

## ZZZZ266 - Validation of the option COOR\_ELGA of CALC\_CHAM\_ELEM

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### Summary:

This test validates in 2D and 3D the calculation of the coordinates of the point of Gauss using the order CALC\_CHAM\_ELEM.

### Modeling a:

The principle is to read the grid with the order LIRE\_MALLAGE, to affect a model using the order AFFE\_MODELE and to calculate the coordinates of the point of Gauss using the option COOR\_ELGA order CALC\_CHAM\_ELEM. There is thus no uncertainty on the results to obtain:

- For discrete of type "POI1" the point of Gauss is with the same position as the node.
- For discrete of type "SEG2" the point of Gauss is in the middle of the segment.

### Modeling b:

It acts of the same approach but for different modelings:

- For elements in plane deformations.
- For elements in plane constraints.
- For the elements of edge in three-dimensional modeling (faces and segments).

This documentation is voluntarily brief.