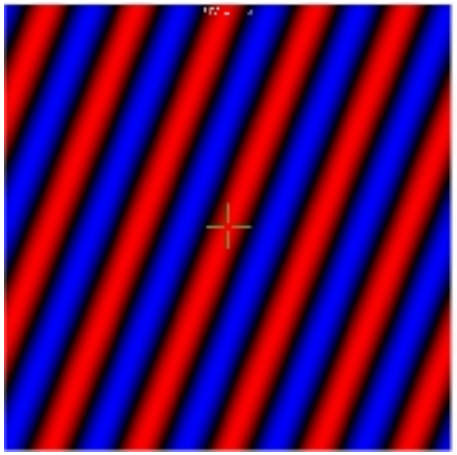
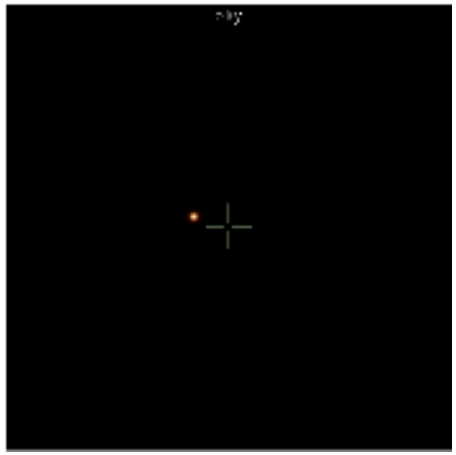
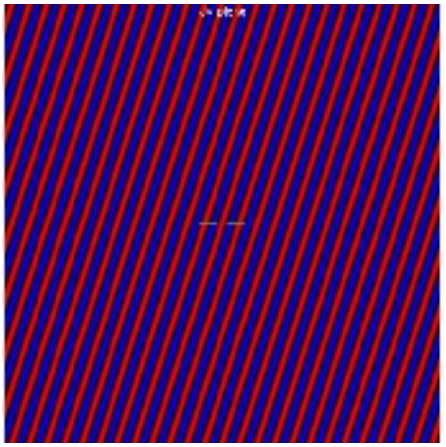
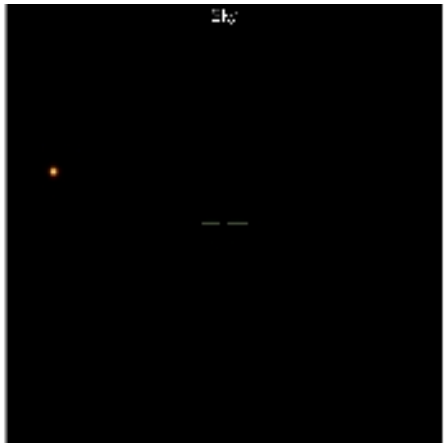
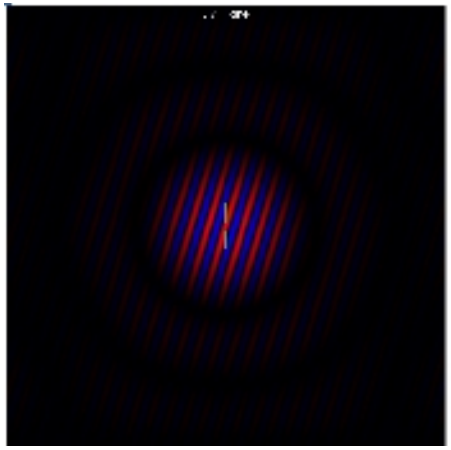
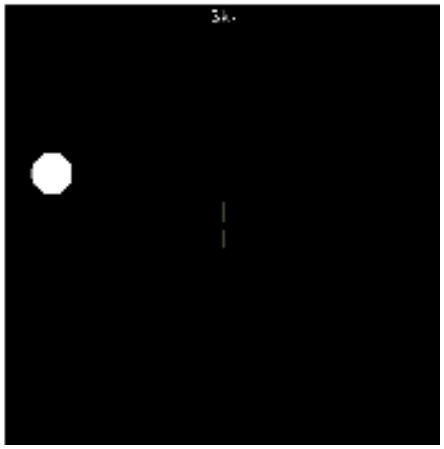
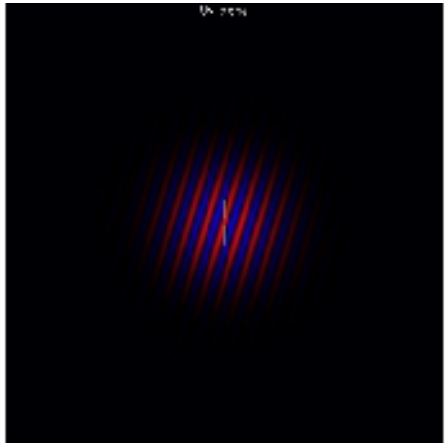
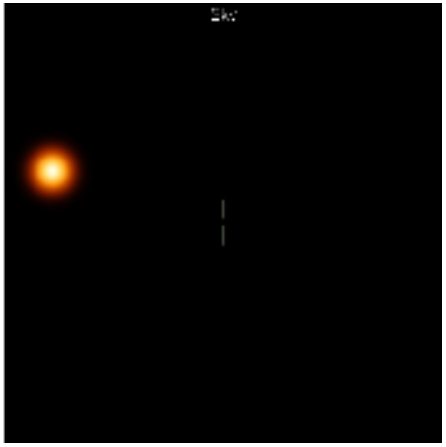
$$\Delta\phi = 2\pi q \cdot \Delta\theta$$

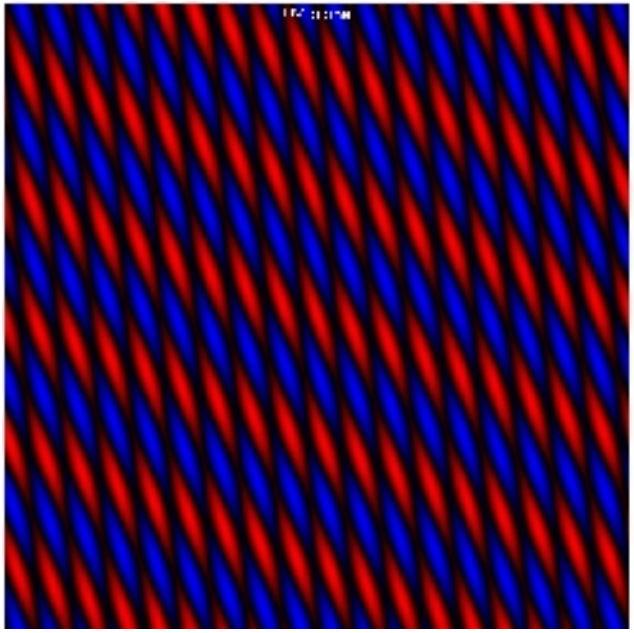
$$q = \frac{L\cos\theta_0}{\lambda_R}$$

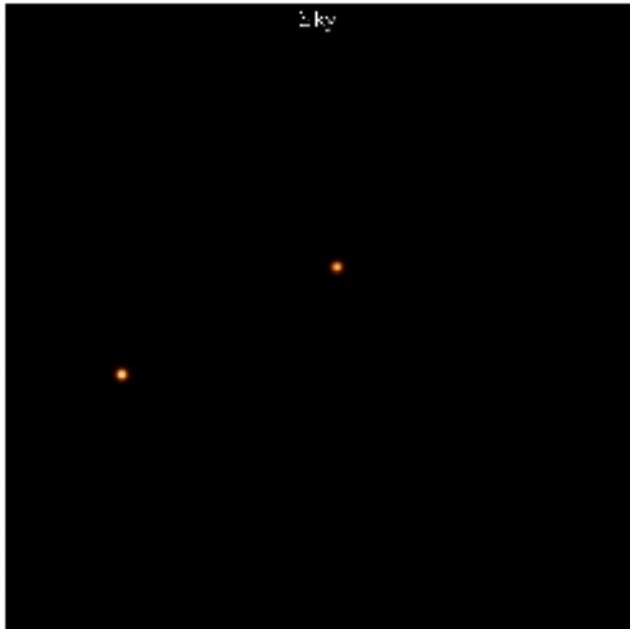
(units: wavelengths)

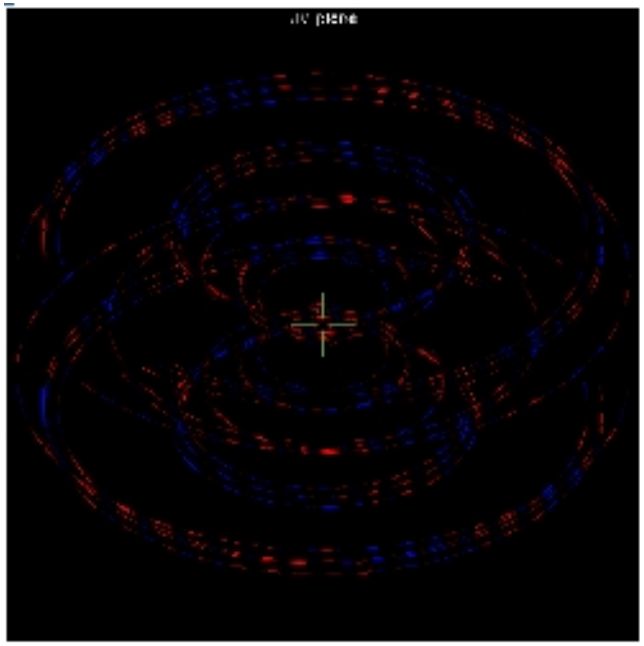
$$S = S_2 e^{i[2\pi q \Delta\theta]}$$

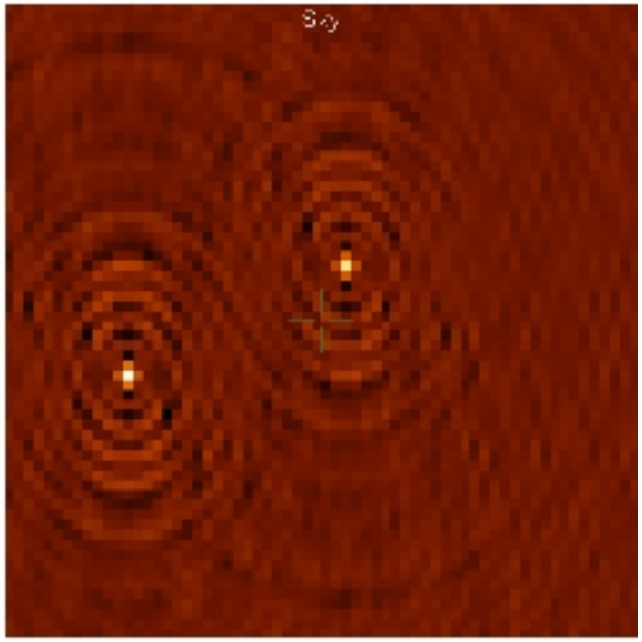

V (wavelengths)
U (wavelengths)







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PITANJA (feedback)

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HVALA !