

Interactive comment on “Hydrology and beyond: The scientific work of August Colding revisited” by Dan Rosbjerg

Anonymous Referee #2

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The pioneering work of August Colding has been summarized in this paper by Dan Rosbjerg.

The manuscript is generally well-written and it is interesting to read about Colding's independent work and it is evident that Colding pioneered the water sector in Denmark from both a theoretical and a utility application point of view in the latter part of the 19th century.

It is mentioned multiple times in the manuscript that Colding developed his theories simultaneously to other pioneering scientists such as Darcy, Joule et al, but was never recognized for his findings. The validity of these statements is difficult to prove and must be seen as postulates, and whether or not the experiments were purely independent can be questioned. I guess that the Code of Conduct for Research Integrity

C1

was rather fussy at that time

The figures are of poor quality and give little insight into the actual experiments and development of theories. It is probably difficult to improve the quality of the original works, but a professional re-drawing might be an option if the reader should be able to make anything out of the figures.

Although the original works (which are well-cited) are in Danish, it could be interesting to include some citations and quotes from his original works. Maybe in Danish with a translation into English. This could contribute to improving the validity and scientific quality.

Whether the publication is suitable for the special issue on History of hydrology, I will leave for the editor to decide. The paper is interesting from a historical point of view, but it is mostly summarizing the works of Colding at a rather superficial and narrative level. The manuscript would fit well into a book on the history of hydrology. In my view, details of experiments and development of theories could be detailed more based on the original work in order for the manuscript to have any real scientific impact.

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C2