Re: modifying mahalanobis distance

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Hi, I am not sure if you are still reading this thread, I now understand why decreasing the error C_i on a data point y_i brings the ML solution of the mean closer to it.

So given the solution is to maximise prod_i N[y_i | m, K+C_i] or sum_i log(−0.5*log(|K+C_i|) − 0.5*(y_i−m)'(K+C_i)^{−1}(y_i−m)

Although a better mean can be computed by setting the derivative to 0 and rearrange terms:
m_{new} = (sum_i (K+C_i)^{−1})^{−1}(sum_i (K+C_i)^{−1}y_i)

a better covariance K_{new} seems to be harder to derive because the covariance of the cluster is inside the inversion of the sum of two matrices.

how did you calculate the ML solution for the examples you give (assuming it is a simple update and not stochastic hill climbing) and can it be extended to multidimensional cases?

thanks
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