

## $\leftarrow \text{Event}\left\{\underline{\mathbf{z}}_{p+1},\ldots,\underline{\mathbf{z}}_{2p}:\varphi^{\Lambda}_{(2p,\underline{\mathbf{w}}^*)}>\eta-\frac{1}{p}\right\}$

Event 
$$\{\underline{\mathbf{z}}_{p+1}, \dots, \underline{\mathbf{z}}_{2p} : \varphi_{(2p,\underline{\mathbf{w}}^*)}^{n} > \eta - \underline{\mathbf{z}}_{2p} : \mathbf{z}_{p+1}, \dots, \underline{\mathbf{z}}_{2p} : R_{emp(\underline{\mathbf{w}}^*)}^{(p,2)} > R_{(\underline{\mathbf{w}}^*)} - \underline{\mathbf{z}}_{p}\}$$