干扰效应下煤棚结构风致响应研究

Analysis of Wind-induced Responses of Dry Coal Sheds Under Inte

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中文摘要

　　基于刚性模型风洞试验的结果，研究了有(无)干扰条件下干煤棚的风致响应，采用平稳激励下随机振动的模态叠加法(CQC法)这
动响应及峰值响应进行了详细分析，发现各种干扰条件下相同区域的最大响应尽管数值上的大小有所不同，但随风向的变化规律却类以
度,分析了不同风场及外界干扰下煤棚结构的风致响应特点.研究发现，当施扰煤棚分别出现在受扰煤棚的上游和下游时，平均响应对
点；尽管干扰条

英文摘要

　　This paper presents an investigation of the interference effects to determine a systematic method to research
interference condition,wind-induced response.Based on the wind pressure distributions on a typical dry coal shed fro
induced dynamic responses are computed in frequency domain by using mode superposition method (CQC method).The chara
responses at different wind directions are analyzed.It is found that the maximum responses in the same region of roc
interference conditions.Then the characteristics of gust response factor,background/resonant response and power spec
interfering building is located upstream and downstream respectively,mean responses contribute differently to total
to dynamic responses differently either.However,as a matter of fact,some specific modes contribute more to dynamic r