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论文与报告

CMAC学习过程收敛性的研究

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摘要
基于CMAC学习过程等价于求解线性方程组的(Gauss-Seidel迭代这一事实,研究了学习过程的收敛性.利用矩阵分析方法,估计出了收敛的速度.考虑了作为节省存储空间措施的hash编码的不利影响--破坏了收敛性态.从理论上分析了其存在的原因.

关键词 CMAC 收敛性 Gauss-Seidel迭代 hash编码

分类号

A Study of the Convergence of the CMAC Learning Process

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Abstract
Based on the fact that the CMAC learning process is equivalent to the Gauss-Seidel iteration for solving a linear system of equations, this paper addresses the convergence of the CMAC learning process. By means of matrix analysis, the convergence speed is estimated. The negative effect on convergence of hash coding, i, e.,it deteriorates the convergence performance is considered and the reason for its existence is also theoretically analyzed.

Key words CMAC convergence Gauss-Seidel iteration hash conding

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