

## Multiobjective Generation Framework

Generate Initial Population  $Y_0^{[N]}$  of size  $N$  as  $Y_0^{[N]} \sim G(Y_0 | X_1, X_2)$

Evaluate  $F(Y_0^{[N]})$  for all sequences

$i = 1$

Pretrained Generative Model

$i = i + 1$

Generate  $M$  offspring from population  $Y_i^{[M]}$  as  $Y_i^{[M]} \sim G(Y_i^{[M]} | X_1, X_2, Y_{i-1}^{[N]})$

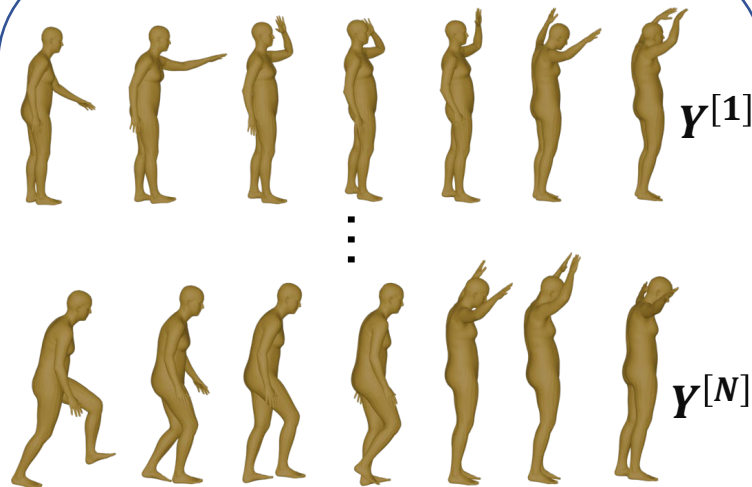
Evaluate  $F(Y_i^{[M]})$  for all sequences

Select top  $N$  sequences,  $Y_i^{[N]}$ , from population  $Y_i^{[M]}$  and  $Y_{i-1}^{[N]}$  using nondominated sorting, crowding distance

$i = I_{max}?$

No

Yes



Diverse in-betweening human motion sequences generation