

TRACIAL MOMENT PROBLEMS ON HYPERCUBES

CONG TRINH LE

Abstract. In this paper we introduce the *tracial K -moment problem* and the *sequential matrix-valued K -moment problem* and show the equivalence of the solvability of these problems. Using a Haviland's theorem for matrix polynomials, we solve these K -moment problems for the case where K is the hypercube $[-1, 1]^n$.

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