

Entropy, ortho-homomorphisms, and quantum computation

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Kati Marton introduced an upper bound on the capacity of probabilistic graphs (defined earlier by Csiszár and Körner), using orthonormal representations, generalizing the bound given for the "ordinary" Shannon capacity by the speaker. Since then, these notions have interacted in a variety of circumstances, including statistical and quantum physics. We give a survey of some of these interesting (solved and unsolved) problems.