

**Federico Parisi**  
Computational Mechanics

## **Critical Review Communication Skills 1**

On Wednesday 4<sup>th</sup> of December, the seminar “Last advances of the PFEM for coupled problems” has been held by Alessandro Franci at the International Centre for Numerical Methods in Engineering in Barcelona, Spain in the Campus North of UPC.

Alessandro Franci introduced himself presenting his work and his working team. He divided his conference in three different parts, each one explaining a different topic with the related application. Each part was structured in the same way, easy to understand. At the beginning he starts with the explanation of the method used, then he showed some examples and applications of it and as a conclusion he showed the topic-related research going on. Each part prepared the topic for the following one in order to create a sort of story.

Each part started with an introduction in which he anticipated the structure of his presentation in order to focus on each point during his speech. This gave an idea to the audience of what they should expect and let them focus on each sub-topic. The speaker helped himself with a lot of graphs and images that made the conference easier to follow. He made references to real issues and applications in order to make the speech more interesting as the public could see how these new methods are going to be used and where. The examples of the Vajon dam in the North of Italy showed exactly this idea. He showed the techniques used to replicate the disaster of 1963 and how they managed in simulating what happened, showing how helpful can be the re-meshing method explained in the first part of presentation.

Researcher Franci showed a great knowledge of the topic he presented. He explained everything in a simple way in order to be understood from people who didn't have deep knowledges in that topic. He used simple words without using long periods or complicate phrases but short and effective sentences to explain more complicated topics. In this way he managed in letting the audience understand his work and his examples even if people had different backgrounds. Moreover, the use of graphs, images and not many formulas, helped the speaker to obtain the attention of the audience, making people focus on the application rather than the details of formulas and procedures.

In the last part of his conference, Alessandro Franci showed different application of these PFEM techniques in a lot of different fields: civil engineering (Vajont disaster) or fluid mechanics (examples of a tank discharge). He showed how this method can be used to track fluid streams to study different characteristics, from the fluid properties to the structural integrity or the materials. He concluded his talk informing the audience about a course that will be held on this topic at the end of the academic year in which people from the conference have been invited to participate.

In conclusion the conference was well-held, well-structured and easy to understand. The amount of people present in the audience was perfect balanced in order to follow the presentation and have interesting questions at the end. Questions asked after he finished speaking had been an index of the speech quality because were inherent to the topic and were not about any clarification of what he presented. Questions were more based on future application of the topic or on suggestions about a possible development.