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## 幅值补偿的AMDF基音周期检测算法

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**摘要** 传统的基于AMDF及其改进算法LV-AMDF容易导致检测基音周期时产生加倍、减半等错误。针对该现象, 分析了AMDF、LV-AMDF函数的特性及其用于基音检测时存在的不足, 提出了幅值补偿AMDF算法来检测基音周期, 降低了基音检测中经常出现的半频、倍频错误, 提高了检测的精度。实验表明该方法基音检测性能优于AMDF和LV-AMDF的方法。

**关键词** [基音检测](#) [平均幅度差函数 \(AMDF\)](#) [变长AMDF](#) [幅值补偿](#)

**分类号** [TP391](#)

## Amplitude compensation based AMDF pitch detection algorithm

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### Abstract

Traditional AMDF and its improved algorithm LV-AMDF based pitch detection method easily causes the double or half error. For this problem, this paper analyzes the characters of functions of AMDF and LV-AMDF and their shortages on pitch detection, and then proposes amplitude compensation based AMDF to detect the pitch. This algorithm decreases the occurring of double-frequency and half-frequency errors and increases the detection precision. The experiments show that the proposed algorithm performs better on pitch detection compared with AMDF and LV-AMDF methods.

**Key words** [pitch detection algorithm](#) [Average Magnitude Difference Function \(AMDF\)](#) [Length-Variied AMDF](#) [amplitude compensation](#)

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