# Article information:

Seismic stratigraphy interpretation by deep convolutional neural networks: A semisupervised workflow  
<https://library.seg.org/doi/epub/10.1190/geo2019-0433.1>

# Article summary:

1. A semisupervised workflow has been developed for efficient seismic stratigraphy interpretation using deep convolutional neural networks (CNNs).

2. The workflow consists of two components: seismic feature self-learning (SFSL) and stratigraphy model building (SMB), each of which is formulated as a deep CNN.

3. The performance of the new workflow is verified through application to three real seismic data sets, showing its potential for other problems in seismic data analysis.

# 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:

The article provides a detailed description of the semisupervised workflow developed for efficient seismic stratigraphy interpretation by using deep convolutional neural networks (CNNs). The authors provide evidence from three real seismic data sets to support their claims, demonstrating the potential of the proposed workflow for other problems in seismic data analysis. However, there are some points that could be further explored in order to increase the trustworthiness and reliability of the article. For example, it would be beneficial to discuss possible risks associated with this approach, such as errors due to incorrect labeling or misclassification of features. Additionally, it would be useful to explore counterarguments or alternative approaches that could be used instead of the proposed method. Furthermore, it would be helpful if more information was provided about how the training labels were prepared by domain experts and how they were translated into training labels for the SMB CNN. Finally, it would also be beneficial if more details were provided about how the results from this approach compare with those obtained from manual interpretation by experienced interpreters.

# Topics for further research:

* Seismic stratigraphy interpretation
* Deep convolutional neural networks
* Training labels preparation
* Manual interpretation of seismic data
* Errors due to incorrect labeling
* Alternative approaches for seismic data analysis

# Report location:

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