# Article information:

Prediction of rockburst hazard based on particle swarm algorithm and neural network | SpringerLink  
<https://link.springer.com/article/10.1007/s00521-021-06057-9>

# Article summary:

1. Rockburst is a destructive phenomenon in coal and rock mining, caused by the overload of elastic energy stored in the coal.

2. This article proposes a method for predicting rockburst risk using particle swarm optimization and neural networks.

3. The proposed method combines chaos theory, particle algorithm prediction and neural network to provide a theoretical basis for short-term rockburst prediction based on mining process monitoring data.

# 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:

The article provides an overview of the potential risks associated with rockburst and presents a method for predicting such risks using particle swarm optimization and neural networks. The article is well-written and provides detailed information about the proposed method, as well as its theoretical basis. However, there are some potential biases that should be noted. For example, the article does not explore any counterarguments or alternative methods for predicting rockburst risk, nor does it discuss any possible risks associated with the proposed method. Additionally, while the article cites several sources to support its claims, it does not provide any evidence to back up its assertions regarding the effectiveness of the proposed method in predicting rockburst risk. Furthermore, there is no discussion of how this method could be applied in practice or what implications it may have for miners or other stakeholders involved in coal and rock mining operations. As such, further research is needed to assess the trustworthiness and reliability of this proposed method before it can be implemented in real-world scenarios.

# Topics for further research:

* Alternative methods for predicting rockburst risk
* Risks associated with particle swarm optimization
* Neural networks for rockburst risk prediction
* Practical applications of rockburst risk prediction
* Implications of rockburst risk prediction for miners
* Evidence for effectiveness of rockburst risk prediction methods

# Report location:

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