

Table 1: Mean relative deviation achieved by different ablations (c.f. Table 1 in the paper).

Method	Wind Speed	Temperature	Precipitation
Ours	100.0 %	100.0 %	100.0 %
w/o steps	89.6 % (-10.4)	92.2 % (-7.8)	70.8 % (-29.2)
w/o approx	57.6 % (-42.4)	78.2 % (-21.8)	46.8 % (-53.2)
w/o both	55.8 % (-44.2)	69.7 % (-30.3)	28.2 % (-71.8)

Table 2: Detectability of different approaches used to fabricate extreme weather deviations (c.f. Table 2 in the paper).

Method	Wind Speed	Temperature	Precipitation
AdvDM	100.0 %	97.34 %	100.0 %
DP-Attacker	82.78 %	43.06 %	79.41 %
Ours	3.28 %	4.69 %	0.11 %

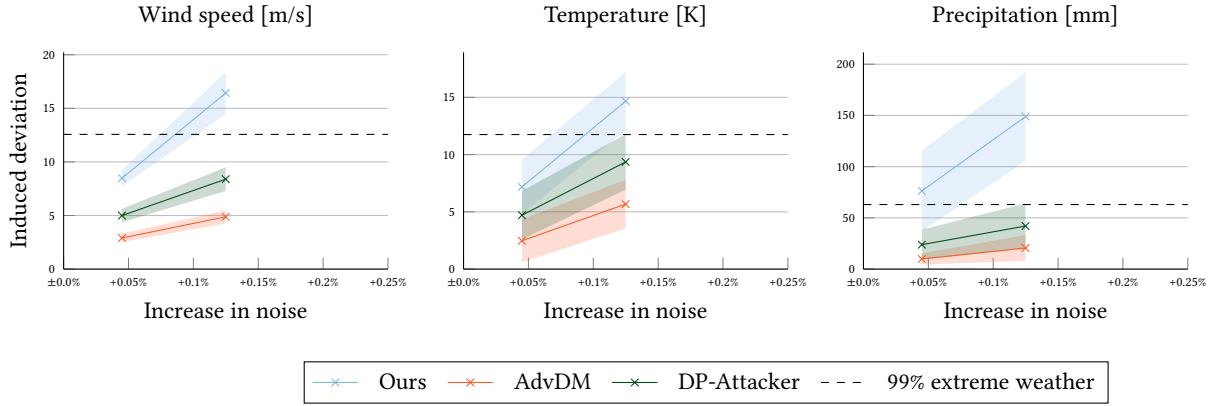


Figure 1: Resulting mean deviation induced by adversarial observations of different sizes (c.f. Figure 2 in the paper).

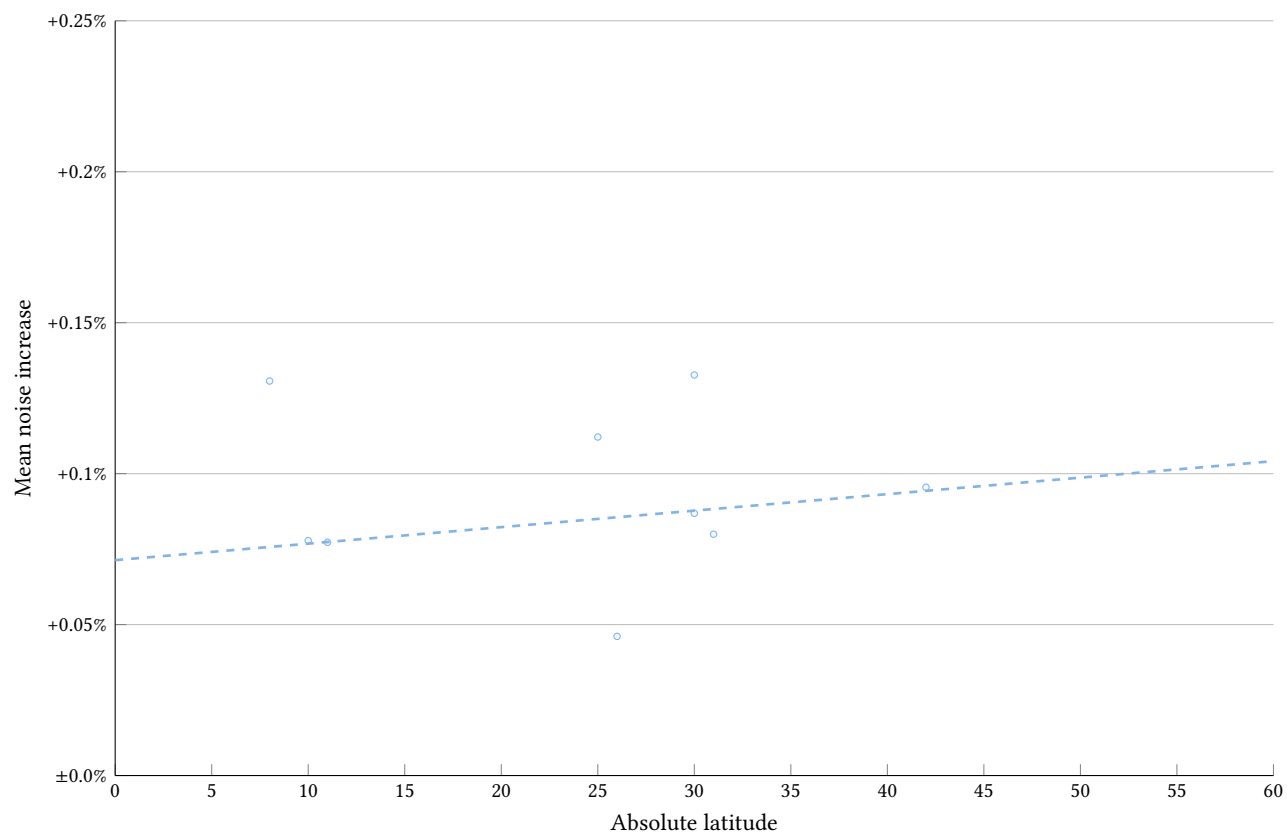


Figure 2: Mean required noise increase at different locations (c.f. Figure 3 in the paper).

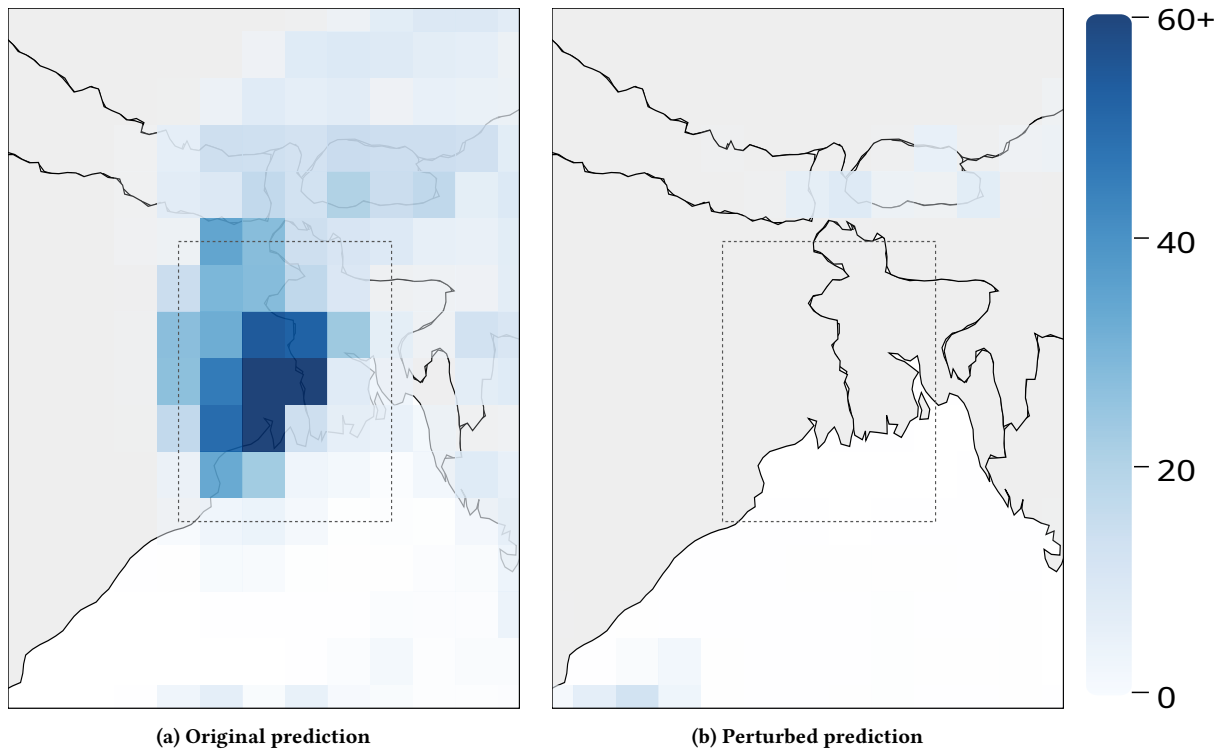
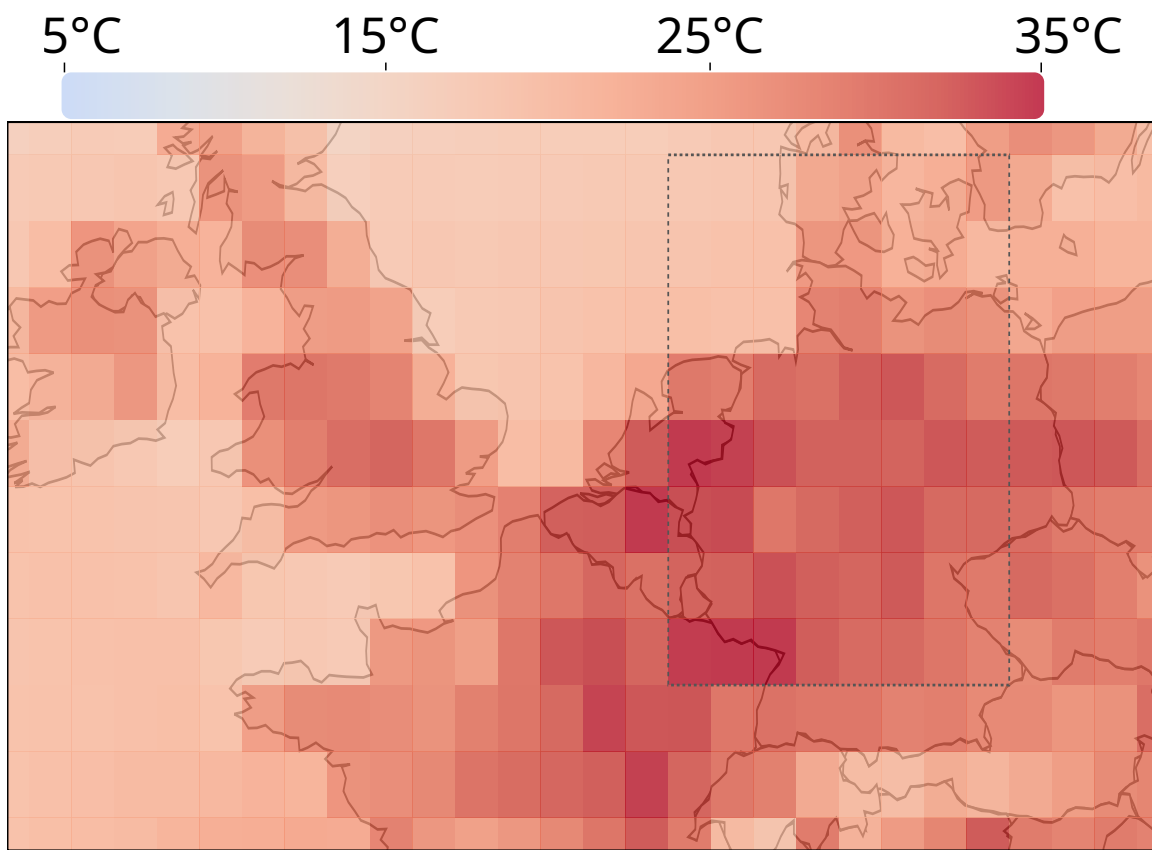
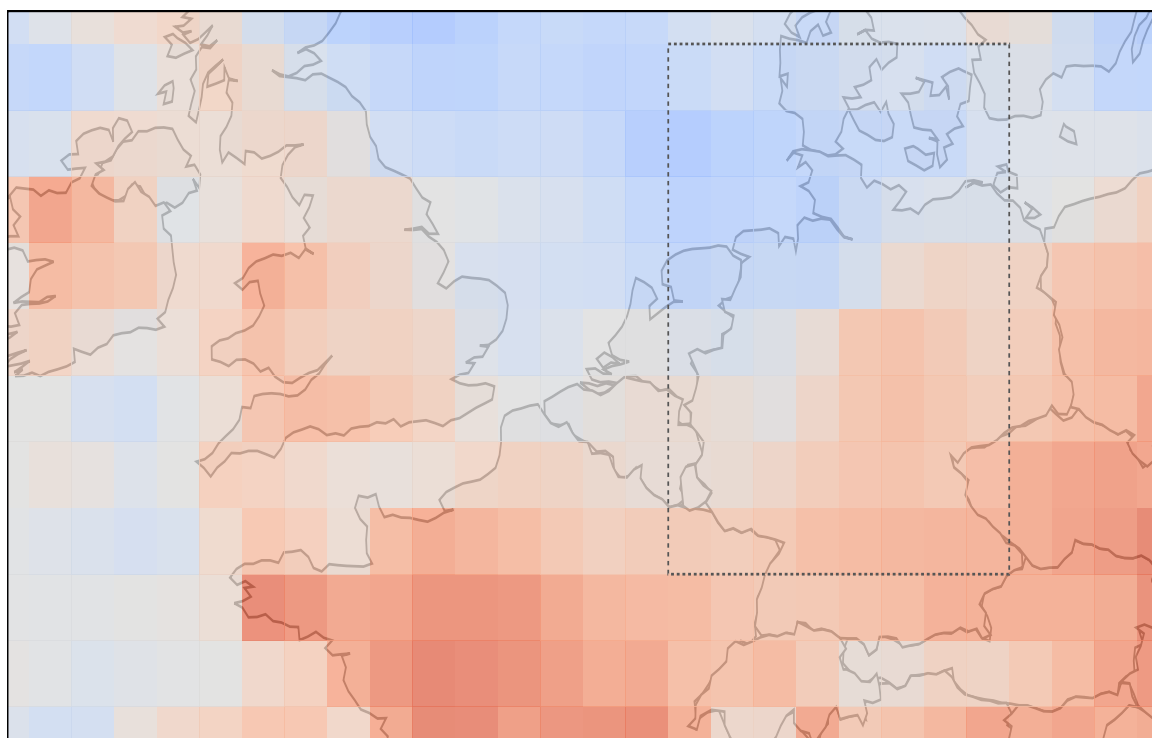


Figure 3: Predicted precipitation at the peak of Cyclone Amphan (c.f. Figure 4 in the paper).



(a) Original prediction



(b) Perturbed prediction

Figure 4: Predicted temperature at the peak of the European Heat Wave 2006 (c.f. Figure 5 in the paper).

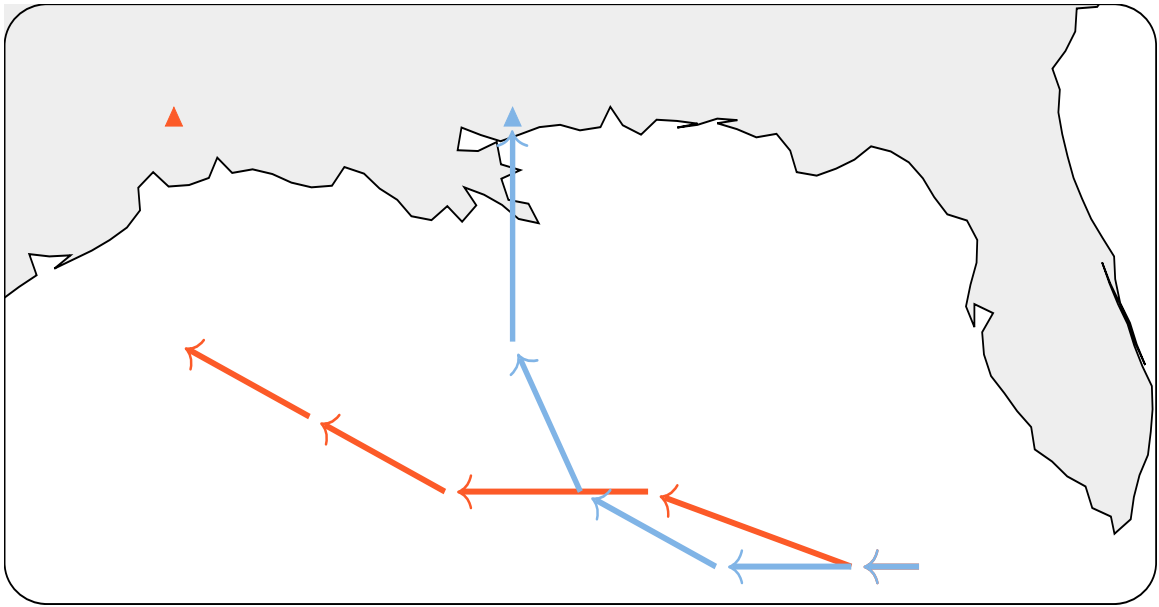


Figure 5: Predicted storm path of Hurricane Katrina (c.f. Figure 6 in the paper).