

# A simple example of data setting

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The cell size is variable along the I-direction.



- The I-line is split in two equal parts.
- The function “TANH\_ONE\_SIDE” is applied over each part, with a reverse distribution over the 2nd part. This way is useful to define a perfect symmetrical distribution in regard to the mid-plane.

The grid is regular along the J-direction.

[data\\_meshgen.dat](#)

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      DATA FILE FOR THE MESH GENERATOR MESHGEN (DESCRIPTIONS OF
DATA ARE GIVEN BELOW)
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Blocks of data are associated to segments along a specific direction  
(There are as many blocks as segments)

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I-DIRECTION

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Choice of the metric system : in meter or dimensionless (0) -  
angular in degrees (1) :  
&METRIC\_UNIT Type\_of\_Metric= 0 /  
&MESH\_FUNCTION\_DATA Function\_Name="TANH\_ONE\_SIDE" Number\_of\_Cells= 32  
Length= 0.5 Left\_Cell\_Size= 7.8125d-03 Reverse\_Ordering= .false. /  
&MESH\_FUNCTION\_DATA Function\_Name="TANH\_ONE\_SIDE" Number\_of\_Cells= 32  
Length= 0.5 Left\_Cell\_Size= 7.8125d-03 Reverse\_Ordering= .true. /  
&MESH\_FUNCTION\_DATA End\_of\_Data\_Block = .true./

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J-DIRECTION

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Choice of the metric system : in meter or dimensionless (0) -  
angular in degrees (1) :  
&METRIC\_UNIT Type\_of\_Metric= 0 /  
&MESH\_FUNCTION\_DATA Function\_Name="REGULAR" Number\_of\_Cells= 64  
Length= 1.0 Reverse\_Ordering= .false. /

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&MESH_FUNCTION_DATA End_of_Data_Block = .true./  
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K-DIRECTION  
-----  
&MESH_FUNCTION_DATA End_of_Data_Block = .true./  
END OF FILE
```

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From:

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



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