# Article information:

使用基于复杂网络的新型模型分析重空气污染过程中的污染物迁移 - ScienceDirect  
<https://www.sciencedirect.com/science/article/pii/S1352231022004605>

# Article summary:

1. A new model based on complex networks is proposed to analyze the migration of pollutants in heavy air pollution processes.

2. The model focuses on the research of heavy air pollution processes and improves PageRank algorithm and label propagation algorithm to identify main contribution areas and related air pollution areas.

3. The performance of the model is verified using data from Beijing-Tianjin-Hebei region over a period of 13 months, showing that Tangshan, Tianjin and Langfang are the main contribution areas for pollutant transport, while other cities in the region form related pollution areas.

# Article rating:

May be slightly imbalanced: The article presents the information in a generally reliable way, but there are minor points of consideration that could be explored further or claims that are not fully backed by appropriate evidence. Some perspectives may also be omitted, and you are encouraged to use the research topics section to explore the topic further.

# Article analysis:

This article presents a new model based on complex networks to analyze the migration of pollutants in heavy air pollution processes. The authors provide a detailed description of their proposed model, which includes improving PageRank algorithm and label propagation algorithm to identify main contribution areas and related air pollution areas. The performance of the model is then verified using data from Beijing-Tianjin-Hebei region over a period of 13 months.

The article appears to be reliable as it provides sufficient evidence for its claims, such as statistical analysis results from different cities in the Beijing-Tianjin-Hebei region, as well as references to previous studies conducted in this area. Furthermore, it also provides an overview of existing models used for studying regional transport impacts of air pollutants in China, which adds credibility to the article's claims.

However, there are some potential biases that should be noted when evaluating this article's trustworthiness and reliability. For example, although the authors mention that their proposed model can avoid distortion caused by uncertainty in emissions inventories due to lack of knowledge regarding true values at given locations and periods, they do not provide any evidence or further explanation for this claim. Additionally, although they mention that their proposed model has lower demand for size and complexity of data compared with existing models used for studying regional transport impacts of air pollutants in China, they do not provide any comparison between these two types of models or discuss how their proposed model could be improved further if more data were available.

In conclusion, this article appears to be reliable overall but there are some potential biases that should be taken into consideration when evaluating its trustworthiness and reliability.

# Topics for further research:

* Air Pollution Regional Transport Impacts
* Uncertainty in Emissions Inventories
* Complex Network Model for Pollutant Migration
* PageRank Algorithm
* Label Propagation Algorithm
* Beijing-Tianjin-Hebei Region Air Pollution

# Report location:

<https://www.fullpicture.app/item/6bef41753dcacce00c58e60998cd638b>