

BORELL AND LANDAU–SHEPP INEQUALITIES FOR CAUCHY-TYPE MEASURES

BY

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Abstract. We investigate various inequalities for the one-dimensional Cauchy measure. We also consider analogous properties for one-dimensional sections of multidimensional isotropic Cauchy measures. The paper is a continuation of our previous investigations [?], where we found, among intervals with fixed measure, the ones with the extremal measure of the boundary. Here for the above mentioned measures we investigate inequalities that are analogous to those proved for Gaussian measures by Borell [?] and by Landau and Shepp [?]. We also consider a 1-symmetrization for Cauchy measures, analogous to the one defined for Gaussian measures by Ehrhard [?], and we prove the concavity of this operation.

2020 Mathematics Subject Classification: Primary 60E05, 60E07.

Key words and phrases: Cauchy distribution, Borell inequality, Landau–Shepp inequality, Ehrhard symmetrization.

THE FULL TEXT IS AVAILABLE HERE

* T. Byczkowski was supported by National Science Centre, Poland, grant no. 2015/17/B/ST1/01233.

** T. Żak was supported by National Science Centre, Poland, grant no. 2015/17/B/ST1/01043.