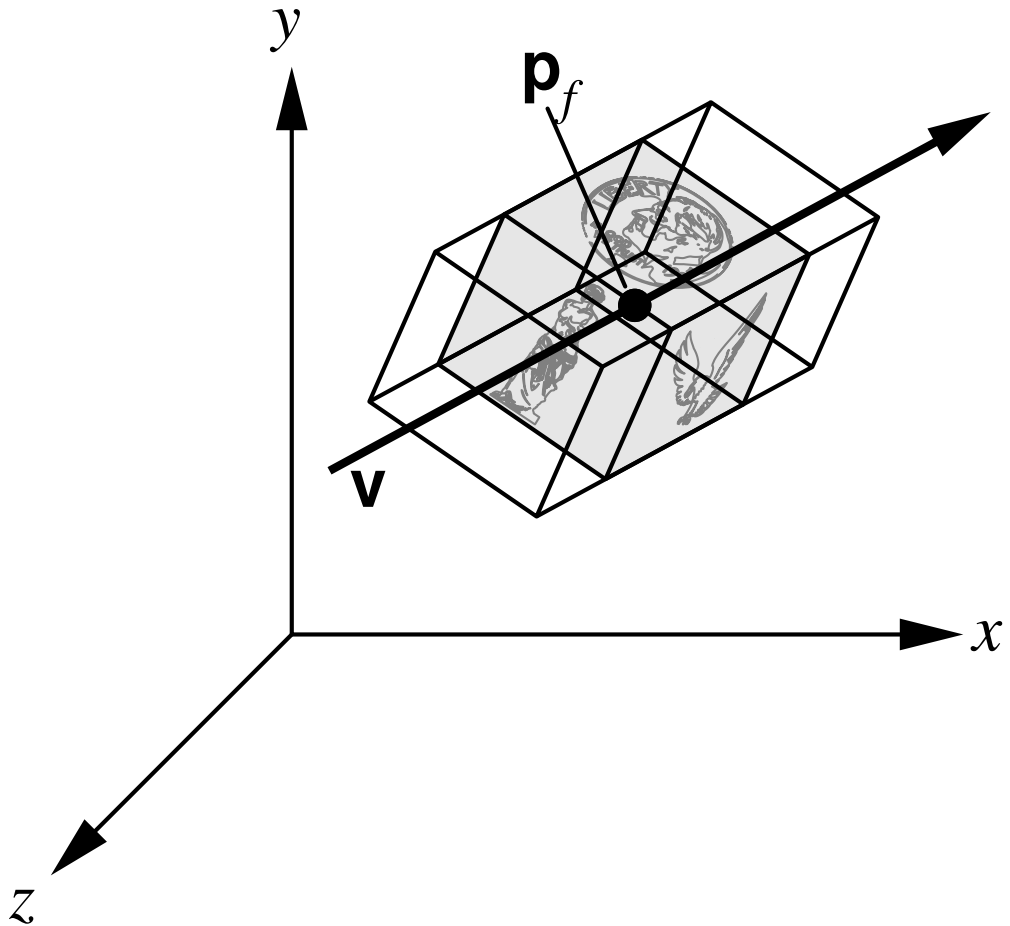
y
$\mathbf{p}_f$
v
x
z