

## CRITICAL REVIEW

**Carlos Eduardo Ribeiro Santa Cruz Mendoza**, [carlos.eduardo.ribeiro@estudiant.upc.edu](mailto:carlos.eduardo.ribeiro@estudiant.upc.edu)  
Communication Skills 1  
Master of Science in Computational Mechanics - Universitat Politècnica de Catalunya

Critical Review – **Reactive Transport: numerical issues and challenges**, by Jesús Carrera.  
Seminar presented on October 10th, 2018.

Jesús Carrera performed a very wide presentation on the concepts, challenges and applications of modelling reactive transport. The speaker has passed confidence to the audience through a calm and well-articulated talking, putting himself as an expert on the subject with phrases such as “This is well established on the field” and “Until now this has been a main divergence topic on the research community”.

The topic presentation started well by casting light over the problems that would benefit from a good reactive transport modelling. He drew attention of the audience linking the subject to underground water reservoirs with impact phrases such as “it’s the only clean water we have”. Another positive point of the presentation was attempting to make the complex theme more easily understandable through topic division, explaining first the transport part and then the reactive part of the problem.

The slides used, though, were of poor appearance. The fonts used were childish and removed a bit of authority from the speaker. Greater use of images and diagrams would also have helped understanding on many occasions. Use of text on slides was fair on most of the slides, but some of them contained more text than the audience could read while paying attention to the seminar. Item usage was good and apart from some exceptions the reader could link easily the content of the slide with what the speaker was saying.

While explaining the equations regarding reactive transport, the speaker often did a good job on pointing out the physical meaning of each term, but sometimes just rushed through them, raising the question of the equations were important enough to be there on the first place. Probably due to its complexity, the section on reactions was much more confusing, without proper assessment for people without previous knowledge on the subject. The speaker had to go forward and backward on the slides several times trying to explain a concept making it harder to follow his line of thought. The connection between the reaction and transport part was also missing, on my opinion, leaving a breach on an otherwise well-performed presentation.