

Homework 3 for CAP6412
Due 16:30, 9 October 2003

Related to “Normalized cuts and image segmentation”

Prove the matrix $(D-W)$ is positive semidefinite.

A matrix $A \in \mathbb{R}^{N \times N}$ is positive semidefinite if $\forall \bar{x} \in \mathbb{R}^N \Rightarrow \bar{x}^T A \bar{x} \geq 0$

Note that a positive semidefinite matrix is a Hermitian Matrix. If a Hermitian matrix has real values, then it is symmetric.