Deconvolution and the Magnetic Pair Distribution Function
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magnetic pair distribution function is useful in determining short-range magnetic
order and structure in many interesting materials, but is susceptible to the introduction of large, non-physical artifacts in the data processing routines used to produce
it. Numerical deconvolution holds promise as an alternative method capable of producing a sample's magnetic pair distribution function without introducing as much
error. We hope to use numerical deconvolution in the normalization step of our
data processing routine in order to create an algorithm capable of producing more
accurate magnetic pair distribution functions from experimentally obtained neutron
scattering data. Functional utilization has not yet been achieved, but current results
hold promise for future success.

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