finition 11 (Overshot trimming). We define the forward overshot-trimmed ole ensemble.  $\begin{cases} (x_0, \dots, x_{k-1}) & if (x_0, \dots, x_k) \notin \mathbb{E}_{over}^+ \\ & and (x_0, \dots, x_{k-1}) \in \mathbb{E}_{over}^+ \end{cases}$ - F<sup>-</sup>. Since candidate traj semble is unstoppable. me there's some (xp+1) = XI, Whice Ethat its common. there can be Path Ensemble Theory So XE can not e Assume and Edwin. in E. By the defin Me call amily the earne are trained. se that first result Ssume that  $x_l \notin \mathbb{R}^+$  for  $l \in \mathbb{R}^+$  for any stop: (in development) However, we know that  $(x_0, \dots, x_{p-1}) \in \mathbb{R}^+$ , for  $\mathbb{R}$  be of Let H be a stoppable ensemble. Assu bow that  $X_l \in \mathbb{R}^+$  for l on any l P. Take ar  $(a, \dots, x_{E}, B_{ut})^{*}$ is not a subtrajectory of Take any initial frame no en.  $(x_0, \dots, x_{p+1})$  is a be "forward-first efficient" if, for any forward-first in  $\mathbf{x}_E = \mathbf{x}$  where  $\mathbf{x}_E \in \mathbb{E}$  implies the similarly, with "efficient"  $\mathbf{r}_{\mathbf{x}_E}$  is defined similarly, with "efficient"  $\mathbf{r}_{\mathbf{x}_E}$ .

## Path Movers

OneWayShootingMover

{TwoWayShootingMover}

{ShootingPointModifier}

ShootingMover

ShootingPointSelector

UniformSelector

{BiasedSelector}

Factory: OneWayShootingSet

{Factory: TwoWayShootingSet}

**PathMovers** 

NeighborReplicaExchange

(AllReplicaExchange)

ReplicaExchangeMover

**PathReversalMover** 

MinusMover

**EnsembleHopMover** 

MixedMover

SequentialMover

MC in path space: always require an initial path