
Subject: Re: ratio imaging

Posted by [the_cacc](#) on Wed, 13 Mar 2002 11:03:53 GMT

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Yo,

My \$0.02... be a bit wary about filtering, it won't do magic for you (obviously!). However it will do *something*. Be curious about what that is...

Consider you have $N + n1$ (numerator + noise) and $D + n2$ (denominator + noise) and you are forming $(N+n1)/(D+n2)$. What you really want is N/D , right? Filtering will give you $\langle N+n1 \rangle / \langle D+n2 \rangle$, where $\langle \rangle$ implies some sort of filtering. Ideally, $\langle N+n1 \rangle = N$ and $\langle D+n2 \rangle = D$ but it won't ever in reality. If you have an analytical expression for what N and D are, you might be able to work out what's going on analytically. Otherwise do some simulations and check that the $\langle N+n1 \rangle / \langle D+n2 \rangle$ you are forming is approximately the N/D you want. Choose your filter, if any, on this basis.

Ciao.
