

Namelist "External_Force"

This data set is used to define an external force that steers the flow. Otherwise, it can be omitted.

Full data set of the namelist

```
&External_Force  Force_Option_I_Direction= 0          ,
Force_Option_J_Direction= 0      , Force_Option_K_Direction= 0 ,
                                Force_Reference_Value_I_Direction= 0.0,
Force_Reference_Value_J_Direction= 0, Force_Reference_Value_K_Direction= 0.0
/
```

Definition of the data set

Force_Option_I_Direction

- Type : Integer value
- This option selects the type of force on the I-component of the force vector.
 - 0 : the force component is zero
 - 1 : the force component is constant
 - 2 : the force component is time dependent and depends on the mass flowrate (special case used for the simulation of a channel flow with periodical boundary conditions).
 - 3 : the force component is time dependent and depends on both mass flowrate and wall friction (special case used for the simulation of a channel flow with periodical boundary conditions).
- Default value = 0

Force_Option_J_Direction

- Type : Integer value
- This option selects the type of force on the J-component of the force vector (see above).
- Default value = 0

Force_Option_K_Direction

- Type : Integer value
- This option selects the type of force on the K-component of the force vector (see above).
- Default value = 0

Force_Reference_Value_I_Direction

- Type : Real value
- Reference value of the force component along the I-direction.
- Default value = 0.0

Force_Reference_Value_J_Direction

- Type : Real value
- Reference value of the force component along the J-direction.
- Default value = 0.0

Force_Reference_Value_K_Direction

- Type : Real value
- Reference value of the force component along the K-direction.
- Default value = 0.0

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<https://sunfluidh.lisn.upsaclay.fr/> - Documentation du code de simulation numérique

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