









responsible for the







1

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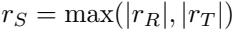






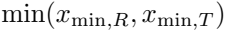




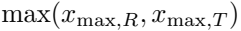




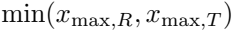












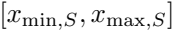


$$N_s = \text{int}\left(\frac{x_{\max,s} - x_{\min,s}}{r_s} + 1.5\right);$$















Averaged channel intensity and weight (aligned spectra):

$$T_S(i) = \frac{w_R(i) \times T_R(i) + w_T(i) \times T_T(i)}{w_R(i) + w_T(i)} \quad (1)$$

$$w_S(i) = w_R(i) + w_T(i) \quad (2)$$



















WAVELENGTHS

$$\text{pdf}_R(x) = \frac{1}{\sigma_R \sqrt{2\pi}} \exp\left(-\frac{(x - \mu_R)^2}{2\sigma_R^2}\right)$$





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ECONOMICS
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W R E

$$w_R(i) = \frac{1}{\sigma_R(i)^2}$$

Resampled channel intensity (all weights):

$$T_{R'}(i) = \frac{\sum_{j=j_{\min}}^{j_{\max}} f_R(j) \times w_R(j) \times T_R(j)}{\sum_{j=j_{\min}}^{j_{\max}} f_R(j) \times w_R(j)} \quad (3)$$







0 1 2 3 4 5 6 7





$$\beta = \sum_{j=j_{\min}}^{j_{\max}} f_R(j) \times w_R(j)$$

$$o_R(\omega) = \frac{f_R(\omega) \times w_R(\omega)}{\rho}$$

1900

$$T_{R'}(i) = \sum_{j=j_{\min}}^{j_{\max}} a_R(j) \times T_R(j)$$

WORLD

WIRTSCHAFTS

$$\text{var} \left(\sum_{j=j_{\min}}^{j_{\max}} \alpha_R(j) \times T_R(j) \right)$$

$$\sum_{j=j_{\min}}^{j_{\max}} \alpha_R(j)^2 \times \text{var} \left(T_R(j) \right)$$

$$\frac{1}{\beta^2} \sum_{j=j_{\min}}^{j_{\max}} f_R(j)^2 w_R(j)$$

$$\text{var}(aX + b) = a^2 \text{var}(X) + b^2 \text{var}(1)$$









Resampled channel weight (weights TIME and SIGMA):

$$w_{R'}(i) = \frac{\left(\sum_{j=j_{\min}}^{j_{\max}} f_R(j) w_R(j) \right)^2}{\sum_{j=j_{\min}}^{j_{\max}} f_R(j)^2 w_R(j)} \quad (4)$$







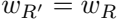






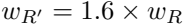


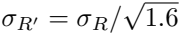
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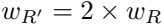


A pixelated, black and white graphic of the text "WAVELENGTH". The letters are thick and blocky, with a jagged, pixelated edge. The 'W' and 'L' are particularly prominent. The 'A' has a horizontal bar that is slightly offset. The 'E' has a distinct horizontal bar. The 'G' is rounded. The 'H' is composed of two vertical bars and a horizontal bar. The 'T' is a simple vertical bar with a horizontal crossbar. The 'S' is a simple curve. The 'P' is a vertical bar with a loop. The 'R' is a vertical bar with a horizontal bar and a curve. The 'D' is a vertical bar with a curve. The 'O' is a simple circle. The 'N' is a vertical bar with a horizontal bar and a diagonal bar. The 'I' is a simple vertical bar. The 'J' is a simple vertical bar with a hook. The 'K' is a vertical bar with a horizontal bar and a diagonal bar. The 'M' is a vertical bar with a horizontal bar and a diagonal bar. The 'U' is a simple curve. The 'V' is a simple curve. The 'X' is a simple cross. The 'Y' is a simple cross with a tail. The 'Z' is a simple horizontal bar. The '0' is a simple circle. The '1' is a simple vertical bar. The '2' is a simple curve. The '3' is a simple curve. The '4' is a simple cross. The '5' is a simple curve. The '6' is a simple curve. The '7' is a simple cross. The '8' is a simple cross. The '9' is a simple curve. The text is centered horizontally and has a white background.





A pixelated, black and white graphic of the text "WOW! WOW!". The letters are thick and blocky, with a jagged, pixelated edge. The exclamation marks are also pixelated and have a small dot. The overall style is reminiscent of early digital art or video game text.



OR

=

OR

OR

ORANGE

www.rw





Resampled channel weight (weight EQUAL):

$$w_{R'}(i) = \frac{\sum_{j=j_{\min}}^{j_{\max}} f_R(j) w_R(j)}{\sum_{j=j_{\min}}^{j_{\max}} f_R(j)} \quad (5)$$

WORLD







Averaged channel intensity and weight (non-aligned spectra):

$$T_S(i) = \frac{w_{R'}(i) \times T_{R'}(i) + w_{T'}(i) \times T_{T'}(i)}{w_{R'}(i) + w_{T'}(i)} \quad (6)$$

$$w_S(i) = w_{R'}(i) + w_{T'}(i) \quad (7)$$







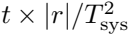


2017





1992-2016





$$\frac{t_{S_{\text{out}}} \times |r_{S_{\text{out}}}|}{T_{\text{sys}, S_{\text{out}}}^2} = \frac{t_{S_{\text{in}}} \times |r_{S_{\text{in}}}|}{T_{\text{sys}, S_{\text{in}}}^2} + \frac{t_{\text{obs}} \times |r_{\text{obs}}|}{T_{\text{sys}, \text{obs}}^2}$$

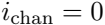
1990-2010

A pixelated, grayscale image of the text "openairtv" in a stylized, blocky font. The letters are composed of various shades of gray and black pixels, giving it a retro, digital appearance. The text is centered horizontally and occupies the middle portion of the image.



valentines

$f(\text{chad}) = f(\text{rees}) \times f(\text{chad}) = f(\text{chad}) + f(\text{oi})$



various frequencies of banding

WORLDWIDE

— *Leaves, roots* *Leaves, roots*







WORLDWIDE



Free, open, free, open