Subject: Re: Principal component analysis
Posted by Haje Korth on Wed, 05 Dec 2007 16:08:02 GMT
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I have tried that, it gives
IDL> ev=imsl_princ_comp(correlate(a,/cov)) & print,ev
      45.2906   3.70938-2.65683e-006

These EVs are the same as you get using PCOMP with /COV keyword.

"Vince Hradil" <hradilv@yahoo.com> wrote in message
news:54fc6ed8-ccd7-4ac6-8e0d-09f5d190eeac@o6g2000hsd.googleg roups.com...
> On Dec 5, 9:12 am, Vince Hradil <hrad...@yahoo.com> wrote:
>> On Dec 5, 8:00 am, "Haje Korth" <haje.ko...@nospam.jhuapl.edu> wrote:
>>
>>> Hi,
>>> I am puzzled by principal component analysis. I calculated the
>>> eigenvalues
>>> using both PCOMP and IMSP_PRINC_COMP routines. Could someone enlighten
>>> me
>>> why the results are completely different? I have tried different
>>> keywords to
>>> see whether I can match them by trial and error, but I had no success.
>>> There
>>> must be someone out there who undertstands this much better than I do.
>>
>>> Thanks so much,
>>> Haje
>>
>>> IDL> a=[[1,-2,-6],[-2,1,-3],[-6,-3,5]]
>>> IDL> pca=pcomp(a,eigenvalues=ev) & print,transpose(ev)
>>>   2.24227   0.757732   0.000000
>>> IDL> ev=imsl_princ_comp(a) & print,ev
>>>   9.53359   -5.19751   2.66392
>>
>> From the HELP:
>>
>> Syntax
>> Result = IMSL_PRINC_COMP(covariances [, /COV_MATRIX]
>> [, /CORR_MATRIX] [, CORRELATIONS=variable] [, CUM_PERCENT=variable] [,
>> DF=variable] [, /DOUBLE] [, EIGENVECTORS=variable] [,
>> STDEV=variable])
>>
>> Note that IMSL_PRINC_COMP requires that you pass the covariance or
>> correlation matrix - not the vectors.
>
> so maybe try

> ev=imsl_princ_comp(correlate(a,/covariance) & print, ev
> (I don't have an analyst license)
