

On the sixth page, formula (5), the distance from \mathbf{x}_i to hyperplane, what I learned in the Machine Learning lecture, there was no square in denominator. Here is the formula in our lecture notes.

Therefore, point-plane distance from point \mathbf{z} to plane $\{\mathbf{x} : \mathbf{w}^T \mathbf{x} + b = 0\}$ is

$$|r| = \frac{|\mathbf{w}^T \mathbf{z} + b|}{\|\mathbf{w}\|}$$

Besides, if there's square in denominator, then when numerator is 1, then the margin should be $2/\|\mathbf{w}\|^2$, but not as what is written in the paper as $2/\|\mathbf{w}\|$. So, I think that there's no square in formula (5).