短文

具有线性加法复杂度的二值图象不变矩计算方法

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摘要
不变矩方法是模式识别的一个重要方法,然而由于不变矩计算复杂,从而限制了它的应用.本文运用格林定理,将不变矩计算由平面域转化为曲线域.在此基础上,提出了边界跟踪迭代的不变矩计算方法.新方法不仅不需要乘法,而且加法次数亦从0(N2)降低到0(N).

关键词　　不变矩　格林定理　边缘跟踪　计算复杂度

分类号

An Invariant Moment Calculation Method for binary Image with Linear Complexity

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Abstract
The invariant Moment method is an important technique means for pattern recognition. However, its application is limited by its computation complexity. In this paper, Green theorem is used to change the plane integral into curve domain integral, and based on this, an iterative algorithm of edge tracing is proposed to calculate moment invariants. Compared with the known method, the new algorithm does not need multiplication operation and its addition complexiey decrease from (O(N2) to O(N).

Key words　　Moment Invariants　Greet　Theorem　Edge-tracing　Computation Complexity

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