Some bounds for the Davenport constants

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Abstract

We introduce an analogue of the Davenport Constant of Abelian groups for sequences of distinct elements and use this constant to solve several combinatorial problems for $G = Z_3 + Z_3 + Z_3$. These are in turn applied to obtain an improved upper bound for the Davenport constant for $Z_3 + Z_{3a} + Z_3ab$ for all a and b.

Joint work with J. C. Schlage–Puchta.