

# Proof Edits

Nicholas Asendorf and Raj Rao Nadakuditi

T-SP-13946-2012 - IEEE Transactions on Signal Processing - “The Performance of a Matched Subspace Detector that Uses Subspaces Estimated from Finite, Noisy, Training Data”

To whom it may concern,

Could you please make the following changes to the proof

- Page 5, last paragraph in first column starting with “The detector derivations...” - This is a continuation of the previous paragraph. Please delete the indentation, i.e., please make the first line left aligned with the column as well.
- Page 7, second column, last centered equation, beginning with “ $\Lambda(\hat{w}) = \hat{w}^H B A \dots$ ”. Please remove the  $\times$  in the middle of this equation.
- Page 8, equation (23). Please split this equation after the comma and horizontally align the equations so it looks like.

$$\begin{aligned}\Lambda(\hat{w})|H_0 &\sim \sum_{i=1}^{\hat{k}} d_i \chi_{1i}^2, \\ \Lambda(\hat{w})|H_1 &\sim \sum_{i=1}^{\hat{k}} d_i (\sigma_i^2 |\langle u_i, \hat{u}_i \rangle|^2 + 1) \chi_{1i}^2\end{aligned}$$

The code for this is

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\begin{equation*}
\begin{aligned}
&\& \Lambda(\widehat{w})|H_0 \sim \sum_{i=1}^{\widehat{k}} d_i \chi_{1i}^2, \\
&\& \Lambda(\widehat{w})|H_1 \sim \sum_{i=1}^{\widehat{k}} d_i (\sigma_i^2 |\langle u_i, \widehat{u}_i \rangle|^2 + 1) \chi_{1i}^2 \\
&\& d_i \left( \sigma_i^2 |\langle u_i, \widehat{u}_i \rangle|^2 + 1 \right) \chi_{1i}^2 \\
\end{aligned}
\end{equation*}
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- Page 13, last line before equation (30). Please add a space between [20] and  $\hat{\lambda}_i$ .
- Page 13, last paragraph, second column right before references. Please make changes in the appendix as indicated on the next page in red:
- Page 14, biography of Nicholas Asendorf, second paragraph should begin “He is currently working towards his Ph.D. at the Department of Electrical...”. Please add “...his Ph.D. at”.