

Event Prediction & Cancellation Pipeline

INPUT

Real Event
(x, t, p)

Motion
(ω, center)

PREDICTION

Forward Predict
 $x' = R(x, \omega \cdot \Delta t)$
 $t' = t + \Delta t$

Prediction Buffer
(x', t', p)

GATING

Temporal
 $|t - t'| \leq \epsilon_t?$

Spatial
 $\|x - x'\| \leq \epsilon_{xy}?$

Polarity
 $p \neq p'?$

MATCHING

X No

Mutual Nearest
Neighbor Match

X No

Cancelled
matched

Paired

Residual
(unmatched)

OUTPUT

Orphan

X No

✓ Yes

✓ Yes

✓ Yes