

Computing a Common Prior

Marianna E.-Nagy and Miklós Pintér

Corvinus Center for Operations Research, Corvinus Institute of Advanced Studies, Corvinus
University of Budapest
`pmiklos@protonmail.com`

Morris (1994) and later Feinberg (2000) showed that a finite type space (information structure) attains a common prior if and only if there is no agreeable bet in it.

We also consider finite type spaces and observe that deciding about the existence of a common prior is equivalent with considering the intersection of affine spaces each is spanned by the types of a player. This observation implies that we can apply the Fredholm alternative (Fredholm, 1903), and conclude that the computational complexity of computing a common prior or an agreeable bet is strongly polynomial.

References

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