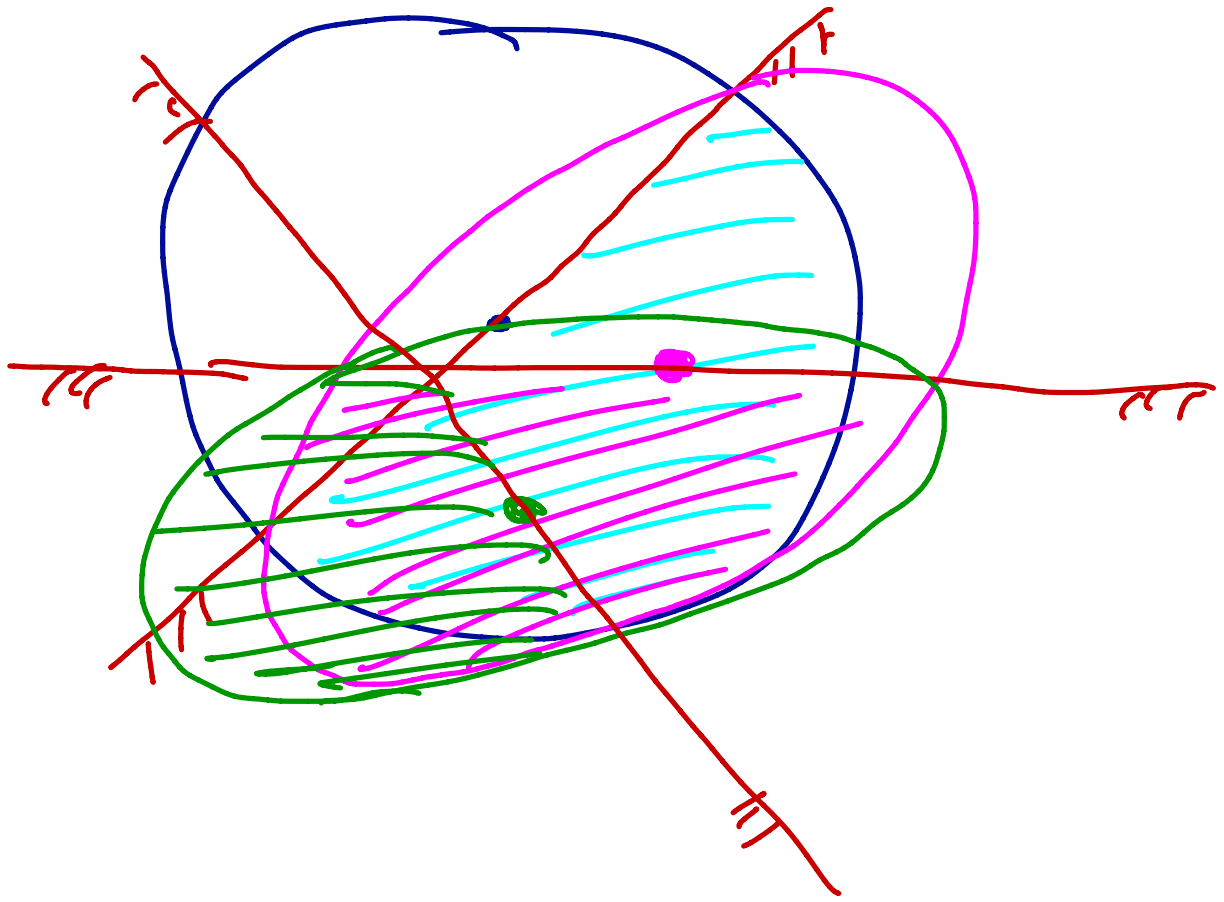


EMO 17.1.16



$$\text{ELL}(z, \underbrace{9^2}_{Q} I_n) = \left\{ x \in \mathbb{R}^n : \underbrace{(x-z)^T Q^{-1} (x-z)}_{(x-z)^T \cdot \frac{1}{9^2} I_n} \leq 1 \right\}$$

$$(x-z)^T \cdot \frac{1}{9^2} I_n$$

$$= \left\{ x \in \mathbb{R}^n : (x-z)^T \cdot I_n (x-z) \leq 9^2 \right\}$$

$$= \left\{ x \in \mathbb{R}^n : \|x-z\|^2 \leq 9^2 \right\}$$

$$= \left\{ x \in \mathbb{R}^n : \|x-z\| \leq 9 \right\}$$