

INTRODUCTION TO COPOSITIVE AND COMPLETELY POSITIVE TENSORS

ABSTRACT

Copositive (COP) and completely positive (CP) tensors are important special cases of symmetric tensors, which can be applied to characterize many difficult problems in optimization. After introducing some basic concepts of tensors, copositivity and complete positivity, we review some classical approaches for solving problems relative to COP and CP tensors. Last, we will study an application of COP and CP tensors to bi-quadratic games.

KEYWORDS

Tensor, completely positive, copositive, duality