

**CRITICAL REVIEW OF CIMNE'S SEMINAR:
"BASIC IDEAS ON THE COUPLING OF VIRTUAL ELEMENT AND
BOUNDARY ELEMENT METHODS"**

This is a critical view from a communication skills point of view of CIMNE's seminar *Basic ideas on the coupling of virtual element and boundary element methods* [1]. A bit of background is key to make audience place into perspective the work presented. Dr. Gatica explains how he met his colleague S. Meddahi, with which he worked to set up the contents. At the same time, this action gives recognition to the other parts involved in this project.

A brief introduction explains in mundane words how domains must not be always quadrilateral (VEM), Franco Bresci et al., but can be more arbitrary. This is achieved by using bilinear *approximated* forms, not giving an explicit solution, which must be projected. This is followed by the explanation of the scope of the work, which is to combine VEM and the boundary element method (BEM) to numerically solve linear transmission problems in 2D and 3D. It is considered as a model an elliptic equation in an annular domain coupled with the Laplace equation in the corresponding unbounded exterior region.

Great amount of hand gesticulation is used along the explanations. Gesticulation eases understanding, however, given that the subject is not for legos, a lack of pauses to ask audience if they are following the explanations is missing. Pauses could also add better assumption of the concepts explained and set a better pace for the overall presentation.

Semi-chest voice is used with peaks of fast-speaking, which could be avoided, combining passive with active voice. A laser-kind pointer would be welcomed given that during approximation to the slides part of the audience could not see the content.

The citing of the formulae and its origins is a constant, giving credit to their authors.

At the half of the presentation, the speaker breaks the fourth wall, sharing his personal opinion, in which he assumes that not a method is better than other, and asserts VEM offers a more arbitrary mesh, but on the other hand more calculus. So dogmatism is avoided, one of the sins of speaking in public.

Again, when ending, is emphasized collaboration of Salim, whose work is still in progress with numerical method in coupling Helmholtz, non-linear problems, and mixing VEM and BEM. The references include basics recommend by Dr. Gabriel and an anecdote, always welcomed, on how an article was emitted and approved within the lapse of one week.

To finish, time answering questions was not contemptible and it was asked a question asking for what purpose was this work. While the answer was that it is not clear yet, this answer might have been raised by the speaker before ending.

[1] *Basic ideas on the coupling of virtual element and boundary element methods*,

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