

Theorem: Let  $\varepsilon > 0$  be given. Then  $\exists \delta > 0$  such that choosing  $\mathcal{D}_2$  as a  $\delta$ -net of  $S^n$ , we get an  $\varepsilon$ -approximation of  $\text{conv}(F)$  in

$$O\left(\frac{n^2 \bar{V}_{\text{LIP}}^2 (\text{diam}(C_0))^6}{\varepsilon^4} \ln\left(\frac{\bar{V}_{\text{LIP}} (\text{diam}(C_0))^2}{\varepsilon \text{diam}(F)}\right)\right)$$

↖ SSILP

$$O\left(\frac{n^2 \bar{V}_{\text{LIP}}^2 \bar{V}_{\text{nc}}^2 (\text{diam}(C_0))^6}{\varepsilon^4} \ln\left(\frac{\bar{V}_{\text{LIP}} (\text{diam}(C_0))^2}{\varepsilon \text{diam}(F)}\right)\right)$$

↖ SSDP

major iterations.