

**Algorithm 1:** Handover adaption

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for  $i \leftarrow 1$  to  $length(trajjectory)$  do Adaption loop
    allowedSpeed ← MaxSpeed(trajjectory[i]);
    c ← trajjectory[i];
    p ← trajjectory[i-1];
    n ← trajjectory[i+1];
    /*speed overrun*/
    if  $Speed(c) \geq 1.7 * allowedSpeed$  then
        cDist ← Distance(c);
        pDist ← Distance(p);
        nDist ← Distance(n);
        nominalDist ← allowedSpeed * Duration(c);
        SetSpeed(c, allowedSpeed);
        if  $p == NULL \ \&\& \ n \neq NULL$  then
            pDist ← pDist + (cDist - nominalDist);
            SetSpeed(p, pDist / Duration(p));
        else if  $p \neq NULL \ \&\& \ n \neq NULL$  then
            nDist ← nDist + (cDist - nominalDist);
            SetSpeed(n, nDist / Duration(n));
        else
            nTempDist ← nDist + (cDist - nominalDist) / 2;
            pTempDist ← pDist + (cDist - nominalDist) / 2;
            if  $nTempDist / Duration(n) \gg nominalSpeed$  then
                nTempDist ← nDist;
                pTempDist ← pDist + (cDist - nominalDist);
            else if  $pTempDist / Duration(p) \gg nominalSpeed$  then
                nTempDist ← nDist + (cDist - nominalDist);
                pTempDist ← nDist;
            SetSpeed(n, nTempDist / Duration(n));
            SetSpeed(p, pTempDist / Duration(p));
    end
```