# Article information:

A new rockburst criterion of stress–strength ratio considering stress distribution of surrounding rock | SpringerLink
<https://link.springer.com/article/10.1007/s10064-022-03042-x>

# Article summary:

1. Rockburst is a major problem in deep rock excavation and effective prevention and control strategies are needed.

2. Current rockburst criteria based on strength theory do not fully consider the comprehensive influences of various important factors, leading to gaps between calculated and actual results.

3. The stress path distribution of surrounding rock masses during excavation activities is an important factor in predicting strain rockburst conditions, and a strength criterion method that ignores this may not be comprehensive enough.

# Article rating:

Appears moderately imbalanced: The article provides some useful information, but is missing several important points or pieces of evidence that would be required to present the discussed topics in a balanced and reliable way. You are encouraged to seek a more balanced perspective on the presented issues by exploring the provided research topics and looking at different information sources.

# Article analysis:

该文章主要介绍了岩爆现象的研究和预测方法，但存在一些潜在的偏见和不足之处。

首先，该文章没有充分考虑到地质结构、地下水等因素对岩爆现象的影响。这些因素可能会导致岩体应力分布的变化，从而影响岩爆的发生和预测。

其次，该文章提到了一些非线性预测方法，但并未详细说明其优缺点及适用范围。此外，该文章也没有探讨如何将这些方法应用于实际工程中，并未提供相关案例或数据支持。

另外，该文章似乎过于强调了基于强度理论的岩爆判据的局限性，并未充分探讨其优点和适用范围。事实上，在某些情况下，这些判据仍然是有效的，并且已经被广泛应用于实际工程中。

最后，该文章似乎缺乏对可能风险和不确定性的关注。在实际工程中，由于各种因素的复杂性和不确定性，岩爆预测往往存在一定误差。因此，在制定相应措施时需要谨慎考虑可能的风险和不确定性。

总之，该文章提供了一些有用的信息和思路，但需要更全面、客观地考虑各种因素，并提供更多实证数据和案例支持。

# Topics for further research:

* Geological structure and groundwater
* Nonlinear prediction methods
* Application in practical engineering
* Advantages and limitations of strength-based criteria
* Risk and uncertainty
* Empirical data and case studies

# Report location:

<https://www.fullpicture.app/item/8b4fd5222e59f2d9a123ea0c9eb765c0>