# Article information:

Experimental investigation of the face stability of shallow tunnels in sand | SpringerLink  
<https://link.springer.com/article/10.1007/s11440-010-0110-7>

# Article summary:

1. The face stability of shallow tunnels must be guaranteed to prevent collapse and minimise settlements.

2. There are various theoretical and experimental approaches for determining the necessary support pressure for the face of shallow tunnels.

3. The author performed two series of small-scale model experiments to further assess the quality of proposed models for face stability 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 is generally reliable and trustworthy, as it provides a comprehensive overview of the various theoretical and experimental approaches for determining the necessary support pressure for the face of shallow tunnels, as well as an in-depth description of two series of small-scale model experiments conducted by the author to further assess the quality of proposed models for face stability analysis. The article does not appear to be biased or one-sided, as it presents both sides equally and does not promote any particular approach over another. Furthermore, all claims made in the article are supported with evidence from relevant sources such as STUVA [50], ZTV-Ing. [7], Horn [23], Vermeer et al. [58], Krause [31], Léca and Dormieux [34], Ruse and Vermeer [43, 57, 59] etc., which adds to its credibility.

The only potential issue with this article is that it does not explore any counterarguments or alternative perspectives on the topic at hand, which could have added more depth to its discussion. Additionally, there is no mention of possible risks associated with using certain approaches or models for determining support pressure, which could have been useful information for readers who are considering using these methods in their own projects.

# Topics for further research:

* Alternative approaches for determining support pressure for shallow tunnels
* Potential risks associated with using certain models for face stability analysis
* Counterarguments to existing models for face stability analysis
* Recent advances in shallow tunnel support pressure analysis
* Comparative analysis of different models for face stability analysis
* Practical applications of shallow tunnel support pressure analysis

# Report location:

<https://www.fullpicture.app/item/ff126228730f77e0af470ab29074f295>