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## Operator CALC\_CHAR\_CINE

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### 1 Goal

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To calculate the field with the nodes corresponding to the degrees of freedom imposed by AFPE\_CHAR\_CINE.

This field with the nodes thus calculated will have to be used at the time of the resolution of the linear system with the operator TO SOLVE [U4.51.02].

This operator is useful only for calculations “step by step” where one solves the linear systems by the order TO SOLVE.

Product a structure of data of the type cham\_no.

## 2 Syntax

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```
u0 [cham_no_*]      = CALC_CHAR_CINE
                    (
                      ♦ NUME_DDL = naked      ,           [nume_ddl]
                      ♦ CHAR_CINE = chci      ,           / [l_char_cine_meca]
                                                              / [l_char_cine_ther]
                                                              / [l_char_cine_acou]

                      ◇ INST = / T      ,           [R]
                                                              / 0.0 ,           [DEFECT]

                      ◇ INFORMATION = / 1      ,           [DEFECT]
                                                              / 2      ,

                    )
```

```
If CHAR_CINE : [l_char_cine_meca] then [*]  DEPL_R
               [l_char_cine_ther]  [*]  TEMP_R
               [l_char_cine_acou]  [*]  PRES_C
```

## 3 Operands

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### 3.1 Operand NUME\_DDL

- ◆ NUME\_DDL = naked

Name of classification associated with the matrix which will be used for the resolution.

### 3.2 Operand CHAR\_CINE

- ◆ CHAR\_CINE = l\_chci

List of the names of the loads kinematics to be evaluated.

cham\_no calculated will contain:

- the value 0 on the degrees of freedom which are not imposed,
- the specified value by the loads kinematics on the degrees of freedom which are imposed.

#### Caution:

If a degree of freedom is imposed several times (if it appears in several loads kinematics of the list l\_chci), the specified value on this degree of freedom will be **nap** specified values, which is undoubtedly not what the user wishes!

This dangerous behavior is unfortunately supplied with no alarm.

If the kinematic load is of type `function`, the specified value in a degree of freedom is that obtained by evaluation of the function to the coordinates of the node carrying the degree of freedom and at the moment  $T$  [§3.3].

### 3.3 Operand INST

- ◇ INST = T

Moment being used to evaluate possible functions of time [§3.2].

### 3.4 Operand INFORMATION

- ◇ INFORMATION = impr

Parameter of impression:

- 1 : (defect) not of impression,
- 2 : impression of cham\_no\_\* result.

## 4 Examples

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An example of using sequence of orders CALC\_CHAR\_CINE is given in the documentation of the order AFFE\_CHAR\_CINE [U4.44.03].