论文

基于小波变换的数字调制信号识别方法的研究

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摘要
该文介绍了一种基于小波分类特征的数字调制信号的识别方法，创新之处在于同时应用了连续小波变换和多层小波分解两种方法提取信号的特征，并且对于不同调制信号采用了不同的分类特征。算法实现时不需要进行码元周期估计以及同步时间估计，从而使分类器的设计变得简单，判决准则简化，提高了运算速度和识别率。

关键词　数字调制信号识别　连续小波变换　多层小波分解

分类号　TN911.7

Modulation Identification of Digital Signals with Wavelet Transform

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Abstract
A new method of digital modulation identification with wavelet transform is introduced in this paper. There are two ways to get the characteristics. One is to get the local maximum with the continuous wavelet transform; the other is the multiresolution analysis. Both of them have been used. For different modulated signals, different characteristics have been used. Compared with others, the classifier is easy to realize and the decision is simple. It is not necessary to estimate the code period and the synchronization time. The percentage of correct identification is improved. The speed of modulation identification is increased as well.

Key words　Digital modulation identification　Continuous wavelet transform　Multiresolution analysis

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