

Review of: "A Probability-Based Algorithm for Evaluating Climbing Difficulty Grades"

I.F. Kamaruzaman¹

¹ Multimedia University

Potential competing interests: No potential competing interests to declare.

The abstract is concise, but it could benefit from a bit more clarity. Ensure that key terms are defined or explained, especially for readers who may not be familiar with climbing route grading. Explicitly mention what makes the proposed model unique, especially the probabilistic approach. This will grab the reader's attention and set the stage for the rest of the paper. Ensure that the abstract includes relevant keywords that potential readers might use when searching for articles on this topic.

The introduction is well-structured and provides a clear understanding of the context and issues with existing methods. Consider using more engaging language in certain sections to captivate the reader's interest. For instance, emphasize the real-world challenges climbers face and the excitement of overcoming them.

Summarize the key points of the mathematical model. Briefly restate the main features, including the quantification of difficulty and rest quality, the association rule, and the incorporation of probability densities. Emphasize the importance of the fitting procedure and optimization algorithm in obtaining meaningful parameters for the model. Reiterate the significance of using probability densities in the model, emphasizing that the grade attributed by each climber is treated as a random variable, and the "official" grade is the expected value.