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ADVANCED DIGITAL SIGNAL PROCESSING USING THE KARHUNEN-LOEVE TRANSFORM

Abstract

Digital signal processing is the corner stone of our telecommunication technology and of radio astronomy research. While the Karhunen-Loeve transform is not a new tool it is far better than the classical Fourier transform. The author will present recent results using the KLT to extract data from large noisy data set by using a fast algorithm. The talk will also cover the use of null hypothesis and KLT for the search of complex signal buried in noise.