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## 论文

### 分段线性序列的重采样

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摘要:

为了避免基于有限更新率的连续域信号采样涉及复杂的运算问题, 认真研究分段线性序列特点, 提出一种在离散域进行信号参量提取的方法, 称之为序列重采样. 给出了有限长序列更新率定义, 总结出一种适合简单分段线性序列的参量提取算法——试探法, 将之推广到一般分段线性序列. 不需要事先知道更新率的数量, 也不需要连续域进行运算, 从采样后的序列中直接检测信号更新点和更新参量, 从而实现信号采样. 对所提出的算法进行了仿真, 结果表明该算法是有效的.

关键词: 有限更新率 分段线性 重采样 参量提取

### Resampling of Piecewise Linear Sequences

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Abstract:

In order to solve the problems laid on continuous signal sampling based on finite rate of innovation, the feature of piecewise linear sequences is studied seriously, and a method called sequence resampling is proposed where the continuous signal variation parameters is extracted in discrete domain. The finite rate of innovation of sequence with finite length is defined, and a parameter extract method called test method is concluded which is suitable for the parameter extract of simple linear sequences, then this method is extended to the one of normal linear sequences. The innovation number does not need to be known in advance, and complex operations in continuous domain can be avoided; the signal's innovation time and parameters can be extracted from the sampled sequence, and the signal sampling is realized. The proposed algorithm is simulated, and the results show that the proposed algorithm is valid.

Keywords: Finite rate of innovation Piecewise linear Re-sampling Parameters extract

收稿日期 2012-11-05 修回日期 2013-01-06 网络版发布日期

DOI: 10.3788/gzxb20134204.0491

基金项目:

通讯作者:

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