Assume that our population follows the model where the log-odds of $y$ are linear given $x$ with bias and coefficients $\omega_0$ and $\omega$ as before. Assume also that we expect that the true parameter $\omega$ is likely to be sparse. The targets are in $\pm 1$.

State:

- the appropriate loss function $\ell(u, v)$ for fitting the data,
- the appropriate regularizer $\Omega(\omega)$,
- and the objective function for learning the parameters $\omega_0$ and $\omega$ using RERM, given that we have $n$ training examples.