

#GPD2018

# ALL EYES ON GLASS.

GLASS PERFORMANCE DAYS 2018  
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## RISK DETECTION AND RELIABILITY EVALUATION OF BUILDING GLASS

### ABSTRACT

A solution was provided for three main difficulties of building glass, i.e., spontaneous breakage glass falling and reliability evaluation of insulating glass. It was demonstrated that the direct cause of the spontaneous breakage is the stress concentration, and the photoelastic scanning method was invented to detect the source of breakage. The relative dynamic method was presented to predict the risk of curtain wall falling, and a largest laboratory in the world for reliability test of insulating glass was built. A major breakthrough in the risk diagnosis of building glass has been realized.

### 建筑玻璃服役风险检测和可靠性评价

建筑玻璃服役安全的三大关键性难点：1：钢化玻璃自爆，2：幕墙玻璃坠落，3：中空玻璃可靠性评价。针对以上问题，研究出解决方案，证明了自爆的直接原因是应力集中，并发明了光弹扫描法检测自爆源，动态相对法预测幕墙玻璃的坠落风险和中空玻璃可靠性的实验室和服役现场的检测技术。实现了建筑玻璃风险诊断的重大突破。

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