

1131-46-206

**Cory Krause\*** ([corykrause@my.unt.edu](mailto:corykrause@my.unt.edu)). *Some partial results on the  $\ell_p$  spreading model problem.* Preliminary report.

In the study of the asymptotic structure of Banach spaces, strong assumptions concerning the asymptotic geometry of a space may imply facts about the original geometry. Spreading models are one common tool in this regard. For example, assume that  $X$  is a space with a basis  $(x_i)$  such that every spreading model of a normalized block sequence of  $(x_i)$  is 1-equivalent to some fixed basic sequence  $(e_i)$ . Does  $X$  contain  $[e_i]$  isomorphically? The answer to this question is known to be yes whenever  $(e_i)$  is the unit vector basis of  $\ell_1$  or  $c_0$ . It has been asked if the same is true of  $\ell_p$  for  $1 < p < \infty$ . We present some partial results on this question including a positive result under the additional assumption that all the normalized block sequences give rise to spreading models without passing to subsequences. (Received July 14, 2017)