Operator **POST_CHAM_XFEM**

1. **Goal**

To create a SD Résultat containing the fields post-to treat method X-FEM.

It makes it possible to generate the following fields in order to post-treat them on the fissured grid:

- fields of displacements, constraints and internal variables following the resolution of a mechanical problem
- field of temperature following the resolution of a thermal problem

Product a concept of the type `resultat_sdaster`.

The order **POST MAIL XFEM** [U4.82.21] which makes it possible to generate the fissured grid is essential before the use of **POST_CHAM_XFEM**.
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3 Syntax

resu2 [resultat_sdaster] = POST_CHAM_XFEM (

♦ RESULT  =  resu,
          [sd_evol_elas]
          [sd_evol_noli]
          [sd_mode_meca]
          [sd_evol_ther]

♦ MODELE_VISU  =  Mo,
          [modele_sdaster]
)

4 Operands

♦ MODELE_VISU

Name of the model of visualization based on the grid of visualization, produced by the order POST_MAIL_XFEM [U4.82.21].

♦ RESULT

Name of the concept result resulting beforehand from MECA_STATIQUE, STAT_NON_LINE, of an operator of modal calculation (MODE_ITER*) or of THER_LINEAIRE. In the case of a concept result resulting from MECA_STATIQUE or of STAT_NON_LINE fields post-treaties are ‘DEPL’, ‘VARI_ELGA’, ‘SIEF_ELGA’ (provided the fields exist in the structure of data result). In the case of a concept result resulting from one MODE_ITER* L only the field ‘DEPL’ can be post-treaty. In the case of a concept result resulting from THER_LINEAIRE, only the field ‘TEMP’ can be post-treaty.

If the concept result as starter contains the map of the behavior, this one is also transferred in the result at exit. This map is sometimes essential post-to treat fields (such as for example the field DERA_ELGA).

Caution: the concept result product by POST_CHAM_XFEM does not contain by the material field (sd cham mater). However certain options of postprocessing (like EPSI_ELGA) need a material field. It is thus sometimes necessary to recreate a material field starting from the grid resulting from POST_MAIL_XFEM.

For more details, to see [U2.05.02] which illustrates the implementation of a complete postprocessing after a calculation X-FEM.
5 Examples of use

5.1 Bar fissured with X-FEM (treated by test SSNV173A)

5.1.1 Visualization of the field displacement obtained by \texttt{POST\_CHAM\_XFEM}