Code_Aster

Titre : Opérateur FONC_FLUI_STRU
Responsable : BERRO Hassan

Version default

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Clé : U4.35.02 Révision :
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Operator FONC_FLUI_STRU

1 Goal

To create a constant function parameterized by the curvilinear X-coordinate. This function gives the value of the coefficient of mass added for a configuration of standard "the tube bundle under transverse flow".

This function is used downstream by operator DEFI_MATERIAU [U4.43.01], keyword factor ELAS_FLUI. Product a concept of type function.

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2 Syntax

```
fonc_cm  [function] = FONC_FLUI_STRU  (

        ♦   TYPE_FLUI_STRU  =  typeflui,      [type_flui_stru]

                          )
```

3 Operands

3.1 Keyword TYPE_FLUI_STRU

♦   TYPE_FLUI_STRU = typeflui

Concept of the type [type_flui_stru] produced by operator DEFI_FLUI_STRU [U4.25.01], providing the value of the coefficient of added mass C_m.

Note:

The value of C_m can be imposed via the keyword COEF_MASS_AJOU appearing in the order DEFI_FLUI_STRU . If the coupling fluidelastic is taken into account, the coefficient of added mass can be calculated by the operator according to the other characteristics of the beam.

The operator FONC_FLUI_STRU create a concept of the type [function] who is then directly usable by DEFI_MATERIAU [U4.43.01], keyword ELAS_FLUI .

The function constant, is parameterized by the curvilinear X-coordinate, and gives the value of C_m .

The combined use of the operators FONC_FLUI_STRU then DEFI_MATERIAU option ELAS_FLUI is necessary when one studies a configuration of standard "the tube bundle under transverse flow", and it is allowed only for this kind of configurations.