VLA Beam Squint

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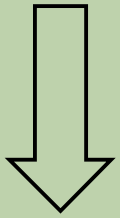
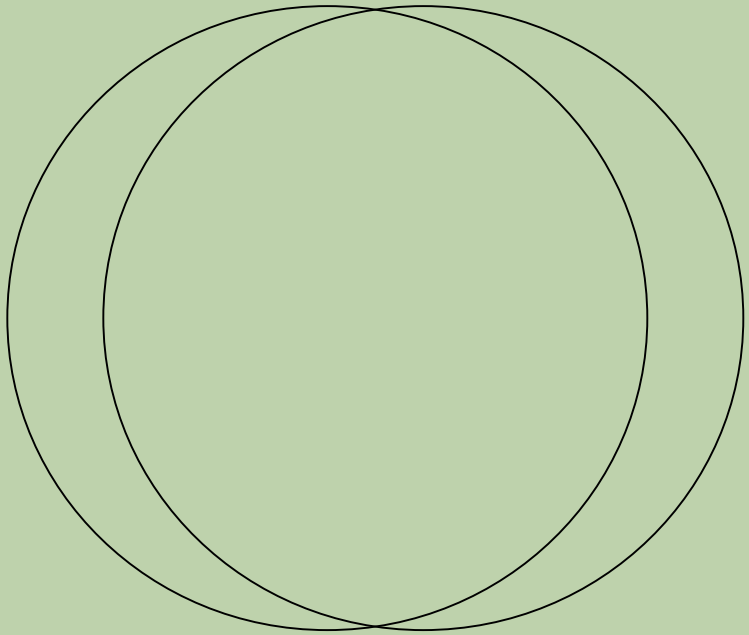
What is Beam Squint?

- Two circular polarized feeds offset from prime focus



- Polarized feeds are out of phase causing beam squint

Beam Squint



VLA Beam Squint

$$P = 4\left(0.5 + \sum_{n=1}^{6} c_n u^n\right)^2$$

$$u = \left\{1.496 \times 10^{-9} \times \left(\frac{25}{2r}\right) \times d \times \nu\right\}^2$$

VLA Beam Squint

$$d_x = \text{squint} \times \left(-\sin(\phi - \chi)\right)$$

$$d_y = \text{squint} \times \left(\cos(\phi - \chi)\right)$$

$$\text{squint} = \pm 237.56 \times \lambda \text{ (arcsec/m)}$$

MeqTrees Script

- Copy Cattery/Siamese/OMS/wsrt_beams.py and example-sim.py to your waterhole
- Rename wsrt_beams.py to vla_beams.py
- add line *import vla_beams* as an E Jones option
- Put our beam equation in vla_beams.py