

# 1 Complexity, Games, Polytopes and Gale Strings

## 1.1 The Complexity Classes P and PPAD

## 1.2 Normal Form Games and Nash Equilibria

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## 1.3 Bimatrix Games and Best Response Polytopes

file: polytopes-subsection

## 1.4 Cyclic Polytopes and Gale Strings

## 1.5 Labeling and the Problem ANOTHER GALE

file: gale-def-subsection

## References

- [1] M. M. Casetti, J. Merschen, B. von Stengel (2010). Finding Gale Strings. *Electronic Notes in Discrete Mathematics* issue, pp. n–m.
- [2] X. Chen, X. Deng (2006). Settling the complexity of two-player Nash equilibrium. *Proc. 47th FOCS*, pp. 261–272.
- [3] C. Daskalakis, P. W. Goldberg, C. H. Papadimitriou (2006). The complexity of computing a Nash equilibrium. *Proc. Ann. 38th STOC*, pp. 71–78  
change ref to *econometrica*(?)
- [4] J. Edmonds (1965). Paths, trees, and flowers. *Canad. J. Math.* 17, pp. 449–467.
- [5] D. Gale (1963), Neighborly and cyclic polytopes. *Convexity, Proc. Symposia in Pure Math.*, Vol. 7, ed. V. Klee, American Math. Soc., Providence, Rhode Island, pp. 225–232  
check if right typography
- [6] J. Merschen (2012)  
thesis
- [7] C. E. Lemke, J. T. Howson, Jr. (1964). Equilibrium points of bimatrix games. *J. Soc. Indust. Appl. Mathematics* 12, pp. 413–423.
- [8] C. H. Papadimitriou (1994). On the complexity of the parity argument and other inefficient proofs of existence. *J. Comput. System Sci.* 48, pp. 498–532.
- [9] R. Savani, B. von Stengel (2006). Hard-to-solve bimatrix games. *Econometrica* 74, pp. 397–429.
- [10] L. Vécő, B. von Stengel  
ref