



SVM SPEAKER VERIFICATION USING A NEW SEQUENCE KERNEL (ThuAmPO1)

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✳ **Abstract :** Using the framework of Reproducing Kernel Hilbert Spaces, we develop a new sequence kernel that measure similarity between sequences of observations. We then apply it to a text-independent speaker verification task using the NIST 2004 Speaker Recognition Evaluation database. The results show that incorporating our new sequence kernel in an SVM training architecture not only yields performance significantly superior to those of a baseline UBM-GMM classifier but also outperforms the Generalized Linear Discriminant Sequence (GLDS) Kernel classifier. based method. Moreover, our kernel maps to a relatively low dimensional feature space while allowing a large choice for the kernel function.