

图形、图像、模式识别

## 联机手写签名中加权DTW方法的研究

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**摘要** 提出了联机手写签名鉴别的一种新方法。从真实签名样本训练得到标准模板、局部稳定性。鉴别时采用以压力为权重的动态时间规整方法, 由得到的真实签名间的匹配距离计算出一组阈值, 小于阈值的为真实签名, 大于阈值的为伪造签名。该算法较好地弥补了普通动态时间规整算法在签名鉴别上的不足。实验结果表明, 该鉴别算法简单而高效, 计算得出的误纳率 (FAR)、误拒率 (FRR) 及等错误率 (EER) 有了明显的提高。

**关键词** [阈值](#) [加权](#) [等错误率](#)

**分类号** [TP39](#)

## Research of weighted dynamic timing warping in on-line handwritten signature

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### Abstract

In this paper, a new method of on-line handwritten signature verification is presented. The normal pattern and local stability is obtained from reference patterns. Verification part adopts dynamic timing warping which shifts pressure as weighting. Through the matching distance of genuine signatures can calculate a set of thresholds. Distances which are less than the threshold are supposed to genuine signatures and the greater are forged ones. The method of this system can overcome the faults of normal dynamic timing warping using in on-line handwritten signature verification. Experiments also demonstrate that this new method has low computation and high performance, the FAR, FRR and EER also has obvious improvement.

**Key words** [threshold](#) [weighted](#) [Equal Error Rate \(EER\)](#)

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