

## On the base sizes of linear groups

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A linear group  $G$  acting on a finite space  $V$  is called coprime linear group if  $(|G|, |V|) = 1$ . Based on our earlier result that every coprime primitive linear groups admits a base size two, László Pyber asked whether there exists a positive integer constant  $c$ , for coprime linear groups, such that the probability of a random  $c$ -tuple in  $V$  is a base for  $G$  tends to 1 as  $|G| \rightarrow \infty$ . We answered this question affirmatively for solvable linear groups by showing that we can choose  $c = 9$  if the group is coprime and  $c = 13$  if the group is not coprime. This is a joint work with Zoltán Halasi.

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