



A contour plot of a loss function $L_B(w)$ with elliptical level sets. The background is a heatmap where colors range from blue (low loss) to red (high loss). The center of the ellipses is white, representing the minimum. A gray dot on the left represents the current parameter value $w(t)$. A gray line segment connects it to a black dot, representing the next step $w(t+1)$ in the gradient descent process. A short black line segment connects the black dot to the center, illustrating the direction of the negative gradient.

$$w(t+1) = w(t) - 0.3 \nabla L_B(w(t))$$