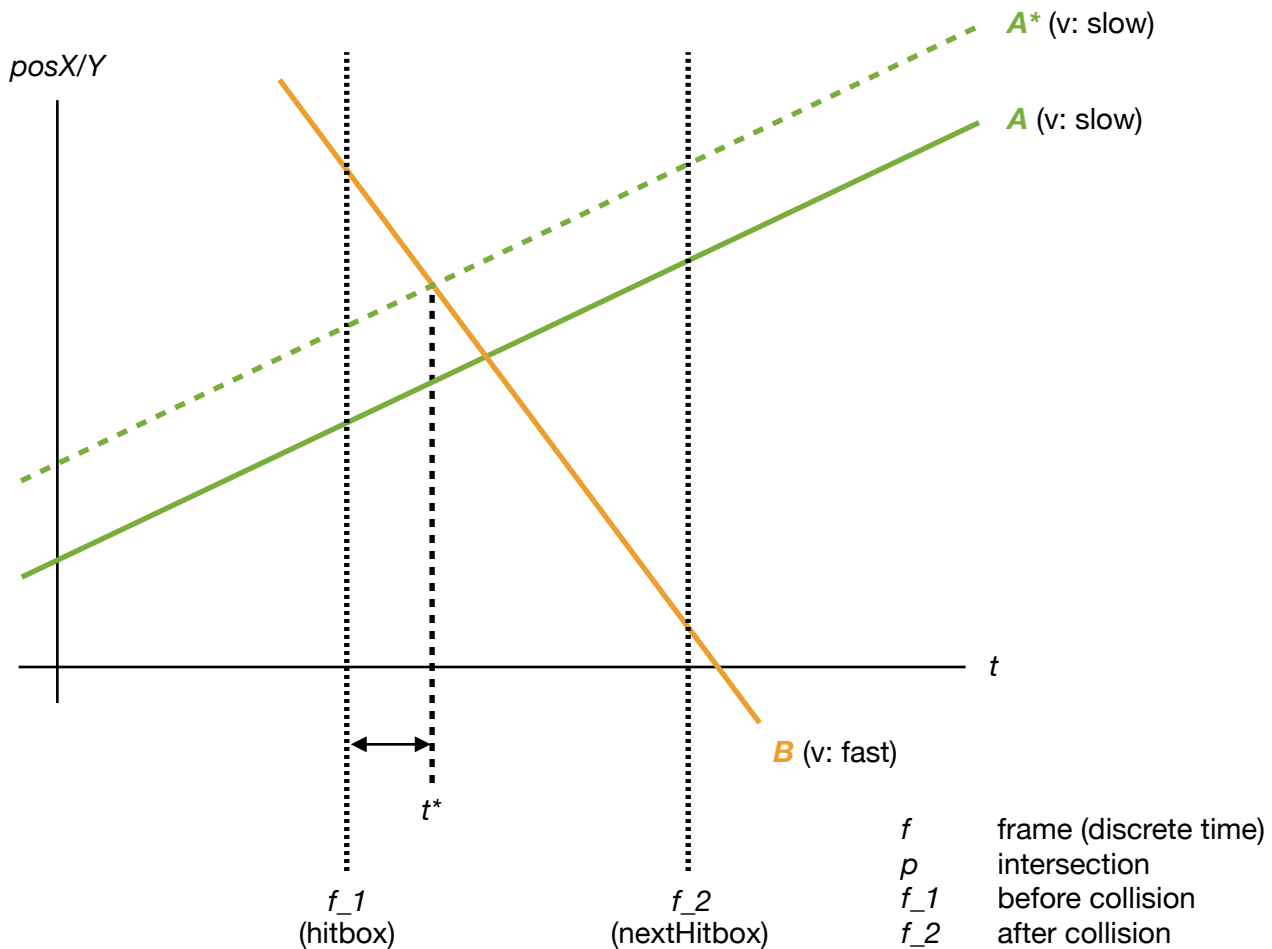


Compensating penetration by linear interpolation



Procedure

1. From **ObjA** and **ObjB**, create linear function **A*** and **B** s.t. $f_1 \leq t \leq f_2$
2. Find intersection of **A*** and **B**, store it to $p(m, n)$
3. **ObjA.pos** $\leftarrow p.n - \text{ObjA.size}$, **ObjB.pos** $\leftarrow p.n$

Creating linear function from the object

1. $A := at + b$. From **ObjA**,
2. **ObjA[t]** : position of **ObjA** at the t time
3. tick : time length of each frame
4. $a := (\text{ObjA}[f_2].\text{pos} - \text{ObjA}[f_1].\text{pos}) / \text{tick}$
5. $b := \text{ObjA}[f_1].\text{pos}$ (+ **ObjA.size** if starred)
6. return **A(t)**

Finding intersection $p(m, n)$

1. Assuming two inputs of $(y = ax + c)$ and $(y = bx + d)$
2. $m = (d - c)/(a - b)$, $n = (ad - bc)/(a - b)$
3. return $p(m, n)$