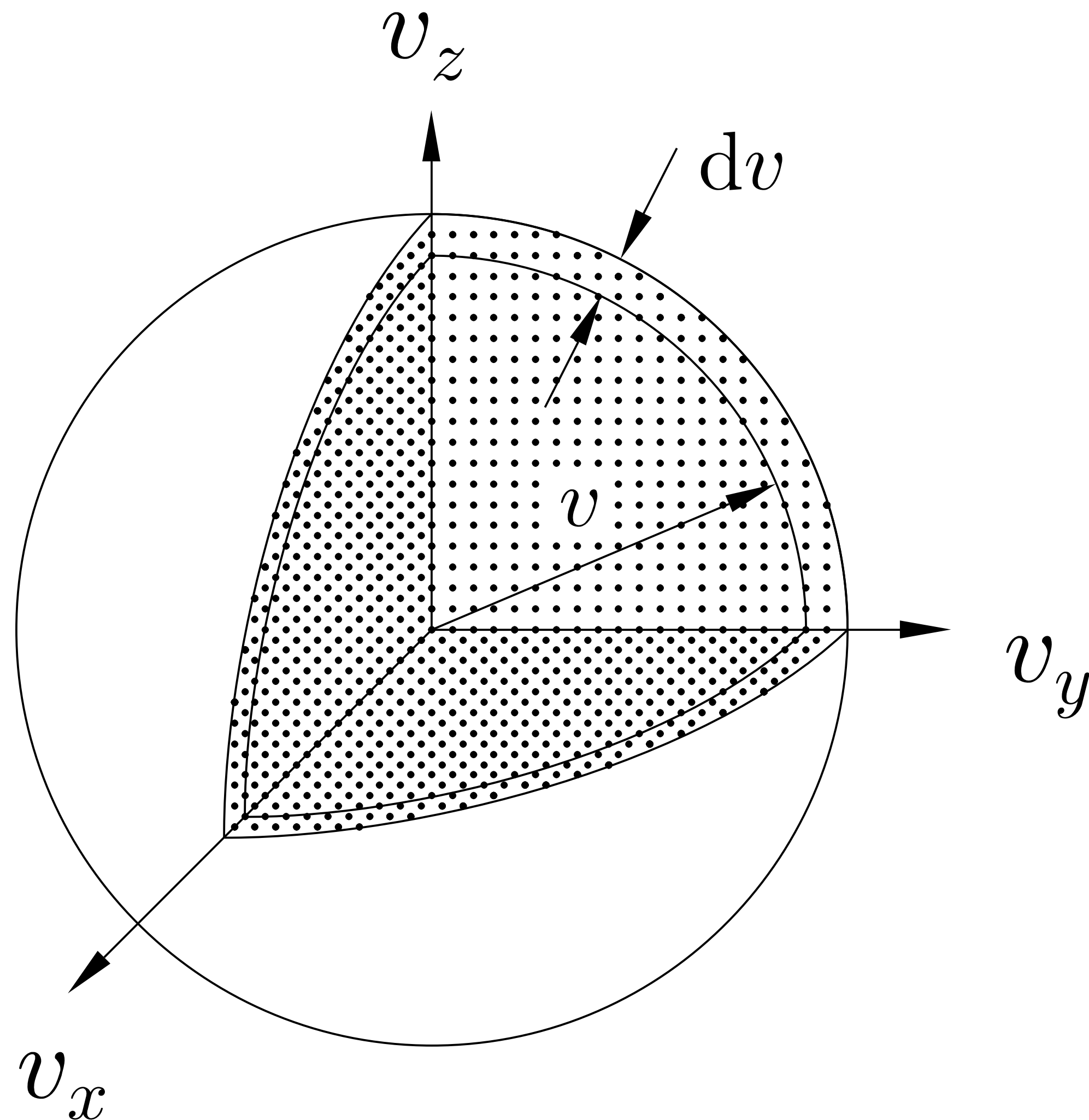


# Probability of speed $v$

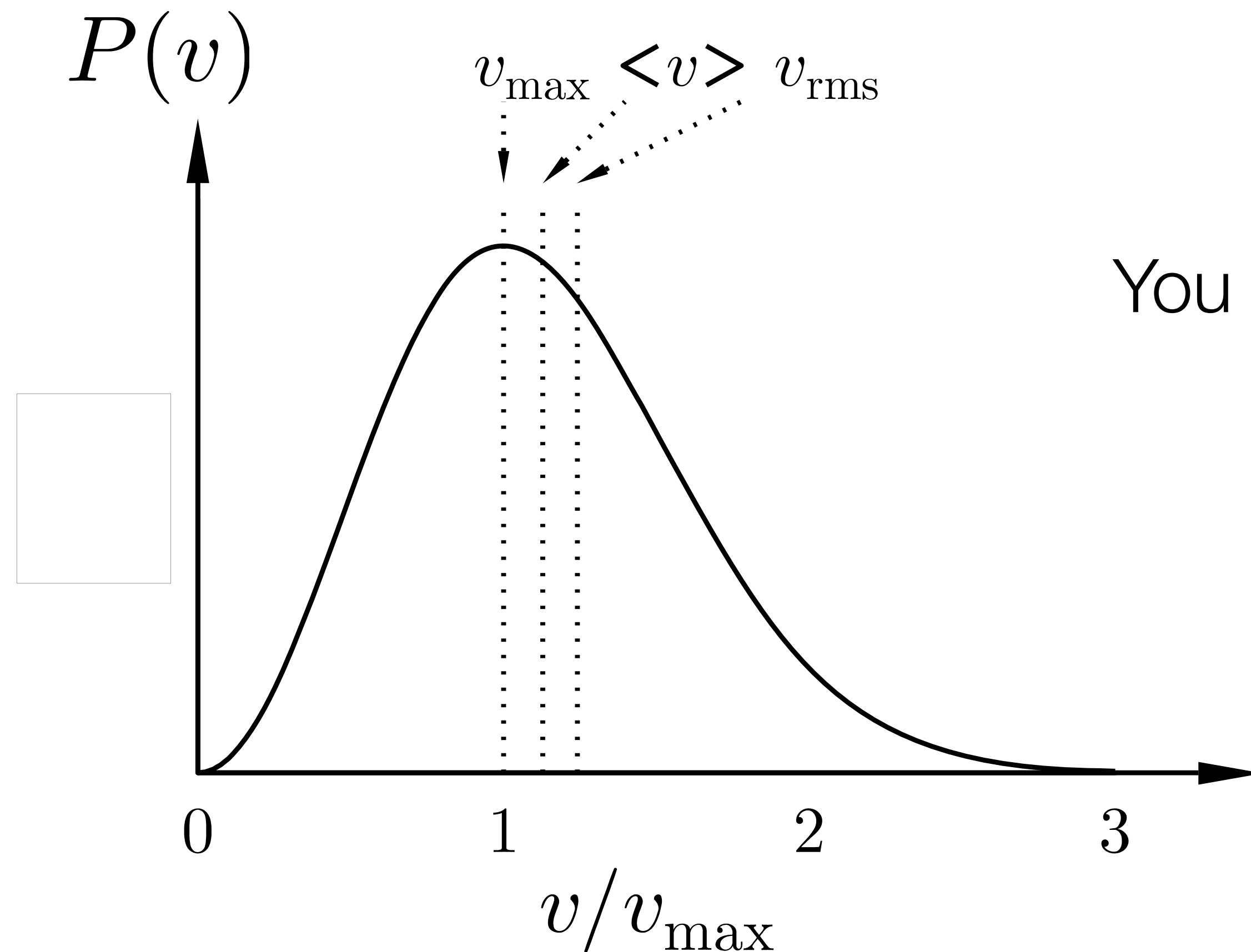
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**Fig. 5.3** Molecules with speeds between  $v$  and  $v + dv$  occupy a volume of velocity space inside a spherical shell of radius  $v$  and thickness  $dv$ . (An octant of this sphere is shown cut-away.)

More things to compute — in homework :)

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You can find  $v_{\text{max}}$  (the most probable speed)  
by differentiation  $dP(v)/dv = 0$