Subject: Re: Covariance Matrices in RhoCandidates
Posted by SHenssler on Wed, 16 Apr 2014 17:37:27 GMT
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Hello Stefano,

positive semi definite does not mean that there cannot be negative values.
The Definition says, that any vector y multiplied in the way: y^t * C * y,
where C is the Covariance Matrix, must result in a value greater or equal to zero.
In a way that is the proof, that the Chi-Square value ( y^t * C^-1 * y ) is always positive.
Or rather, if C is not positive semi definite, then it cannot ne guaranteed that the Chi Square value is positive.
It is a mathematical property that every Covarince Matrix Must have.

Cheers
Simon