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Neil Lyall* (lyall@math.uga.edu) and **Ákos Magyar**. *On a theorem of Sárközy*. Preliminary report.

A theorem of Sárközy and Fürstenberg states that given any $A \subset \mathbb{Z}$ of positive density, the difference set $A - A$ necessarily contains a square. We shall prove a strengthening of this result, namely that $A - A$ contains an arbitrarily slowly increasing sequence of squares. (Received August 15, 2006)