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| Book Name: | [Geography, Earth Science and Environment: Research Highlights](https://www.bookpi.org/bookstore/product/geography-earth-science-and-environment-research-highlights-vol-1/) |
| Manuscript Number: | **Ms\_BPR\_4663** |
| Title of the Manuscript:  | **Retention parameters of the crack network in a two-domain soil structure** |
| Type of the Article | **BOOK CHAPTER** |

**Special note:**

**A research paper already published in a journal can be published as a Book Chapter in an expanded form with proper copyright approval.**

**Source Article:**

**This chapter is an extended version of the article published by the same author(s) in the following journal.**

**1ST: J. Hydrol. Hydromech., 71, 2023, 4, 369–381.** [**https://doi.org/10.2478/johh-2023-0034**](https://doi.org/10.2478/johh-2023-0034)

**2ND: ACTA HYDROLOGICA SLOVACA, Volume 25, No. 1, 2024, 81 – 87. DOI: 10.31577/ahs-2024-0025.01.0009**

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| PART 1: Comments |
|  | Reviewer’s comment**Artificial Intelligence (AI) generated or assisted review comments are strictly prohibited during peer review.** | Author’s Feedback *(Please correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)* |
| **Please write a few sentences regarding the importance of this manuscript for the scientific community. A minimum of 3-4 sentences may be required for this part.** | This manuscript is of great importance to the scientific community because it presents a quantitative method for estimating crack network retention in a two-domain soil, a crucial phenomenon but difficult to assess directly. The results obtained are particularly useful for soil management in agriculture, infrastructure stability and modeling the effects of climate change on clay soils. Furthermore, the creation of a simple and effective tool for measuring cracks on the ground surface represents a valuable methodological advance for researchers. |  |
| **Is the title of the article suitable?****(If not please suggest an alternative title)** | **The title of the article is not appropriate because the authors do not highlight the practical applications and areas of implication of the work**Proposed title “Quantitative method for assessing crack retention in two-domain soils: Implications for agriculture and infrastructure stability” |  |
| Is the abstract of the article comprehensive? Do you suggest the addition (or deletion) of some points in this section? Please write your suggestions here. | The summary of the article is complete and clearly presents the results obtained |  |
| **Is the manuscript scientifically, correct? Please write here.**  | This manuscript is scientifically and technically sound due to its rigorous methodology and careful experimental validation of its hypotheses. The proposed approach is based on well-established principles of geotechnics and hydrology, and the integration of factors such as clay content and soil moisture is justified by solid empirical data. Validation of the results by direct measurement of crack width under real drought conditions reinforces the credibility of the calculation procedure. Additionally, using a simple tool to measure cracks provides a practical and reproducible approach, ensuring that the findings are applicable to varied contexts. Thus, the manuscript presents a balanced combination of solid theory and practical applications that make it a valuable contribution to the scientific community. |  |
| **Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form.****-** | The literature presents recent references and sufficiently enriches |  |
| Is the language/English quality of the article suitable for scholarly communications? | The linguistic quality is adapted to scientific communities |  |
| Optional/General comments | The work is well organized, the methodology is well explained and the results are well presented and interpreted.the work is of scientific interest since it brings novel elements to the field of research. |  |

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| **PART 2:**  |
|  | Reviewer’s comment | Author’s comment *(if agreed with the reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)* |
| **Are there ethical issues in this manuscript?**  |  |  |

**Reviewer details:**

**Mvogo Neme Sebastien Didime, University Of Douala, Cameroon**