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Subject: Phase Unwrapping Algorithms?

Posted by [wsryu](#) on Tue, 19 Nov 1996 08:00:00 GMT

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Hello:

I am interesting in phase unwrapping algorithms which can handle noisy data. I understand this to be a common procedure when doing FFT analysis of interference patterns, and was wondering if anyone has implemented such routines in IDL.

For example:

Let's say we have a 2D matrix of complex data  $a+bi$  and would like to extract the phase value. A simple way would be to take  $\arctan(b/a)$  but a problem exists because  $\arctan$  is modulo  $2\pi$ . The data often gets "wrapped."

Even if not implemented in IDL, I would be curious to hear about peoples favorite methods.

Sincerely,

-will ryu

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