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## Operator FONC\_FLUI\_STRU

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### 1 Goal

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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.

## 2 Syntax

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```
fonc_cm [function] = FONC_FLUI_STRU (
        ♦ TYPE_FLUI_STRU = typeflui, [type_flui_stru]
        )
```

## 3 Operands

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### 3.1 Keyword TYPE\_FLUI\_STRU

- ♦ TYPE\_FLUI\_STRU = typeflui

Concept of the type [type\_flui\_stru] produced by operator DEF\_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 DEF\_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 DEF\_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 DEF\_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.*