

## Algorithm 1: Handover adaption

```
for  $i \leftarrow 1$  to  $length(trajjectory)$  do Adaption loop
    allowedSpeed $_i$  = 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  $p == NULL \&\& n != NULL$  then
            pDist = pDist + (cDist - nominalDist);
            SetSpeed(p, pDist / Duration(p));
        else if  $p != NULL \&\& n != NULL$  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
```