Subject: Re: Matrix algebra and index order, A # B vs A ## B
Posted by   on Thu, 05 Apr 2012 14:55:05 GMT

I'm writing some code where matrix algebra is at the heart of things so I really wanted to understand the conventions and convince myself that I can use them in a consistent way.

I realized a major problem for me was not being able to inspect the matrices properly. The IDL print command can print arrays but because the arrays are interpreted as matrices differently depending on which convention is used, I was never sure of what I was looking at. So I wrote a subroutine that prints a matrix the way it is interpreted, based on the multiplication operator (which I think is a convenient way of specifying column-major/row-major). That really helped me make sense of it so I put it and some examples on a web page here:
http://www.solarphysics.kva.se/~mats/idl/matrixalgebra/

I also satisfied myself that I understand the output of LA_SVD and QRfac and that they use the ## operator convention (with a little workaround for QRfac), see the same page.

OK, so this helped me understand what I'm doing. Does it address the frustration that you all have expressed in this thread or are there other issues that I just haven't realized yet?

/Mats