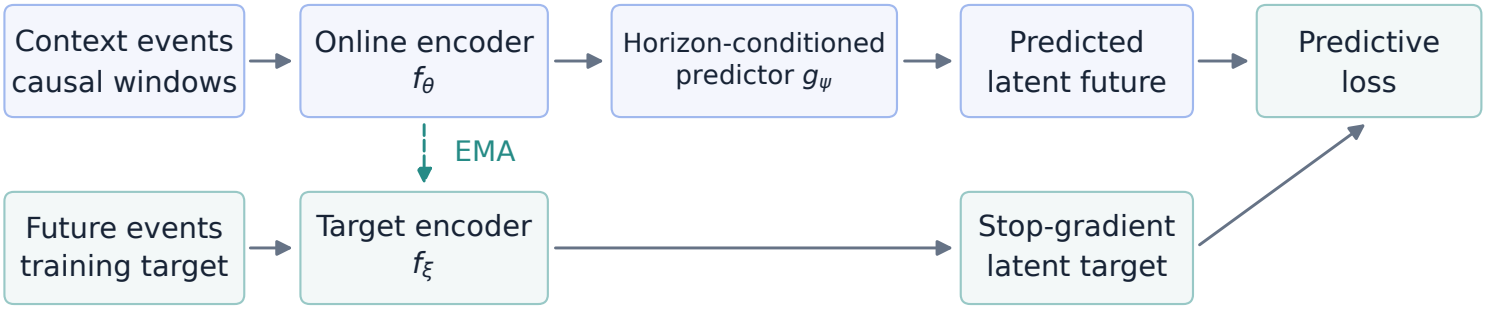
A Predictive representation learning



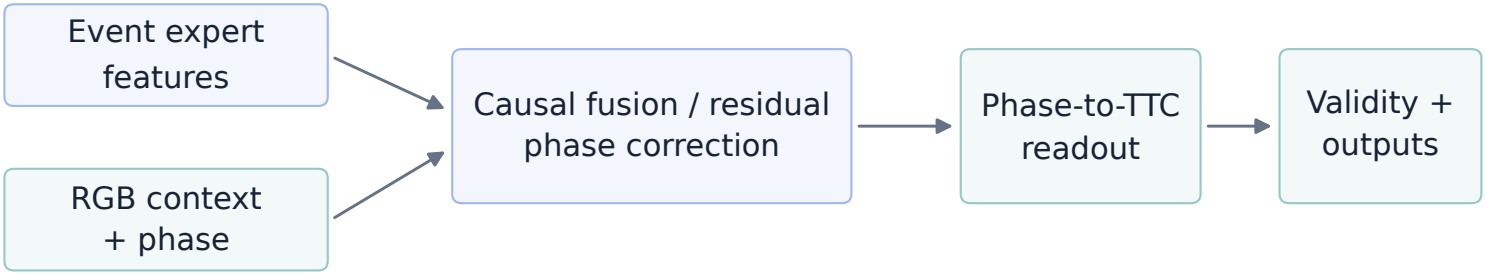
Configured predictive losses use future-event targets during training.

B Causal event geometry and transport



Geometry-supervised training; prefix-causal inputs at inference.

C Multimodal causal phase correction



Family schematic. Controls: TRUE / ZERO; SHUFFLE / REPEAT where executed.