























$$\sigma_K = \frac{T_{\text{sys}}}{\sqrt{2} dv \Delta t}.$$







$$\pi_{\text{sys}} = \sqrt{\pi_{\text{sys}} \pi_{\text{sys}}}$$





1992

2

100

$$\sigma_K = \frac{T_{\rm sys}}{\eta_{\rm spec} \sqrt{2} dv \Delta t}.$$





$$j_{\text{ant}}^{\text{sd}} = \frac{2k F_{\text{eff}}}{A_{\text{eff}}} ;$$







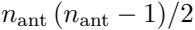
$$\sigma_{Jy} = \frac{J_{\text{ant}}^{\text{sd}} T_{\text{sys}}}{\eta_{\text{spec}} \sqrt{2} dv \Delta t}.$$



$$\sqrt[n]{a_{ij}} = \sqrt[n]{a_{ij}^i a_{ij}^j}$$

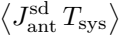


and
all

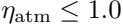




$$\sigma_{\mathrm{Jy}} = \frac{\left(J_{\mathrm{ant}}^{\mathrm{sd}} T_{\mathrm{sys}} \right)}{\eta_{\mathrm{spec}} \sqrt{n_{\mathrm{ant}} \left(n_{\mathrm{ant}} - 1 \right)} dv \Delta t},$$









$$j_{\text{ant}}^{\text{int}} = \frac{j_{\text{ant}}^{\text{sd}}}{\eta_{\text{atm}}}$$

WILLIAM

1871

1871



$$\text{rotation} = e^{-\frac{\phi^2}{2\pi m}} e^{i\pi}$$

$$\sigma_{Jy} = \frac{\langle J_{\text{ant}}^{\text{int}} T_{\text{sys}} \rangle}{\eta_{\text{spec}} \sqrt{n_{\text{ant}} (n_{\text{ant}} - 1)} dv \Delta t}.$$

$$\sigma_{Jy} = \frac{\langle J_{\text{ant}}^{\text{int}} T_{\text{sys}} \rangle}{\eta_{\text{spec}} \sqrt{n_{\text{ant}} (n_{\text{ant}} - 1)} d\nu \Delta t}, \quad \text{with} \quad J_{\text{ant}}^{\text{int}} = \frac{J_{\text{ant}}^{\text{sd}}}{\eta_{\text{atm}}} \quad \text{and} \quad \eta_{\text{atm}} = e^{-\frac{\phi_{\text{rms}}^2}{2}} \leq 1.0,$$



1000

1

1000



NEWBORN





Q

W

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W



$$j_{\text{ant}} = \frac{2k \Omega_{\text{ant}} F_{\text{eff}}}{\lambda^2} \cdot$$

QPR100

$$j_{\rm ant}^{\rm int} = \frac{j_{\rm ant}^{\rm sd}}{\eta_{\rm atm}} = \frac{1}{\eta_{\rm atm}} \frac{F_{\rm eff}}{B_{\rm eff}} \frac{2k\,\Omega_{\rm prim}}{\lambda^2}.$$

QWERTY



2014

—

1

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1000

$$\nu_{\text{syn}} = \frac{2k\Omega_{\text{syn}}}{\lambda^2} \cdot$$

$$\sigma_K = \frac{\sigma_{Jy}}{J_{\text{ant}}^{\text{syn}}} \quad \text{with} \quad J_{\text{ant}}^{\text{syn}} = \frac{2\pi k \theta_{\text{maj}} \theta_{\text{min}}}{4 \ln 2 \lambda^2},$$

$$\sigma_K = \frac{\Omega_{\text{prim}}}{\Omega_{\text{syn}}} \left\langle \frac{F_{\text{eff}} T_{\text{sys}}}{B_{\text{eff}} \eta_{\text{atm}}} \right\rangle \frac{1}{\eta_{\text{spec}} \sqrt{n_{\text{ant}} (n_{\text{ant}} - 1)} d\nu \Delta t} = \frac{\theta_{\text{prim}}^2}{\theta_{\text{maj}} \theta_{\text{min}}} \left\langle \frac{F_{\text{eff}} T_{\text{sys}}}{B_{\text{eff}} \eta_{\text{atm}}} \right\rangle \frac{1}{\eta_{\text{spec}} \sqrt{n_{\text{ant}} (n_{\text{ant}} - 1)} d\nu \Delta t},$$

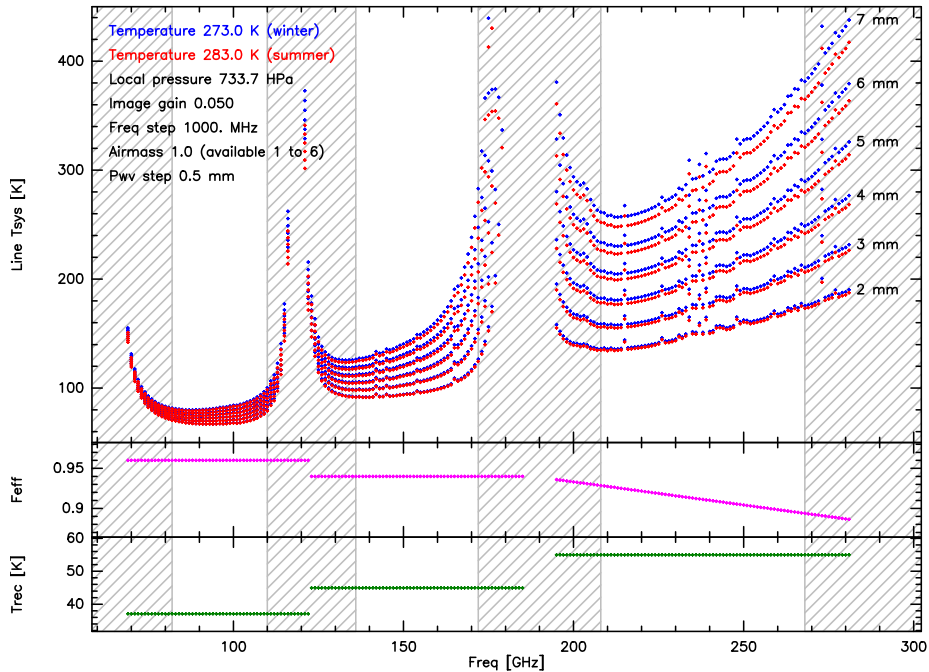
Q. 100

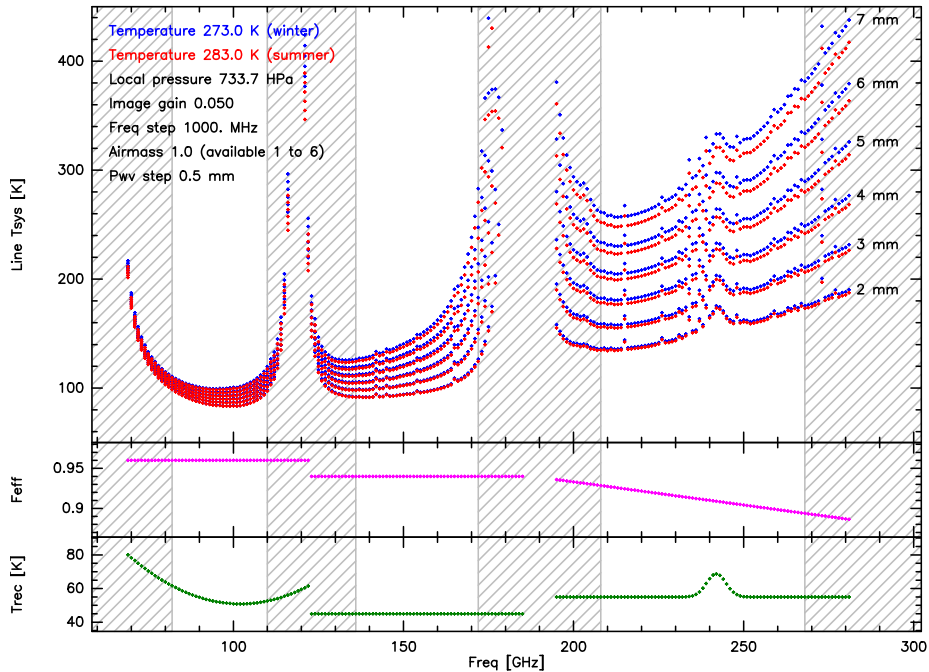


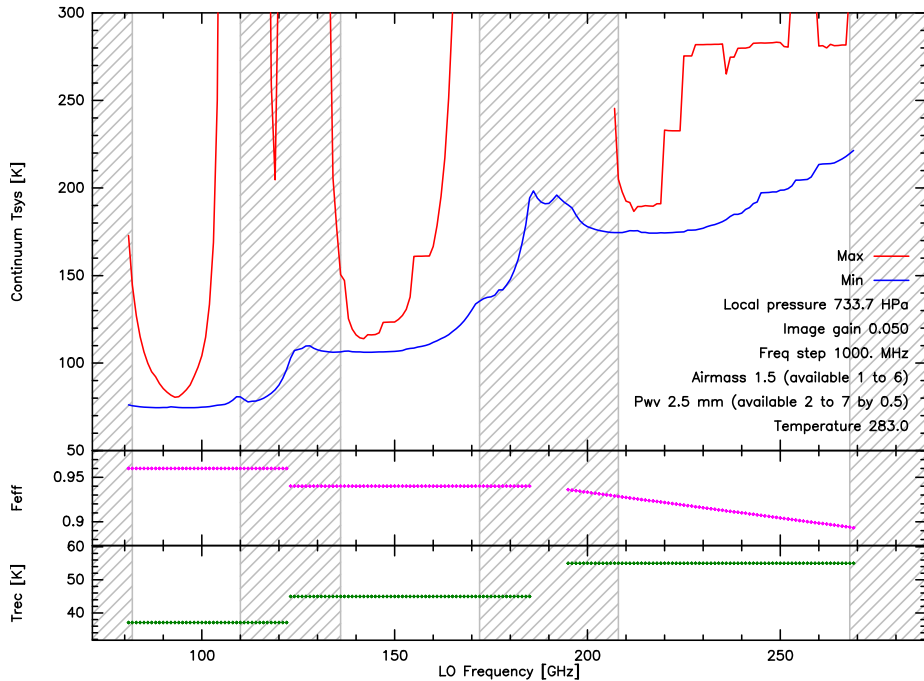


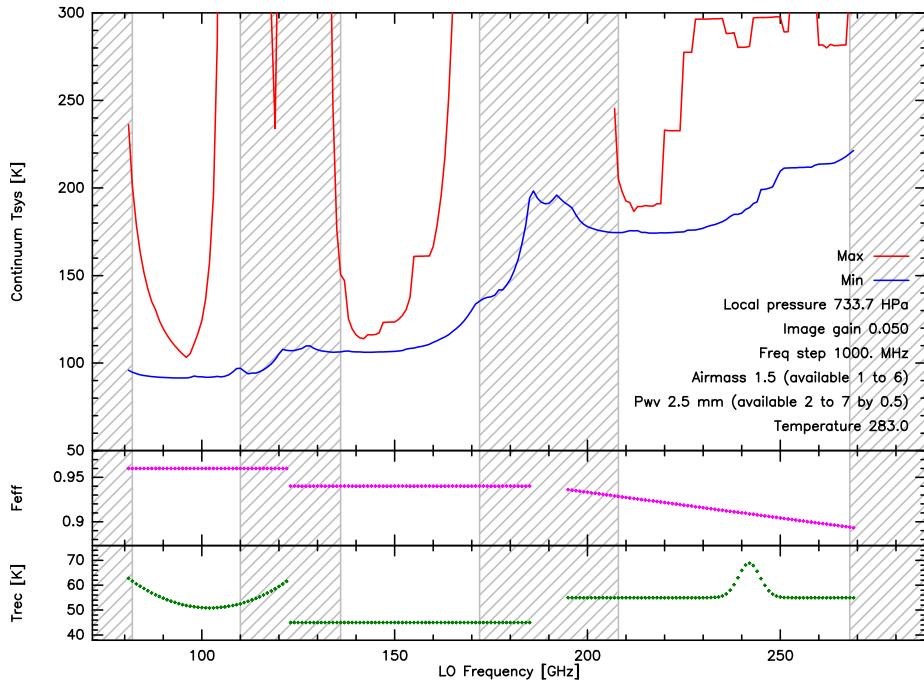
100% 24

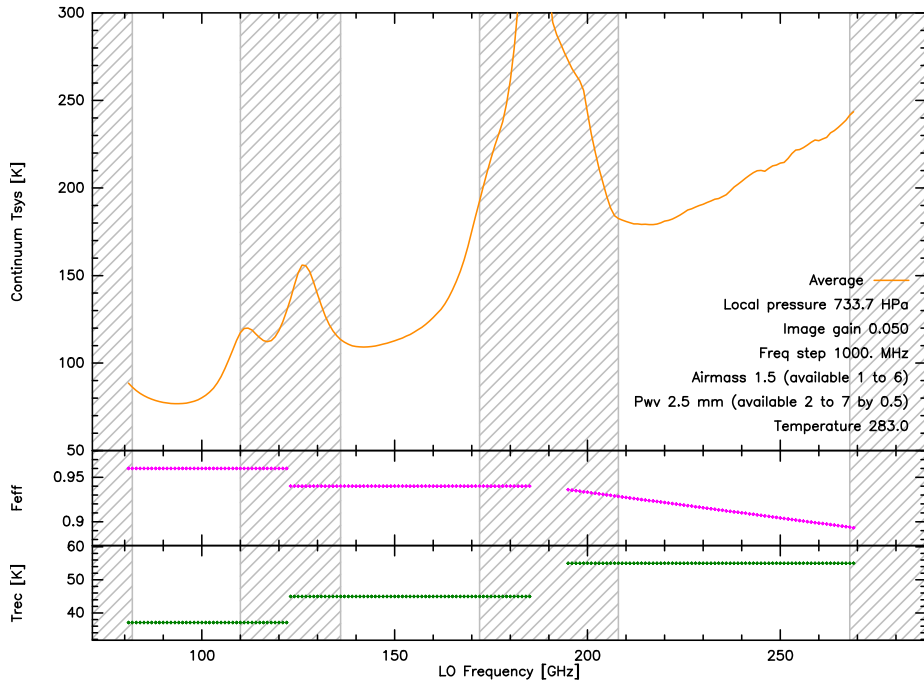


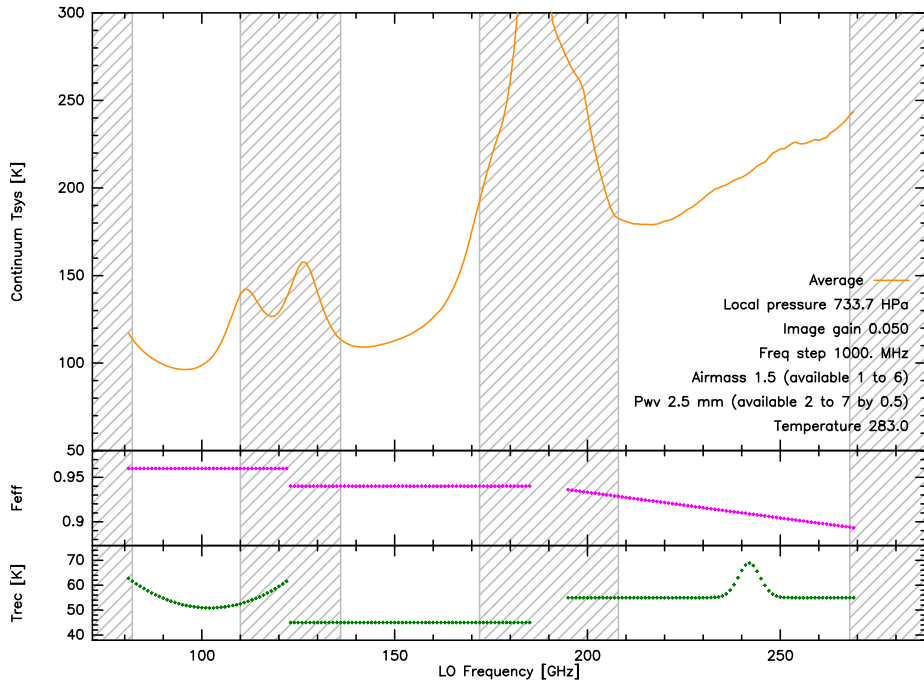












$$T_{sys} = \frac{(1 + G_{im}) \exp \{ \tau_s A \}}{F_{eff}} [F_{eff} T_{atm} (1 - \exp \{ -\tau_s A \}) + (1 - F_{eff}) T_{cab} + T_{rec}] ,$$





Adrianus









$$\frac{1}{\langle T_{\text{sys}} \rangle^2} = \frac{1}{N} \sum \frac{1}{T_{\text{sys}}^2} \cdot$$







$$\sigma_{Jy} = \frac{j_{\rm ant}^{\rm int} T_{\rm sys}}{\eta_{\rm spec} \sqrt{n_{\rm ant} (n_{\rm ant} - 1)} d\nu n_{\rm pol} \Delta t_{\rm on}} .$$

$$\sigma_{Jy} = \frac{j_{\rm ant}^{\rm int} T_{\rm sys}}{\eta_{\rm spec} \sqrt{n_{\rm ant} (n_{\rm ant} - 1)} d\nu n_{\rm pol} \Delta t_{\rm on}} \quad \text{with} \quad j_{\rm ant}^{\rm int} = \frac{j_{\rm ant}^{\rm sd}}{\eta_{\rm atm}} \quad \text{and} \quad \eta_{\rm atm} = e^{-\frac{\phi_{\rm rms}^2}{2}} \leq 1.0,$$

$$\sigma_K = \frac{\sigma_{Jy}}{J_{\text{ant}}^{\text{syn}}} \quad \text{with} \quad J_{\text{ant}}^{\text{syn}} = \frac{2\pi k \theta_{\text{maj}} \theta_{\text{min}}}{4 \ln 2 \lambda^2}.$$





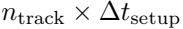


$$\Delta t_{\text{setup}} = \Delta t_{\text{setupmin}} + (n_{\text{freq}} - 1) \Delta t_{\text{setup}} / \text{freq};$$

UCLA
Engineering

△✱welcome to the world





100%

$$\Delta t_{obs} = \Delta t_{tel} - n_{track} \times \Delta t_{setup}.$$

$$n_{\text{track}} = \frac{\Delta t_{\text{tel}}}{\Delta t_{\text{visible}} + \Delta t_{\text{setup}}},$$



0.95

[illegible]

2019

10000000

△ + △ visible + △ +

Δt_{on}

$=$

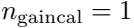
Δt_{obs}

$\times$

η_{obs}

A pixelated, grayscale image of the text "100%". The first "100%" is small and positioned on the left. To its right is a large, stylized "100%" that dominates the right half of the image. The characters are composed of various shades of gray and black pixels, giving it a low-resolution, digital-art appearance. The background is white.





$$\eta_{\text{obs}} = \frac{1}{\Omega_{\text{obs}}} \quad \text{with} \quad \Omega_{\text{obs}} = \Omega_{\text{min}} + n_{\text{gaincal}} n_{\text{freq}} \Omega_{\text{/freq/gaincal}}, \quad \Omega_{\text{min}} = 1.3, \quad \text{and} \quad \Omega_{\text{/freq/gaincal}} = 0.3.$$



Uppercase and lowercase letters, numbers, and symbols.

100%

100%

100%

2020-2021

opinion



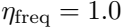
$$\eta_{\text{tot}} = \frac{\Sigma \Delta t_{\text{on}}}{\Delta t_{\text{tel}}}$$

WORLD OF

$$\sigma_{Jy} = \frac{j_{\rm ant}^{\rm int} T_{\rm sys}}{\eta_{\rm spec} \sqrt{n_{\rm ant} (n_{\rm ant} - 1)} dv n_{\rm pol} \Delta t_{\rm on}},$$

$$\Delta t_{on} = \eta_{obs} \eta_{freq} (\Delta t_{tel} - n_{track} \times \Delta t_{setup}) ,$$









$$\sigma_{Jy} = \frac{j_{\text{ant}}^{\text{int}} T_{\text{sys}}}{\eta_{\text{spec}} \sqrt{n_{\text{ant}} (n_{\text{ant}} - 1)} dv n_{\text{pol}} \Delta t_{\text{on}}}$$

$$\Delta t_{\text{on}} = \eta_{\text{obs}} \eta_{\text{freq}} \left(\frac{\Delta t_{\text{tel}} - n_{\text{track}} \times \Delta t_{\text{setup}}}{n_{\text{sou}}} \right) .$$



$$n_{\text{beam}} = \frac{A_{\text{map}}}{A_{\text{beam}}}$$

1990



$$A_{\text{beam}} = \frac{0.8 \pi \theta_{\text{prim}}^2}{4 \ln(2)} ,$$

$$\sigma_{Jy} = \frac{j_{\text{ant}}^{\text{int}} T_{\text{sys}}}{\eta_{\text{spec}} \sqrt{n_{\text{ant}} (n_{\text{ant}} - 1)} dv n_{\text{pol}} \Delta t_{\text{on}}}$$

$$\Delta t_{\text{on}} = \eta_{\text{obs}} \eta_{\text{mos}} \left(\frac{\Delta t_{\text{tel}} - n_{\text{track}} \times \Delta t_{\text{setup}}}{n_{\text{beam}}} \right), \quad \text{and} \quad \eta_{\text{mos}} = \frac{\Delta t_{\text{point/cycle}}}{\Delta t_{\text{point/cycle}} + \Delta t_{\text{slew}}},$$

penitence

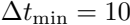
1991



$$n_{\text{point}} = n_{\text{beam}} \left(\frac{7}{4} \right)^2,$$

Winnipeg

Winnipeg





$$\frac{\Delta t_{\text{int}}/\text{scan}}{1\text{s}} < < \frac{6900}{\theta_{\text{alias}}/\theta_{\text{syn}}},$$

Q112

QWID

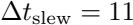
$$\Delta t_{\text{int}/\text{scan}} \leq \eta \frac{6900}{1\text{sec}} \sqrt{\frac{\theta_{\text{maj}}\theta_{\text{min}}}{A_{\text{map}}}},$$



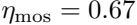




$$\leq \Delta t_{\text{int}/\text{scan}} = \min \left(45 \text{ sec}, \eta \frac{6\,900}{1 \text{ sec}} \sqrt{\frac{\theta_{\text{maj}} \theta_{\text{min}}}{A_{\text{map}}}} \right) \quad \text{with} \quad \eta = 0.5.$$



A pixelated, black and white graphic of the text "The End of the World". The text is rendered in a highly stylized, jagged, and somewhat abstract font. The letters are composed of many small, dark pixels, giving it a grainy, digital appearance. The overall shape of the text is elongated and horizontal, with the words "The", "End", "of", and "the World" clearly distinguishable despite the pixelation. The background is white, and the text itself is a dark gray or black.





1990-1991

$$\eta_{\text{mos}} = \frac{\Delta t_{\text{point/cycle}}}{\Delta t_{\text{point/cycle}} + \Delta t_{\text{slew}}}$$

$$\Delta t_{\text{cycle}} = \Delta t_{\text{point/track}} (\Delta t_{\text{point/cycle}} + \Delta t_{\text{slw}}),$$

$\Delta t_{\text{point/cycle}} = \sqrt{\text{repeat}} \cdot t_{\text{point/cycle}} \cdot \Delta t_{\text{acc}}$

A pixelated, black and white graphic of the word "WELCOME" in a stylized, blocky font. The letters are composed of various shades of gray and black pixels, giving it a retro, digital appearance. The "W" is particularly large and prominent on the left. The overall style is reminiscent of early computer graphics or video game titles.

$$n_{\text{repeat/point/cycle}}^{\text{max}} = \frac{\Delta t_{\text{calmax}}/n_{\text{point/track}} - \Delta t_{\text{slew}}}{\Delta t_{\text{int/scan}}},$$

$$\eta_{\text{mos}} = 1 - \frac{n_{\text{point}} / \text{track} \Delta t_{\text{slew}}}{\Delta t_{\text{calmax}}}.$$

$$n_{\text{point/track}}^{\text{large}} = \text{floor} \left(\frac{\Delta t_{\text{calmax}}}{\Delta t_{\text{int/scan}} + \Delta t_{\text{slew}}} \right).$$

1991-2000

$$n_{\text{point}/\text{track}}^{\text{max}} = \frac{\Delta t_{\text{cyclenmax}}}{\Delta t_{\text{min}} + \Delta t_{\text{slew}}} \sim 150.$$

$$\Delta t_{\text{int/scan}} = \min \left\{ \Delta t_{\text{int/scan}}, \left(\frac{\Delta t_{\text{cyclmax}}}{n_{\text{point/track}}} - \Delta t_{\text{slew}} \right) \right\}.$$

$$\eta_{\min} = \frac{\Delta t_{\min}}{\Delta t_{\min} + \Delta t_{\text{slew}}} = 0.47.$$

$$n_{\text{beam}} = \frac{A_{\text{map}}}{A_{\text{beam}}}, \quad \text{where} \quad A_{\text{beam}} = \frac{0.8 \pi \theta_{\text{prim}}^2}{4 \ln(2)}.$$

$$n_{\text{point}} = n_{\text{beam}} \left(\frac{7}{4}\right)^2, \quad \text{and} \quad n_{\text{point}/\text{track}} = \min\left(n_{\text{point}}, \frac{n_{\text{point}}}{n_{\text{track}}}\right).$$

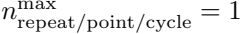
$$10 \text{ sec} \leq \Delta t_{\text{int/scan}} = \min \left(45 \text{ sec}, \eta \frac{6900}{1 \text{ sec}} \sqrt{\frac{\theta_{\text{maj}} \theta_{\text{min}}}{A_{\text{map}}}} \right) \quad \text{with} \quad \eta = 0.5.$$

$$n_{\text{point/track}}^{\text{large}} = \text{floor} \left(\frac{\Delta t_{\text{calmax}}}{\Delta t_{\text{int/scan}} + \Delta t_{\text{slew}}} \right), \quad \text{where} \quad \Delta t_{\text{slew}} = 11 \text{ sec}, \quad \text{and} \quad \Delta t_{\text{calmax}} = 25 \text{ min}.$$

$\left(\text{point/track} \right) \leq \left(\text{large point/track} \right)$

$$n_{\text{repeat/point/cycle}}^{\text{max}} = \frac{\frac{\Delta t_{\text{calmax}}}{n_{\text{point/track}}} - \Delta t_{\text{slew}}}{\Delta t_{\text{int/scan}}}.$$

$\left(\frac{\text{point}}{\text{track}} \right) \rightarrow \left(\frac{\text{large}}{\text{point}} \right) \frac{\text{track}}{\text{track}}$



$$n_{\text{point/track}} \leq n_{\text{point/track}}^{\text{max}}, \quad \text{where} \quad n_{\text{point/track}}^{\text{max}} = \frac{\Delta t_{\text{cyclemax}}}{\Delta t_{\text{min}} + \Delta t_{\text{slew}}} \sim 150, \quad \text{and} \quad \Delta t_{\text{cyclemax}} = 60 \text{ min.}$$

$$\text{if } n_{\text{point/track}} > n_{\text{point/track}}^{\text{large}}, \quad \text{then } \Delta t_{\text{int/scan}} = \min \left\{ \Delta t_{\text{int/scan}}, \left(\frac{\Delta t_{\text{cyclemax}}}{n_{\text{point/track}}} - \Delta t_{\text{slew}} \right) \right\}.$$

$$\eta_{\text{mos}} = \frac{\Delta t_{\text{point/cycle}}}{\Delta t_{\text{point/cycle}} + \Delta t_{\text{slew}}}, \quad \text{and} \quad \Delta t_{\text{point/cycle}} = n_{\text{repeat/point/cycle}}^{\text{max}} \Delta t_{\text{int/scan}},$$

$$\Delta t_{\text{cycle}} = n_{\text{point/track}} (\Delta t_{\text{point/cycle}} + \Delta t_{\text{slew}}).$$

$$\sigma_{\text{Jy}} = \frac{J_{\text{ant}}^{\text{int}} T_{\text{sys}}}{\eta_{\text{spec}} \sqrt{n_{\text{ant}} (n_{\text{ant}} - 1)} d\nu n_{\text{pol}} \Delta t_{\text{on}}}, \quad \text{and} \quad \Delta t_{\text{on}} = \eta_{\text{obs}} \eta_{\text{mos}} \left(\frac{\Delta t_{\text{tel}} - n_{\text{track}} \times \Delta t_{\text{setup}}}{n_{\text{beam}}} \right).$$



$$\sigma_{Jy,\text{point}}(\nu) = \frac{J_{\text{ant}}^{\text{int}}(\nu) T_{\text{sys}}(\nu)}{\eta_{\text{spec}} \sqrt{n_{\text{ant}}(n_{\text{ant}} - 1)} d\nu n_{\text{pol}} \Delta t_{\text{on,point}}},$$

$$\Delta t_{\text{on, point}} = \eta_{\text{obs}} \eta_{\text{mos}} \left(\frac{\Delta t_{\text{tel}} - n_{\text{track}} \times \Delta t_{\text{setup}}}{n_{\text{point}}} \right).$$

1992



$$f_v(p) = \left[\sum_{i=1}^{n_{\text{point}}} B_i^2(p, v) \right]^{-1/2}.$$

опыта, в том числе
— опыта, в том числе

$$\sigma_{\text{Jy,mos}}(p, \nu) = \frac{J_{\text{ant}}^{\text{int}}(\nu) T_{\text{sys}}(\nu)}{\eta_{\text{spec}} \sqrt{n_{\text{ant}} (n_{\text{ant}} - 1)} d\nu n_{\text{pol}} \Delta t_{\text{on,point}}} \left[\sum_{i=1}^{n_{\text{point}}} B_i^2(p, \nu) \right]^{-1/2}.$$

As a *wp* is not *blabla*.

of my wife's
medial prefrontal
cortex.

Opportunity is a
= Opportunity is a

f = independent variable



Oxytropis, *Oxytropis*, *Oxytropis*

Approved
Valid
Date

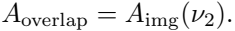
Alvin

Alvin









$$P_{1n2/1} = 100 \frac{A_{\text{img}}(v_2)}{A_{\text{img}}(v_1)}, \quad P_{1n2/2} = 100\%.$$

$$n_{\text{beam,geom}}(\nu) = \frac{A_{\text{img}}(\nu)}{A_{\text{beam}}(\nu)}.$$

$$n_{\text{beam,eq}}(v) = n_{\text{point}} f^2_v.$$



WELCOME TO THE

$$f_{\nu}(p) = \frac{1}{\sqrt{\sum_{i=1}^{n_{\text{point}}} B_{i,\nu}^2(p)}}.$$

Erwählter

$\text{Aimg}(v) = \text{Nvalid}(v) \text{Opix}$

$$f_v = \max_{p \in A_v} [f_v(p)],$$





A_{map}



$A_{img}(v)$

$$n_{\text{point}} = \text{number of pointings in the PMS pointing list, and } n_{\text{point/track}} = \min \left(n_{\text{point}}, \frac{n_{\text{point}}}{n_{\text{track}}} \right).$$

$$n_{\text{point}} = n_{\text{beam}} \left(\frac{7}{4} \right)^2$$

$$\Delta t_{\text{on, point}} = \eta_{\text{obs}} \eta_{\text{mos}} \left(\frac{\Delta t_{\text{tel}} - n_{\text{track}} \times \Delta t_{\text{setup}}}{n_{\text{point}}} \right),$$

$$\sigma_{Jy,point}(\nu) = \frac{J_{ant}^{int}(\nu) T_{sys}(\nu)}{\eta_{spec} \sqrt{n_{ant} (n_{ant} - 1)} d\nu n_{pol} \Delta t_{on,point}} .$$

$$\sigma_{j_{y,\text{typ}}}(v) = \sigma_{j_{y,\text{point}}}(v) \tilde{f}_v.$$

$$n_{\text{beam},\text{eq}}(v) = n_{\text{point}} f^2_v.$$









$$\Omega_{\text{ant}}(\nu) = \int_{4\pi} P_{\text{ant}}(\theta, \phi, \nu) d\Omega,$$







airbnb

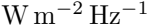


$$\Omega_{\text{fb}}(\nu) = \int_{2\pi} P_{\text{ant}}(\theta, \phi, \nu) d\Omega, \quad \text{and} \quad \Omega_{\text{mb}}(\nu) = \int_{\text{main lobe}} P_{\text{ant}}(\theta, \phi, \nu) d\Omega.$$

$$F_{\text{eff}} = \frac{\Omega_{\text{fb}}}{\Omega_{\text{ant}}}, \quad \text{and} \quad B_{\text{eff}} = \frac{\Omega_{\text{mb}}}{\Omega_{\text{ant}}}.$$

$$F_{\text{sou}}(\nu) = \int_{\text{source}} B(\theta, \phi, \nu) d\Omega,$$











$$F_{\text{obs}}(\theta_0, \phi_0, \nu) = \int_{\text{source}} B(\theta, \phi, \nu) P_{\text{ant}}(\theta - \theta_0, \phi - \phi_0, \nu) d\Omega,$$



$$F_{\text{obs}}(\theta_0, \phi_0, \nu) = \int_{\text{source}} B(\theta, \phi, \nu) \tilde{P}_{\text{ant}}(\theta_0 - \theta, \phi_0 - \phi, \nu) d\Omega,$$

$$P_{\text{int}}(\theta_0 - \theta, \phi_0 - \phi, v) = P_{\text{int}}(\theta - \theta_0, \phi - \phi_0, v).$$

$$B_{\text{obs}}(\theta_0, \phi_0, \nu) = \frac{1}{\Omega} \int_{\text{source}} B(\theta, \phi, \nu) \tilde{P}_{\text{ant}}(\theta_0 - \theta, \phi_0 - \phi, \nu) d\Omega,$$









1990-1991

$$= \frac{1}{\Omega_{\text{ant}}} \int_{\text{source}} B(\theta, \phi, \nu) \tilde{P}_{\text{ant}}(\theta_0 - \theta, \phi_0 - \phi, \nu) d\Omega,$$

1990s pop psychology

$$= \frac{1}{\Omega_{\text{fb}}} \int_{\text{source}} B(\theta, \phi, \nu) \tilde{P}_{\text{ant}}(\theta_0 - \theta, \phi_0 - \phi, \nu) d\Omega,$$

Beethoven's Op. 10, No. 1

$$= \frac{1}{\Omega_{\text{mb}}} \int_{\text{source}} B(\theta, \phi, \nu) \tilde{P}_{\text{ant}}(\theta_0 - \theta, \phi_0 - \phi, \nu) d\Omega.$$

$$B_{fb} = \frac{1}{F_{eff}} B_{ant} \quad \text{and} \quad B_{mb} = \frac{F_{eff}}{B_{eff}} B_{fb}.$$

overlapping
= overlapping



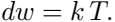












$$T_{\text{mb}}(\theta_0, \phi_0, \nu) = \frac{1}{\Omega_{\text{mb}}} \int_{\text{source}} B(\theta, \phi, \nu) \tilde{P}_{\text{ant}}(\theta_0 - \theta, \phi_0 - \phi, \nu) d\Omega.$$





13059x1021

$$d\nu(\theta_0, \phi_0, \nu) = \frac{1}{2} A_{\text{eff}} \int_{\text{source}} B(\theta, \phi, \nu) \tilde{P}_{\text{ant}}(\theta_0 - \theta, \phi_0 - \phi, \nu) d\Omega.$$





$$\eta_{\text{ant}} = \frac{A_{\text{eff}}}{A_{\text{geo}}} < 1;$$

$$A_{geo} = \pi \left(\frac{D_{ant}}{2} \right)^2 \cdot$$

$$\text{Aeff}(v) \text{ quant}(v) = \lambda^2,$$

$$B(\theta, \phi, \nu) = \frac{2kT}{\lambda^2},$$

$$d\nu(\theta_0, \phi_0, \nu) = \frac{1}{2} A_{\text{eff}} \int_{\text{source}} B(\theta, \phi, \nu) \tilde{P}_{\text{ant}}(\theta_0 - \theta, \phi_0 - \phi, \nu) d\Omega = \frac{1}{2} A_{\text{eff}} \Omega_{\text{ant}}(\nu) \frac{2kT}{\lambda^2}.$$

www.loveis.org



$$A_{\text{eff}}(\nu)\Omega_{\text{fb}}(\nu)=\lambda^2 F_{\text{eff}}(\nu) \text{ and } A_{\text{eff}}(\nu)\Omega_{\text{mb}}(\nu)=\lambda^2 B_{\text{eff}}(\nu).$$

$$B_{\text{eff}}(v) = \eta_{\text{ant}} A_{\text{geo}} \frac{\Omega_{\text{mb}}(v)}{\lambda^2} \cdot$$

$$A_{\mathrm{geo}} = \frac{\pi}{4} D^2, \quad \frac{\Omega_{\mathrm{mb}}(\nu)}{\lambda^2} = \frac{\pi}{4 \ln 2} \left(\frac{\theta_{\mathrm{mb}}}{\lambda} \right)^2,$$

$$\theta_{mb} = \alpha \frac{\lambda}{D},$$

$$B_{\text{eff}}(\nu) = \frac{\pi^2}{16 \ln 2} a^2 \eta_{\text{ant}}(\nu) \simeq 0.88899 a^2 \eta_{\text{ant}}(\nu).$$







$$\eta_{\text{ant}}(\nu) = \eta_{\text{ant}}^0 \exp \left\{ - \left(\frac{4\pi\sigma}{\lambda} \right)^2 \right\}.$$

Band 1

Band 3

