## Algorithm 1 Compute index of nearest grid point given particle position (1D)

```
1: function FINDMESHINDEX(position, nGrid)
2:    index = math.floor(position + 0.5) + ((nGrid/2) + 1)
3:    if index = -1 then
4:       index = nGrid - 1
5:    end if
6:    index
7: end function
```