Subject: Cauchy PV integration
Posted by rkombiyil on Tue, 25 Apr 2006 07:23:39 GMT
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Dear All,
I am interested in computing the Cauchy Principal Value integral, in general of the form:
integral from -inf to +inf [f(x) w(x) dx] where w(x) is of the form: 1/(x-t) I need to evaluate the integral between some real limits (not infinity) which has multiple singularities between the beginning and end points. I was wondering if IDL has any routines similar to quadpack? Tho, essentially it is the Hilbert Transform, I am not sure how IDL goes about it (the pv integral is integrating with upper and lower bounds with the singularities in between? - But how would the Hilbert Transform routine go about doing this? kind of confusing...)
Thanks in advance for any suggestion/pointers,
Raj