

**Subject:** Quick query regarding kPyWavelet

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**To:** sebastian@nublia.com

Hi Sebastian,

Many thanks for porting the Torrence and Compo (1998) wavelet examples to python - you've saved me a job!

Running through the Nino3 SST example I noticed that the mean square error for the reconstructed series was coming out a bit high.

```
MSE = mean((iwave - var)**2)
```

gives 0.47 versus 0.087 reported in T&C98.

I'm wondering if in the icwt method (at line 361 of wavelet.py):

```
# As of Torrence and Compo (1998), eq. (11)
```

```
iW = dj * sqrt(dt) / w.cdelt * w.psi(0) * (real(W) / sj).sum(axis=0)
```

The sj should be sqrt(sj) and we need some brackets?

```
# As of Torrence and Compo (1998), eq. (11)
```

```
iW = dj * sqrt(dt) / (w.cdelt * w.psi(0)) * (real(W) / sqrt(sj)).sum(axis=0)
```

If I make the change then the mean square error drops to 0.001. Any ideas?

All the best, Ben

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