Wavelet Website

https://wav

WAVELETS

Create a Wavelet

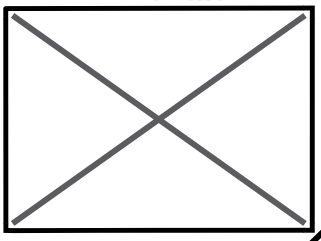
Wavelet analysis started in the mid-eighties with the study of seismic signals and expanded later to many other signal processing applications like analysis of medical signals (electrocardiograms) and signal compression (Stark 2015).

The following are some wavelet function examples in time domain:

Haar Wavelet

(Stark 2005, p26)

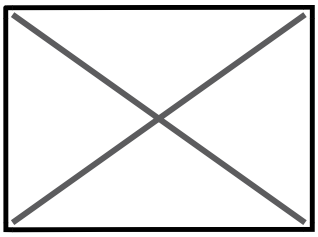
$$\Psi(t) = \begin{cases} 1 & 0 \le t < \frac{1}{2} \\ -1 & \frac{1}{2} \le t < 1 \\ 0 & \text{else} \end{cases}$$



Ricker Wavlet

(Wang 2015, p112)

$$\Psi(t) = \left(1 - \frac{1}{2}\omega_p^2 t^2\right) e^{\frac{1}{4}\omega_p^2 t^2}$$



References

Hans-Georg Stark (2005). Wavelets and Signal Processing, An Application-Based Introduction. ©Springer-Verlag Berlin Heidelberg 2005.
Yanghua Wang (January 2015). The Ricker wavelet and the Lambert W function. Geophysical Journal International, Volume 200, Issue 1, January 2015, Pages 111–115. Published: November 3rd, 2014. https://doi.org/10.1093/gji/ggu384

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WAVELETS

Create a Wavelet

Disclaimer

Type of Wavelet

Select Phase Type

Sampling Rate

Length of Wavelet

Sampling Rate

Frequency

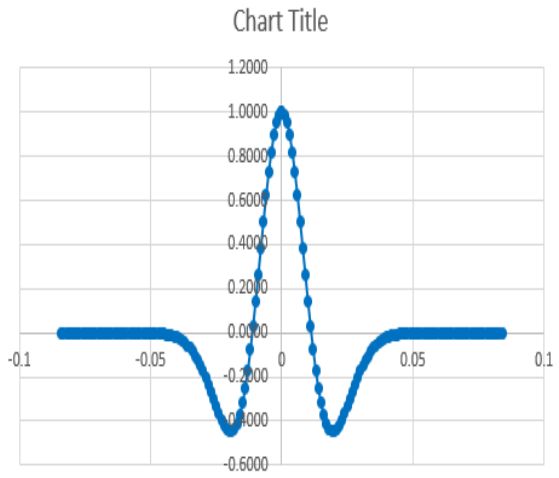
Generate

E-mail

E-mail Data

E-mail sent!

Powered by Google



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