

Communication Skills Critical Review on Seminar

"Fully coupled fluid-electro-mechanical cardiovascular simulations", by

Mariano Vázquez

ABSTRACT

As a physical system, the heart is an extremely complex multi-physics problem, tightly coupled. Electrophysiology is modelled by a time-dependent diffusion equation with a non-linear term involving the solution of up to 70 ODEs at each time step. Through a complex electromechanical model, it is coupled with mechanical deformation, which is modelled as a transient non-linear finite strain problem. In turn, solid mechanics is coupled to an incompressible flow motion, solved on a deforming domain either through ALE or IBM approaches. In this talk we will discuss all these features through several examples.

SPEAKER CV

Mariano Vázquez is research group leader in the Barcelona Supercomputing Center. He is one of the two main architects of Alya, a parallel multi-physics simulation code specifically designed to efficiently solve coupled complex problems in supercomputers, supervising around 50 developers and users from several disciplines. His research lines are on different aspects of computational mechanics, with a strong focus on biomedical research.

Critical Review:

The speaker, Mariano Vázquez started the presentation by introducing himself and his background, on the subject he was going to present.

He used a PowerPoint presentation to support his talk. I found it useful because he used lots of different animations, which helped us at understanding what he was talking about.

Nonetheless, he employed too many slides when trying to explain one simple concept. This can be due to try to make everyone listening comprehend the subject.

Mariano used a very understandable English and his speech was clear and concise. His way of gesticulating made it easy to follow the thread in every point of the presentation, this may be one of the most positives points. However, I have to add, that due to his condition, Mariano couldn't carry out his presentation standing up and this detail may be one of the things, which made him not the best communicator.

When Mariano was asked some questions he managed to answer all of them going back on his slides and explaining everything so it could be understandable for anyone.

To conclude, we can say that Mariano's Seminar was very interesting for me, making it more easily to follow and listen. The speaker managed to maintain the attention of his listeners the whole time. Although this voice tone was a bit monotone, his way of gesticulate and emphasising on important aspects in the presentation.