

C&O 355

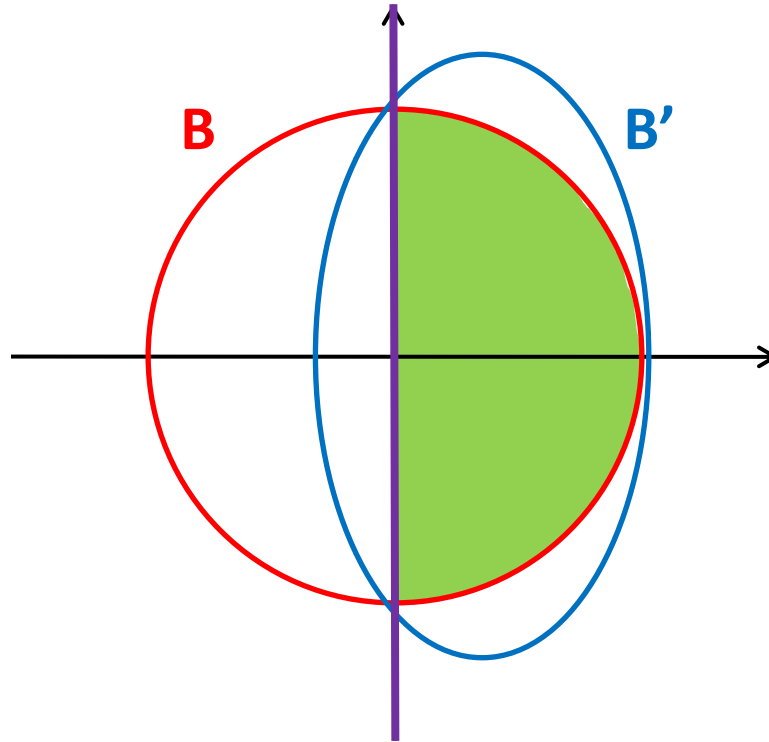
Lecture 10

[N. Harvey](#)

Topics

- Definition of Ellipsoids
- Positive Definite Matrices
- Rank-1 Updates
- Covering Hemispheres by Ellipsoids

Covering Hemispheres by Ellipsoids



- Let $B = \{ \text{unit ball} \}$.
- Let $H = \{ x : x^T e_1 \geq 0 \} = \{ x : x_1 \geq 0 \}$.
- Find a small ellipsoid B' that covers $B \cap H$.