网络、通信、安全

# 基于Boosting RBF神经网络的入侵检测

党长青, 刘 洁, 牛分中

唐山学院 信息工程二系，河北 唐山 063020

摘要　提出一种新颖的基于boosting RBF神经网络的入侵检测方法。将模糊聚类和神经网络技术相结合，提出基于改进的FCM算法和OLS算法相结合的FORBF算法，为了提高RBF神经网络的泛化能力，采用Boosting方法，进行网络集成。以"KDD Cup 1999 Data"网络连接数据集训练神经网络并仿真实验，得到了较高的检测率和较低的误警率。

关键词　入侵检测　Boosting方法　RBF神经网络　正交最小二乘法

分类号

## Intrusion detection based on boosting method and RBF neural network

DANG Chang-qing,LIU Jie,NIU Fen-zhong

Department Two of Information Engineering，Tangshan College，Tangshan，Hebei 063020，China

### Abstract

A novel method is proposed for intrusion detection based on improved boosting RBF neural network.By combining fuzzy clustering and neural network，this paper puts forward an FORBF algorithm based on improved FCM and OLS.In order to improve the precision of the RBF neural network for intrusion detection，the improved boosting algorithm is used to build an integration-neural network.Simulated experiments with KDD Cup 1999 network connections data have shown that the proposed method is effective for intrusion detection owing to excellent performance of the higher attack detection rate with lower false positive rate.

Key words　intrusion detection　Boosting method　RBF neural network　orthogonal least squares

DOI:

通讯作者　党长青 dangchangqing2007@163.com

扩展功能

本文信息
- Supporting info
- PDF(604KB)
- [HTML全文](0KB)
- 参考文献

服务与反馈
- 把本文推荐给朋友
- 加入我的书架
- 加入引用管理器
- 复制索引
- Email Alert
- 文章反馈
- 浏览反馈信息

相关信息
- 本刊中 包含"入侵检测"的相关文章
- 本文作者相关文章
- 党长青
- 刘 洁
- 牛分中