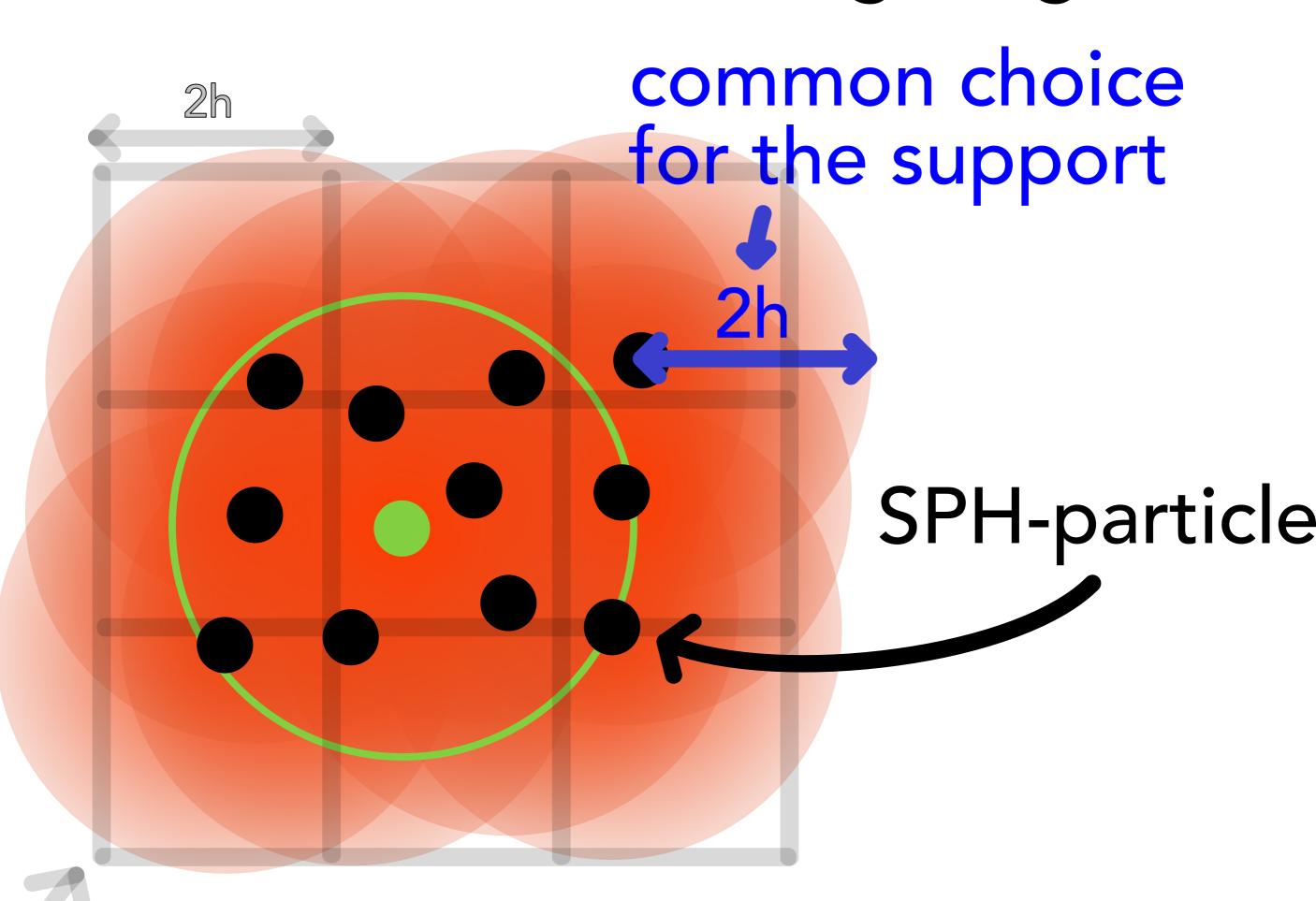
## illustration for the case of constant smoothing length h



highlighted SPH-particle to better see the support

the auxiliary grid can be used to find neightbors that can potentially contribute to the density at the green particle (and all others in this grid-cell)