

```

proc ralentizar (inout r: reunion, in prof:  $\mathbb{Z}$ , in freq:  $\mathbb{Z}$ ) {
  Pre {esReuniónVálidaAux(r, prof, freq)  $\wedge$   $r_0 = r$ }
  Post {
     $|r| = |r_0| \wedge_L$ 
    lasSeñalesTienenElDobleDeMuestras(r,  $r_0$ )  $\wedge_L$ 
    promedioEntrePares(r,  $r_0$ )
  }
}

pred lasSeñalesTienenElDobleDeMuestras (r: reunion,  $r_v$ : reunion) {
  ( $\forall i : \mathbb{Z}$ )  $0 \leq i < |r_v| \longrightarrow_L (2 \cdot |r_v[i]_0|) = (|r[i]_0| + 1)$ 
}

pred promedioEntrePares (r: reunion,  $r_v$ : reunion) {
  ( $\forall i : \mathbb{Z}$ )  $0 \leq i < |r| \longrightarrow_L ($ 
    ( $\exists j : \mathbb{Z}$ )  $0 \leq j < |r_v| \wedge_L (r[i]_1 = r_v[j]_1) \wedge_L ($ 
      ( $\forall q : \mathbb{Z}$ )  $0 \leq q < |r[i]_0| \longrightarrow_L$ 
        if esPar(q) then  $r[i]_0[q] = r_v[j]_0[\frac{q}{2}]$  else  $r[i]_0[q] = \frac{r_v[j]_0[\frac{q-1}{2}] + r_v[j]_0[\frac{q+1}{2}]}{2}$  fi ) )
    )
}

```