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## 基于主元分析的核电站主冷却剂泵故障诊断

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**摘要** 研究了基于主元分析的故障诊断方法,在对某核电厂主冷却剂泵的故障诊断仿真实验中,建立了15个测量参数异常情况的故障特征方向库。通过对实测数据进行分析,证明此方法用于核电站的主冷却剂泵的故障诊断是可行的。

**关键词** [主元分析\(PCA\)](#) [故障诊断](#) [主冷却剂泵](#) [核电站](#)

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## Fault Diagnosis of Main Coolant Pump in the Nuclear Power Station Based on the Principal Component Analysis

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**Abstract** The fault diagnosis method based on principal component analysis is studied. The fault character direction storeroom of fifteen parameters abnormality is built in the simulation for the main coolant pump of nuclear power station. The measuring data are analyzed, and the results show that it is feasible for the fault diagnosis system of main coolant pump in the nuclear power station.

**Key words** [principal component analysis](#) [fault diagnosis](#) [main coolant pump](#) [nuclear power station](#)

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